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The Texas Forum of Teacher Education, a publication of the Texas Association of Teacher Educators (TxATE), is a referred journal published once annually. Articles in the journal are directed to both campus-based and field-based Texas teacher educators. TxATE members, including graduate students, are encouraged to submit manuscripts. Authors must be active members as a condition for publication.

The views expressed in the articles are not necessarily those of the Texas Association of Teacher Educators.

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EDITOR'S INTRODUCTION

In last year's edition of The Forum on Teacher Education, the collection of research was reflective of the aftershocks of the COVID-19 pandemic. After what was arguably a massive turning point for the system of education we formally knew, the pandemic exposed and intensified student and school inequities and left behind a challenging path to recovery.

As is the promise of all educators, we rise to the task.

The articles within this issue offer a myriad of insightful opportunities for meaningful change to for the betterment of our work, to support and encourage effective educators, both pre-service and in-service, who consistently strive to deliver high-quality learning experience rooted in research-based strategies in order to ensure not only that all students' needs are met, but that our teachers are best-equipped to persist.

- *Abdelilah Salim Sehlaoui* brings attention to the need for quality professional development and support for teachers of English learners, highlighting concerns about a shortage of well-prepared teachers to provide quality educational experiences for a growing population of students.
- *Lucinda Juarez, Melissa Wetzel, Samuel Brower, Patsy Sosa-Sanchez, Criselda Garcia, Veronica Estrada, Denise Davila, Erinn Whiteside, and Kerry Alexander* share key findings gleaned from collaboration dedicated to strengthening field-based teacher education.
- *Crystal Hughes, Teri Bingham, and Raeley Bates*, in response to dwindling teacher workforce numbers, make the case for developing resilience in students through the teachers in the field.
- *Olivia Modesto* encourages educator preparation programs to incorporate research, detailing her experience with redesigning a course to meet institutional goals of increased student engagement and critical thinking skills.
- *Kimberly Reinhardt* points to the use of video feedback as a part of the core high leverage practices, which are the acts central to teaching, to impact learning outcomes across virtual and face-to-face instructional environments.
- *Michelle Parker, Amber Godwin, and Laurice Nickson* focus on the value and impact of interactive learning, especially for preservice teachers, as key for active engagement, ownership, and enriched learning experiences for all.
- *Elizabeth Lee and Desiree Hickman* underscore the importance of mentorship, professional development, and professional practice in the classroom as key to improving teacher retention rates.
- *Amber Godwin and Alma Contreras-Vanegas* looked at one regional educator preparation program to learn how secondary education candidates' hidden identities impacted perception of global issues, cultural diversity, and others.

- *Lisa Castaneda, Daniella G. Varela, and Don Jones* studied the lived experiences and perceptions of kindergarten teachers in order to understand, and reiterate, the importance of meaningful and relevant professional development for job satisfaction.
- *Maria Peterson-Ahmad and Amanda Hurlbut* offer a guide for effective use of simulated learning opportunities for teacher candidates regardless of closures or limited in-person opportunities as a result of the pandemic.
- *Amanda Mendieta, Daniella G. Varela, and Don Jones* studied the perceived impact of Alternative Teacher Certification Programs' on the teacher shortage in South Texas from the perspective of hiring principals, and provide recommendations for practice in teacher education.

The editorial team received an overwhelming number of submissions for the Fall 2022 edition, an encouraging indicator of the tireless work of teacher educators across the state all in service to the future of our teacher workforce. Accordingly, a special Winter/Spring 2023 edition of *The Texas Forum for Teacher Education* will be published in February 2023.

A call for submissions for the Fall 2023 edition will go out in January 2023 with a deadline of **July 1, 2023**. Authors are asked to direct submissions Dr. Daniella G. Varela at (daniella.varela@tamuk.edu).

Respectfully submitted,
Daniella G. Varela
Managing Editor, *Forum* 2022

CREATING MORE EQUITABLE AND SOCIALLY-JUST QUALITY EDUCATION FOR ENGLISH LEARNERS THROUGH ESOL AND BILINGUAL TEACHER PROFESSIONAL DEVELOPMENT SERVICES: THE CASE OF RESCS IN TEXAS

Abdelilah Salim Sehlaoui
Sam Houston University

Abstract

This paper calls for quality professional development and support for teachers of English learners (ELs) when only 1 out of 10 of this student population is prepared to go to college and are not provided with quality education that they deserve. This study explores and describes the various professional development (PD) services that Texas Regional Education Service Centers (RESCs) offer teachers of ELs and identifies important areas of need. The focus was on the extent to which the need of ELs is met and crucial areas of in-service teacher PD that remain challenging based on input from the RESCs. Data revealed that RESCs provide many PD services that meet the need of ELs and identified other important areas that need attention and collaboration between RESCs and institutions of higher education. The reviewed literature corroborated these findings and showed that while the population of ELs continues to grow, the number of ESOL-certified and highly-qualified teachers who can provide effective instruction to these students has not kept pace with their growing numbers. Based on results from this study and the reviewed literature, research-based recommendations are shared to create more equitable and socially-just quality education for ELs.

Keywords: ESL and Bilingual Teacher Education, English Learners, Equitable Education, College Readiness, Professional Development

Introduction

Texas Regional Education Service Centers (RESCs) are key factors in impacting school improvement and educational change. These centers are described as being systems of support that “provide general and special education support to the schools and districts in their service areas” (Peters & Svedkauskaite, 2008, p. 15). Meeting the needs of English learners and supporting school districts in this area is one of the challenges that RESCs face in Texas and the nation as this student population continues to grow. The purpose of this descriptive case study was to address and explore the extent to which 1) there is need for more collaboration between RESCs and Institutions of Higher Education; 2) the types of professional development services that RESCs offer teachers of ELs; and 3) the areas of professional development services that are most needed in the state based on input from the state’s RESCs.

Review of Literature

A Rapid Growth of ELs Student Population

According to the National Center for Education Statistics (2022) the number of English learners (ELs) is steadily increasing in all areas of the United States. Samson and Collins (2012) remarked that most teachers can expect to have ELs in their classrooms. These researchers explain that based on the Center for American Progress's estimate, one in four (25%) of children in the US come from immigrant families and speak a language other than English at home. According to Mitchell (2020) in a report written for Education Week, ELs are the fastest-growing student population in the country. Other researchers and professional organizations concluded that ELs grew 60% in the last decade, as compared with 7% growth of the general student population (Batalova & McHugh, 2010a; National Center for Education Statistics (NCES), 2021). The state of Texas is always among the states that witness a rapid growth in the population of ELs. According to NCES (2021) "California reported the highest percentage of ELs among its public school students, at 19.2 %, followed by Texas (18 %) and Nevada (17.1 %)" (p. 2). This trend of growth is expected to continue and EL student population comprises a diverse and heterogeneous body of students. Some have no exposure to English in the home, and some have limited exposure, while others are exposed to multiple languages in addition to English. According to Menken and Kleyn (2009), a significant number of ELs who fall within the category of Long-Term English Learners (LTELs) attend middle and high school nation-wide. Among the sub-categories of ELs, the LTELs' academic performance lags behind their peers according to reports by the Institute of Education Sciences (IES, 2016). LTELs constitute another challenge for educators in the nation and in the state of Texas. More than 72,500 EL students who started first grade in 2014-15 in Texas became LTELs which is more than 67% of this student population, according to Cashiola and Potter (2021).

There is also a wide range of socioeconomic status (SES) and family literacy levels among all ELs, not to mention their linguistic and cultural differences and experiences. Almost 60% of ELs nationally are from economically-disadvantaged families in which parents have limited levels of education (Peregoy et al., 2023), nearly twice as high as the share of English-proficient students (Batalova & McHugh, 2010a). According to Texas Tribune (2019), in 2018 academic year, 60.6% of students were identified as economically disadvantaged, meaning they qualified for free or reduced-price meals. According to Creamer (2020), Black and Hispanics are more than twice as likely to live below the poverty line as White and Asian.

The demographics of Texas schools have changed drastically over the past decade requiring highly qualified teachers and new approaches to better meet the needs of the increasing numbers of ELs. These numbers continue to grow as more families immigrate to the area to work in agribusiness and other industries. According to Texas Education Agency (2021), the number of students identified as ELs increased by 239,940, or 30.9 %, between 2007-2008 and 2017-2018. In the 2017-2018 school year, 19 % of students were identified as ELs, compared to 17 % in 2007-2008 (TEA, 2021). The Latino population is the largest and fastest growing minority group in schools in the state of Texas as well as nationally. According to the U.S. Census Bureau (2012), Hispanics represent 38.4% of the population in Texas with Spanish representing 90% of the languages spoken by ELs. These changing demographics and increasing numbers of ELs create a challenge for our educational system.

To meet the challenge of educating this student population, states across the nation developed policies and resources. According to Texas Education Agency (TEA)'s (2021) policies, "...every student in the state who has a home language other than English and who is identified as an English language learner shall be provided a full opportunity to participate in a bilingual education or English as a second language (ESL) program, as required in the Texas Education Code (TEC)" (Chapter 29, Subchapter B). As stated above, the growth in this student population poses a challenge in the area of teacher preparation both nationally and at the state level. The seriousness and urgency of this challenge become evident when we look at the academic performance of these students.

EL Student Population Academic Performance

What is concerning about these rapidly changing demographics is the fact that EL students typically lag behind in meeting the state and national academic standards, compared to their peers who are native speakers of English. For example, NCTE (2017) reported that ELs aged 14-18 were 21% less likely to complete high school than their native English speaking counterparts. Samson and Collins (2012) found significant achievement gaps on the fourth-grade level in states with the largest EL populations: California, Texas, Florida, New York, and Massachusetts. These percentage gaps in reading only worsened when measured using eighth grade scores on the National Assessment of Education Progress (NAEP). While the causes of these gaps may vary, data confirm that in the states with the largest populations of ELs, the achievement gap in reading tends to increase over time. This academic achievement is concerning because it perpetuates the status quo of widening the gap of opportunity between the haves and have-nots. Research has documented a critical need that exists for teachers in general and teachers of English learners in particular to contribute as members of a culturally relevant and sustaining school-wide culture to assist their students in navigating the processes related to preparing for, applying to, and enrolling in university (e.g. Carey, 2018; Gibbs Grey, 2018). Robledo Montecel (2018) described this critical opportunity gap in Texas as follows:

English language learners, who are almost one out of five students in the state of Texas, are not being well served by schools in Texas. They continue to be placed in underfunded, poorly monitored, segregated programs that do not produce results, particularly in middle school and high school... [and] only one out of 10 English language learners is prepared to go to college. (p.1)

In some Texan school districts, the percent of at risk students, mainly ELs, is 71% and the percent of economically disadvantaged students is 91%. Unfortunately, these ELs have not met the target performance measure in language arts (reading and writing) in the State of Texas Assessment of Academic Readiness (STAAR) test, which is set at 29%. Their STAAR score is at 22%. Their Texas English Language Proficiency Assessment Standards (TELPAS) test progress rate is at 32% in many districts and does not meet the target of 36% either (TEA, 2021).

It should be noted here that, according to research, states with highly restrictive and one-size-fits-all English-only policies tend to have higher achievement gaps in reading and math on the National Assessment of Education Progress (NAEP) than in states with less restrictive or bilingual educational policies (Garcia, 2011). When these policies are added to teacher unpreparedness, the potential to increase the already expansive achievement gap gets even wider, according to the National Academies of Sciences, Engineering, and Medicine (2017).

Teacher quality strongly relates to student academic achievement (Darling-Hammond, 2021). A lack of attention to specific pedagogy for ELs has curtailed their academic growth (Waxman & Padrón, 2002). The challenge of meeting this student population's academic needs is still growing nation-wide. Rumberger and Gándara et al. (2005) stated that ELs are exposed to a greater number of uncertified and beginning teachers, who lack essential pedagogical knowledge and skills, than are students who are native English speakers. Educators and parents who promote dual language bilingual education programs for creating equitable and socially-just quality education for English Learners also face many obstacles.

Challenges Faced by Dual Language Bilingual Education Program Implementation

According to research (e.g. Christian, et al. 1997; Palmer et al., 2016; Pérez 2004 among others), Dual Language Bilingual Education (DLBE) programs started through what can be described as a localized bottom-up process that is supported by parents and educators based on the languages used in their local communities, demographics, and the shared vision in their socio-economic contexts. Multiple challenges have been identified with the implementation of DLBE programs. These include 1) securing quality, equitable academic materials in the target program languages, 2) providing effective and appropriate professional development that is informed by the needs assessment of both teachers and students, and 3) administrative support for the DLBE program in the community at large (Lindholm-Leary 2001; Pérez 2004). Other researchers emphasize the following components as essential ingredients for DLBE programs to succeed. These are: 1) long-term planning and investment, 2) a research-based and context-appropriate effective model for language and content-based instruction, and 3) effective and culturally-responsive leadership that uses a shared vision with all decision makers and stakeholders (Howard & Sugarman 2007; Lindholm-Leary 2001, 2005; Pérez 2004). DLBE programs face similar challenges in the state of Texas. Palmer et al (2016) describe the challenge in Texas as an "... inherent mixed message: while the language policy promotes bilingualism, the accountability policy encourages monolingualism" (p. 394). Texas state education code mandates transitional bilingual education (TBE) to allow DLBE as a replacement for TBE in elementary grades when school districts have a minimum number of 20 ELs at a grade level who speak a common language with state standards and exams being available in either Spanish or English until 6th grade (TEC Chapter 89). On the other hand, ELs in Texas are required to meet the English Language Proficiency Standards (ELPS) and demonstrate their knowledge of English in the Texas English Language Proficiency Assessment Standards (TELPAS). ELs also have to meet the Texas Essential Knowledge and Skills (TEKS) and demonstrate their performance in reading in the State of Texas Assessment of Academic Readiness (STAAR). According to research, these high stake tests that start assessing students beginning in 3rd grade have been shown to constrain teachers, leaving little space for curricular or instructional agency (Au 2007; Bach, 2020; McNeil & Valenzuela 2001; Sloan 2005).

Additionally, the academic challenges of ELs are also due to the need for teachers to receive professional development in second language acquisition processes and research-based strategies to teach biliteracy, content, and provide families with evidence-based strategies for promoting biliteracy (Sehlaoui, 2018). These challenges are amplified when ELs are not offered adequate support to develop their biliteracies and succeed in academic content necessary to prepare them for college and career. DLBE program teachers must address academic content and second language development needs of their students (Palmer 2011; Valenzuela 2005).

While the population of ELs continues to grow, the number of ESOL-certified and trained teachers who can provide effective instruction to these students has not kept pace with their growing numbers (Peregoy et al., 2023). The National Center for Education Statistics (NCES) (2021) indicates that only 20 percent of P/K-12 educators think they are well prepared to teach students with limited English proficiency, even though 54 percent of public school teachers have these students, and this number is increasing. The NCES's report also shows that only 17% of all teachers who work with ELs meet the requirements of highly qualified teachers. Research has always confirmed this throughout the years. For example, Tellez and Waxman (2004) found out that nearly half of all teachers have received no training in teaching methodology or any other kind of preparation to teach these students. According to Franco-Fuenmayor et al. (2015), "bilingual/ESL teachers are not being provided with information about research on bilingual education and on best practices to work with culturally and linguistically diverse students" (p. 349). These researchers advocate that "[t]eachers could benefit from more PD in regards to research about bilingual programs, knowledge related to second language development, vocabulary and language development, literacy, program implementation, technology-based instruction, and differentiation" (p. 349). These findings are still relevant today in our schools and different states have developed different plans and different requirements for their teachers to face this challenge. The state of Texas is not an exception in this case. Teacher shortage in this area constitutes another challenge that faces the state. For example, from 1990 to 2016, the state of Texas reported not having enough teachers for EL students, according to the US Department of Education (2020). The teacher shortage in content area types listed in that report include ESL, bilingual education, and dual-language education.

Although there has been an overall increase in attention to multicultural issues in teacher education curriculum and instruction, only one-sixth of higher education institutions require teacher education programs to include coursework that adequately prepares mainstream elementary and secondary teachers to work effectively with English learners (Menken & Antunez, 2001; Ballantyne et al., 2008). In a survey conducted with 279 teachers in a school district, Reeves (2006) found that 81.7% of the teachers felt that they did not have adequate training to work effectively with ELs, and 53% of the teachers wanted more preparation. Surveys of attitudes and feelings of preparedness signify that ESOL-certified teachers are uneasy with their lack of knowledge in the area of applied linguistics.

To meet the growing need for ESOL-licensed teachers, some states allow teachers to add ESOL endorsement by passing a pencil-and-paper test of applied linguistics and second language teaching methodology. According to Tellez and Waxman (2004), teachers of ELs in some states such as Texas tend to choose to pass the test and obtain certification in place of completing coursework because it is a faster process. Goldhaber (2007), states that "licensure test performance is clearly not a silver bullet." (p. 31). This researcher's finding argues for a much more comprehensive system for assessing teachers to determine their preparedness. Sehlaoui and Shinge (2013) corroborated this and other findings regarding the importance of quality coursework and formal teacher education preparation as opposed to the test-only policy that proves to be ineffective. These researchers also call for the need for offering relevant professional development services and quality teacher education programs to empower educators with culturally-responsive pedagogy to meet the needs of ELs.

In describing some features of successful in-service professional development, Darling-Hammond and McLaughlin (1995 and 2000) emphasize that "one-shot" in-service programs are not

likely to alter teaching practice. Instead, they argue that teacher-knowledge growth should be built on what we know about human learning. Longitudinal data from graduates of teacher education programs indicates that quality education coursework is a more powerful predictor of teacher effectiveness than content expertise alone (Ferguson & Womack, 1993).

With the above issues and challenges in mind, this study was designed to describe the various professional development services that Texas Regional Education Service Centers (RESCs) offer teachers of English learners as well as identify areas of need when it comes to the education of ELs. According to Ausburn (2010), research on Education Service Centers in Texas is limited. Therefore, this study particularly focused on the extent to which the need of ELs is met in the state of Texas and what areas of inservice teacher professional development remain challenging based on input from the state's RESCs that participated in this study. To contextualize the study, the next section will provide more background information and the research methodology used.

Method

Setting and Background Information

This study was conducted in the state of Texas. There are twenty RESCs in the state. These twenty RESCs were invited to voluntarily participate in this study. Eleven (11) RESCs or 55% completed the Qualtrics electronic survey. To contextualize the study, the following is a brief background description of how these regional service centers were created and what their goals and purposes are.

According to TEA (2021), “the Centers are service organizations, not regulatory arms of the Texas Education Agency, and participation by schools in services of the centers is voluntary”. Chapter 8 of the Texas Education Code, enacted by the 75th Texas Legislature in 1997, specified the following purposes of RESCs:

1. Assist school districts in improving student performance in each region of the system;
2. Enable school districts to operate more efficiently and economically; and
3. Implement initiatives assigned by the legislature or the commissioner.

The first purpose of RESCs is the most relevant to this study as it attempts to describe the various professional development services that RESCs offer teachers of ELs to help these students succeed academically and identify areas of professional development that are most needed.

Research Design

The research questions for this exploratory study were:

1. Is there a need for more collaboration between RESCs and Institutions of Higher Education?
2. What professional development services do RESCs offer teachers of ELs?
3. What areas of those professional development services are most needed in the state of Texas and what areas are least needed based on input from the state's RESCs?

A descriptive case study was selected for this research project to address and explore these questions. Qualtrics software program was used to design the survey. A secure survey link was sent

to participants. Project participants answered the online survey questions anonymously. The anonymized data were then stored and maintained through Qualtrics software program. All Institutional Research Board (IRB) guidelines and protocols were followed in this study (IRB#2019307).

The questionnaire used a scale of 1-4 where 1 is for strongly agree and 4 is for strongly disagree. The participants were asked to provide their answers to whether the RESC would be interested in collaborating with one of the IHEs in the state to provide quality professional education opportunities in their region (Question 1). The participants were also asked if there was need for collaboration with IHEs to provide more professional development opportunities for teachers in the school districts that they serve (Question 2). Question 3 asked participants to check all the services and types of professional development activities that are offered to educators in their region. Question 4 asked the participants to rank order a list of 9 professional development services on a scale of 1 to 10, with 1 as the least needed in their region and number 10 as the most needed. The 9 items included things such as instructional methodology in ESL and Bilingual education; assessment and evaluation methodology in ESL and Bilingual education; and diagnosing language vs. learning challenges in ESL and bilingual learners. The survey also included an open-ended question where participants were given the opportunity to describe any suggestions, services, or types of professional development activities that they would like to see offered to educators and school districts in their region based on their needs. Cronbach's Alpha was used to measure the internal consistency of questions 1, 2, and 4. This analysis was conducted for questions 1 and 2 of the questionnaire based on a 1-4 Likert scale and was found to be adequate (Cronbach's $\alpha = .784$). A frequently cited acceptable range of Cronbach's alpha is a value of 0.70 or above (Nunnally, 1978), given the nature of this study. Cronbach's Alpha was also used to measure the internal consistency of question 4 and was found to also be adequate (Cronbach's $\alpha = .62$). According to Hair et al. (2010), values as low as 0.60 may be acceptable for exploratory and descriptive research. The survey was also pilot-tested with some educational leaders at an IHE to seek and incorporate their feedback in its design.

Both quantitative and qualitative data analyses were used to explore the patterns that emerged from these data. Qualitative data were analyzed using a domain and thematic analysis, based on the research questions, by generating categories and then themes from the answers given (Ely et al. 1991; Miles and Huberman 1994). Descriptive statistics were used to describe, analyze, and summarize quantitative data (Privitera & Ahlgrim-Delzell 2019).

Results

Figure 1 summarizes participating RESCs' answers to the following first questions:

- Question 1: Your Education Service Center will be interested in collaborating with Institutions of Higher Education to provide quality education to English learners and professional development opportunities for teachers in the school districts where you serve.
- Question 2: There is need for more collaboration to provide professional development opportunities for teachers in the school districts where you serve.

Ten out of the eleven (90%) participating RESCs expressed interest in collaborating with Institutions of Higher Education and agree that there is need for providing quality education to ELs and professional development opportunities for teachers in the school districts where they serve.

Figure 1 Need for Collaboration



Results obtained from question 3 below are summarized on Figure 2. Question 3 asked participants to check all the services and types of professional development activities that are offered to educators in their region. While all RESCs offer PD services in instructional methodology (100%), parental and community engagement was offered by 91% of the RESCs, crosscultural training for ELs’ teachers and the area of assessment was reported as a service provided by 82% of the RESCs, use of technology received 64%, crosscultural training for academic leaders, classroom supervision, and the topic of language vs. learning challenges were found to be offered by only 56% of the respondents. ELs refugees and EL with limited schooling as a topic for PD was offered by 45% only (see Figure 2). Under “Other”, 9% corroborated the results from the open-ended survey item (Question 5) below.

Results from Question 4 that asked participants to rank-order the following services from 1 as most needed to 10 as least needed in their area are presented in Figure 3.

Figure 2 Professional Development Services Provided by RESCs

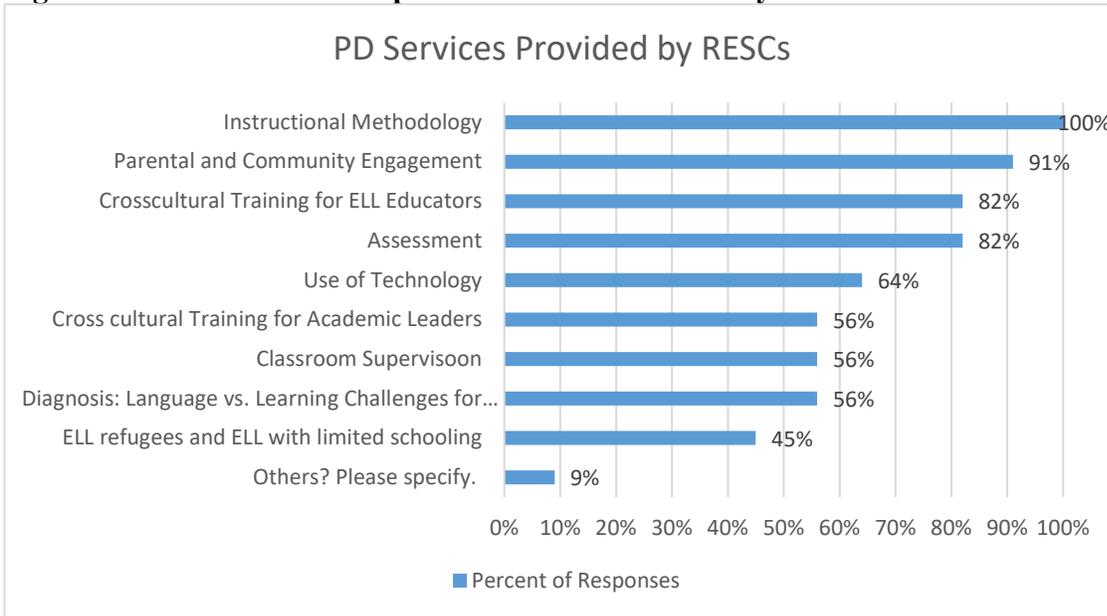
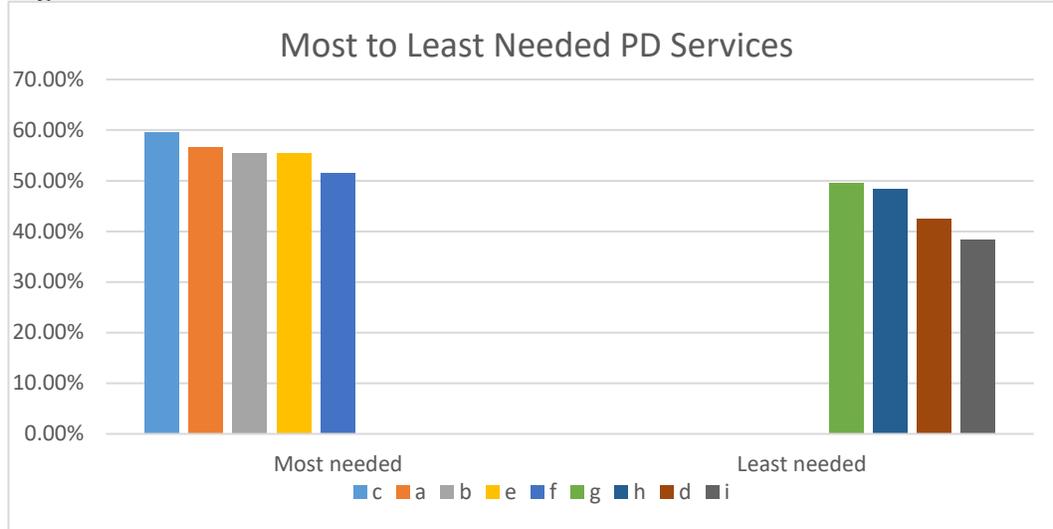


Figure 3 Most to Least Needed PD Services



Note:

- a. Instructional methodology in ESL and Bilingual education (57%).
- b. Instructional, assessment and evaluation methodology in ESL and Bilingual education (56%).
- c. Diagnosing language vs. learning challenges in ESL and bilingual learners (60%).
- d. Use of technology and Computer-assisted language learning as it relates to teaching and assessment methodology in ESL and Bilingual education (42%).
- e. Crosscultural communication training and culturally responsive methodologies for ESL and bilingual educators (56%).
- f. Crosscultural communication training and culturally responsive methodologies for administrators and academic leaders (52%).
- g. Classroom supervision and evaluation of teaching for school principals who serve English learners and linguistically- and culturally-diverse learners in your region (49%).
- h. ELs who are refugees and ELs with interrupted or limited schooling (48%).
- i. Parental and community engagement to support the needs of English learners (38%).

As shown on Figure 3, RESCs rank-ordered the listed professional development services from most needed to least needed. Items a, b, c, e, f (items underlined above) were found to be the most needed in the regional education service centers that completed this survey. Items d, g, h, and i were described as the least needed areas.

Regarding the open-ended question #5 in the survey, 100% of Texas Education Service Centers who completed the needs assessment survey indicated that more professional development is also needed in the following areas:

1. Training for ESL and Bilingual supplemental teaching certification for teachers to pass the certification exam in this content area.
2. Bilingual and ESL program implementation and support.
3. Meeting state and federal fiscal and program requirements.

Discussion

Need for More Collaboration

To address the first research question regarding the need for more collaboration between the participating RESCs and IHEs, ten out of the eleven (or 90%) participating RESCs expressed interest in collaborating with institutions of higher education to provide quality education to English learners and professional development opportunities for teachers in the various school districts and regions served by these RESCs. Professional partnerships and collaboration is exponentially more effective and more satisfying than the sum of its parts. This finding is supported by research where

emphasis on collaboration between and among different stakeholders in the educational system has been found to be key in their success (e.g. Sehlaoui & Albrecht, 2011; Sehlaoui & Albrecht, 2009). At the center of such professional collaboration is the powerful concept of “Community of Practice” (CoP). CoP is defined by Wenger et al (2002) as “...groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis” (p. 4). CoP is a social-organizational structure that offers a promising approach for engaging partners in collaboratively solving complex problems and promoting best practice. Lave and Wenger (1991) identified relationships as an essential component for learning and defined a community of practice as a system of relationships between people and activities developing with time. Although there are various forms of CoP, 3 fundamental elements are needed to make up a CoP. These are domain of interest, a community that shares that interest, and practice or shared resources. Peters and Svedkauskaite (2008) explain that as follows:

Current educational climate of radically increasing expectations for states to assist districts and schools in meeting accountability requirements, some states are building relationships with other entities in the broader statewide systems of support, such as with institutions of higher education, educational service agencies, and private organizations. Building such relationships is necessary in order for SEAs to more effectively transition from their traditional role of oversight to that of capacity building. (p.1)

This is exactly the case here between RESCs and IHEs in Texas based on data results of the study.

Type of Professional Development Services Most Needed and Offered by RESCs

As to what professional development services the participating RESCs offer teachers of ELs, it was found that these service centers offer many PD services to the school districts that they serve in their area. However, not all listed PD services were offered by all participating RESCs. This discrepancy can be explained by the fact that the needs of the regions and districts these centers serve are different, given the unique characteristics of each region. Gabriel (2007) discusses the importance of prioritization of ESCs professional development services in connection to the strategy of prioritization and the sense of urgency pertaining to school improvement as a “new emphasis on student learning [that] has created an unprecedented need for quality teachers and quality staff development, and the services of ESA's are in more demand than ever” (p. 37). This seems to be the case with RESCs in Texas as well.

The third research question explored the areas of PD services that are most needed in the state of Texas and areas that are least needed based on input from the state’s RESCs. Both qualitative and quantitative results revealed that the following PD areas or topics are the most needed:

- Instructional methodology in ESL and Bilingual education.
- Instructional, assessment and evaluation, and methodology in ESL and Bilingual education.
- Diagnosing language vs. learning challenges in ESL and bilingual learners.
- Crosscultural communication training and culturally responsive methodologies for ESL and bilingual educators.
- Crosscultural communication training and culturally responsive methodologies for administrators and academic leaders.

Previous research does corroborate these areas of need (e.g. Franco-Fuenmayor et al., 2015; Waxman & Padrón, 2002; Gándara et al., 2005; Sehlaoui & Shinge, 2013). In his program evaluation research, Sehlaoui (1999; 2011) documented a need for educators to develop their critical crosscultural communicative competence. This need was also documented among academic leaders (Chun and Evans, 2018) who need more culturally-responsive and inclusive leadership training (Sehlaoui, 2019). The area of assessment and evaluation methodology in ESL and Bilingual education remains a challenge and an area of need. Across our nation, a significant number of educators (48%) report no formal training in developing, administering, scoring, and interpreting tests, according to the Education Week's National Survey of Public School Teachers, conducted in 2018. Instructional methodology in ESL and Bilingual education, especially when it comes to making the connection between research-based practices and findings from applied linguistics remains a big challenge, according to Sehlaoui and Shinge (2013). Finally, the issue of diagnosing language vs. learning challenges in ESL and bilingual learners was reported as most needed area for PD for educators by the participating RESCs. This is also corroborated by research as an area of need for more professional development for teachers of ELs (e.g. Ortiz et al, 2020; Ortiz & Yates, 2001).

Three other common areas of need emerged from the qualitative data results in response to question 5. All participating Texas RESCs who completed the needs assessment survey indicated that more professional development is needed in the following three areas:

1. Training for ESL and Bilingual supplemental teaching certification
2. Bilingual and ESL program implementation and support
3. Meeting state and federal fiscal and program requirements.

The first area reflects the pressure that the state is facing, as far as the need for more ESOL-certified teachers who qualify to serve the needs of ELs by passing the ESL and Bilingual supplemental teaching certification tests. This need is corroborated by previous research. For example, Téllez and Waxman (2004) explained that teachers of ELs in some states such as Texas tend to choose to pass the test and obtain certification in place of completing coursework because it is a faster process. Goldhaber (2007), states that "licensure test performance is clearly not a silver bullet." (p. 31). This researcher's finding argues for a much more comprehensive system for assessing teachers to determine their preparedness rather than a pencil and paper test. Sehlaoui & Shinge (2013) also corroborated this and other findings regarding the importance of quality coursework and formal teacher education preparation as opposed to the test-only policy that has proven to be ineffective. Thus, while this area remains a challenge for many states, including Texas, with more collaboration between Texas RESCs and IHEs as well as a combination of the test-only and quality coursework training and PD services will certainly address this challenge.

The second area, which relates to Bilingual and ESL program implementation and support, has also been documented in the review of literature as a challenge not only in Texas, but many other states as well (Palmer et al., 2016). The challenge that this area of need faces comes from the high stakes tests that start assessing students beginning in 3rd grade. This practice has been shown to constrain teachers, leaving little space for curricular or instructional agency (Au 2007; Bach, 2020; McNeil & Valenzuela 2001; Sloan 2005).

The third area that needs more PD services relates to meeting state and federal fiscal and program requirements. The challenge that the state faces in regards to lack of funding is alarming. In 2010 based on data from the United State Census, Texas was ranked 44th in the nation in spending

per student. Ausburn (2010) explains that “[d]espite the fact that the state has fallen among the lowest in the nation with school funding, larger issues of funding inequity exists between neighboring districts” (p.35). Hence comes the challenge that RESCs and school districts face in meeting state and federal fiscal and program requirements.

It should be noted here that there were other areas of concern that need more training and professional development for Texan educators of ELs as reported by the literature review that was not listed by the participating RESCs. The first one relates to the alarming increase of the number of Long-Term English Learners (LTELs) as reported by researchers such as Cashiola and Potter (2021). More than 72,500 EL students who started first grade in 2014-15 in Texas became LTELs which is more than 67% of the ELs student population, according to Cashiola and Potter (2021). This is a significant increase. These researchers warned that “[t]he increased number and proportion of ELs becoming LTEL means an untold magnitude of students are positioned for future academic struggles if quick action is not taken” (p.3). The second area concerns the need for professional development services and support for teachers of English learners to assist their ELs in navigating the processes related to preparing for, applying to, and enrolling in universities to close the opportunity gap in this area.

Conclusion and Recommendations

This paper calls for equitable and quality education for ELs through professional development and support for teachers of ELs when only 1 out of 10 of this student population is prepared to go to college and are not provided with quality education that they deserve. This study explored and described the various professional development (PD) services that Texas Regional Education Service Centers (RESCs) offer teachers of English learners (ELs). It identified important areas of need when it comes to the education of ELs, based on the needs assessment data. The study particularly focused on the extent to which the need of ELs is met in the state of Texas and identified the areas for inservice teacher PD that remain challenging, based on input from participating RESCs,. Both qualitative and quantitative data revealed that the participating RESCs provide many PD services that meet the needs of ELs while both types of data results corroborated the described areas that need more attention and more collaboration among RESCs and IHEs. The reviewed literature emphasized that the population of ELs continues to grow but the number and quality of ESOL-certified and trained teachers who can provide effective instruction to these students has not kept pace with their growing numbers. This challenge led some states, including Texas, to adopt a test-only policy. Based on the results from this study and guidance from previous research, some research-based recommendations are provided to support and inform related future professional development activities to create more equitable and socially-just quality education for English Learners. These include:

- Need for more collaboration between and among RESCs and IHEs to provide quality PD services and meet the needs of ELs. This recommendation can be achieved by:
 - a) Establishing more networks and partnerships (CoPs) between RESCs and IHEs in various regions in Texas;
 - b) Building more consortia to engage in grant writing and grant-related research projects that support and meet the identified needs;
 - c) Creating more mentoring and supportive programs to meet the needs of culturally- and linguistically-diverse students and close the opportunity and achievement gaps.

- In collaboration with RESCs and IHEs, we can provide quality professional services in the identified areas of need based on input from RESCs and findings from previous research as reported in the literature review on the following topics:
 - a) Providing quality coursework that will allow inservice and preservice teachers to pass the ESL and Bilingual certification exams.
 - b) Providing professional development services that address the need for more strategies for implementing Bilingual and ESL programs and their support.
 - c) Providing professional development services that address the need for more strategies and resources for meeting state and federal fiscal and program requirements.
 - d) Offering professional development services that address the need for more strategies and a comprehensive action plan for meeting the needs of Long-Term English Learners in the state.
 - e) Offering professional development services that address the need for more strategies and a comprehensive action plan for supporting teachers of ELs in the area of preparing these students for college, helping them in the process of navigating the complex process of securing scholarships and applying, and enrolling in institutions of higher education.

- Finally, and based on insights gained from the above reviewed research studies, more collaboration between and among IHEs and RSCs is needed to offer inservice teachers quality teacher education coursework opportunities that meet the needs of ELs and their teachers in addition to passing the content test and attending research-based professional development programs. This recommendation is supported by longitudinal data from graduates of teacher education programs indicating that quality education coursework is a more powerful predictor of teacher effectiveness (Sehlaoui & Shinge, 2013; Ferguson & Womack, 1993).

It should be noted here that this was an exploratory case study with its own limitations. For example, in addition to the survey instrument used, more in-depth interviewing could have been used with some of the participating RESCs in the state. The study focused on RESCs in one state which limits the applicability of the findings to other settings and states. Future research could expand to include education service centers from various states and involve school districts' administrators and ESL and Bilingual Program coordinators to shed more light on some important issues and challenges that face educators today.

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PREPARING TEACHERS IN CLINICAL FIELD EXPERIENCES THROUGH IMPROVEMENT SCIENCE: A CONCEPTUAL ANALYSIS

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Abstract

In March 2020, teacher educators representing seven university-based teacher preparation programs (TPPs) in the state of Texas pivoted their clinical field experiences online in response to the state's mandate due to the Covid-19 pandemic. This group collaborated as a networked improvement community (NIC) utilizing an improvement sciences approach for nearly three years to strengthen field-based teacher education. In collaboration with two educational foundations, NIC members took stock of what they knew about coaching from working together and how that knowledge might be adapted to the remote environment. In this paper, the authors identify four focus areas in moving to remote teaching and coaching: exploring program visions and enactments, teacher candidate support, mentor and field experiences support, and building reciprocal professional communities. Preliminary findings of the initiated change within institutions based on social justice and equity that will support learning in hybrid or remote context are explored and analyzed.

Keywords: teacher preparation programs, hybrid learning, remote learning, reciprocal professional communities, improvement science, networked improvement communities

Introduction

In 2018, a new initiative, Raising Texas Teachers, convened 11 university-based teacher preparation programs for a two-day “explorer’s workshop” for investigating persistent problems of practice. After considering the challenges teacher preparation programs (TPPs) face, the university-based programs form two groups focusing on different problems. The purpose of this paper is to share an overview of the systematic analysis of these four focus areas of moving to remote teaching and coaching through the lens of researchers using Plan-Do-Study-Act (PDSA) inquiry cycles. This paper informs the work of the seven universities (of which six are Hispanic serving Institutions, meaning 25% or more of the students identify as Hispanic) which begin to center their work on clinical field experiences, but its scope is not intended to be a comprehensive review of the work.

Through the guidance of the Carnegie Foundation for the Advancement of Teaching staff, participants learned about improvement science as a new approach for engaging in continuous improvement by creating a networked improvement community (NIC) to collectively “learn by doing.” As a learning community, NIC members represented a diverse group of programs committed to disrupting current understandings and challenging long-standing inequities in education collectively for the purpose of developing high-quality, clinically rich preparation for all aspiring teachers. The varying contexts within the universities provided new understandings about the field and contributed to the sensemaking process that was critical, particularly in light of the whole scale virtual instruction shift from previously relied upon from almost entirely face-to-face instruction TPPs relied upon prior to the pandemic. All necessary ethics approvals were obtained from the Institutional Review Boards of our NIC partner institutions -- University of Texas at Austin, University of Houston, Our Lady of the Lake University-San Antonio, University of North Texas - Dallas, and University of Texas Rio Grande Valley.

Through the co-creation of knowledge through dialogue and the application of improvement science tools, such as developing aims and driver diagrams to address the problems of practice in TPPs, the group determines two persistent problems in the field, providing high-quality field experiences to transform the teaching practice and improving communications between university Supervisors, Mentor Teachers, and Clinical Teachers and coaching to build on innovative teaching practices for learners in the 21st century. While NIC leadership created organizational and operational activities for partners throughout the pandemic, such as scheduling of continuous monthly online meetings and engaging university partners in monthly coaching huddles, NIC members engaged in discussions to explore and determine the impact of remote interventions on specific problems of practices of the TPPs at the university/district partnerships levels. Specifically, through a series of learning lab sessions in which Clinical Teachers go to receive academic support, or to the programs schools create that deliver academic support, university teams continue learning to coach, using the PDSA inquiry cycles, and applying improvement science processes and tools grounded in social justice and equity for developing working theories for scaling promising practices in delivering high-quality clinical preparation in programs.

Framework Development

The NIC in the initial convening meetings began exploring the process of using improvement science principles or constructs, (to be identified in section 2.1 of the paper) for creating a working theory of improvement with emphasis on equity-focused practices for collectively tackling a persistent problem of practice in teacher preparation. This improvement science lens of analysis affords the cohort of universities to examine variability factors and individual contexts for testing a hypothesis for improving

the clinical experiences of teacher candidates and improving coaching in programs. In conclusion, a description of the implications for adopting improvement science advances the framework for continuous improvement. The implications of sharing the NIC's journey may prove valuable to other programs that struggle with operationalizing improvement science while maintaining an intentional focus on equity-focused practices.

The paper begins with a description of the constructs of improvement science coupled with the creation of a NIC for accelerating learning. Key operational definitions along with a brief review of the related literature are provided. What follows is a description of the process for developing a working theory of improvement with an emphasis on the intentionality of adopting an equity lens in the process.

Conceptual Framework

In this first section of the paper, we describe in detail the conceptual framework for testing the theory resulting from PDSA inquiry cycles by NIC members, along with significant learnings to launch a subsequent cycle in the iterative process.

Improvement Science

With the complexities of improving programs in education systems, using improvement science as a framework for gaining insight into the overall system that is yielding the current outcomes proves novel in the field. The foundations for improvement science are rooted in the early work of Walter A. Shewhart and W.E. Deming, (1986). These improvement science foundational principles would continue to be applied to a wide range of industries (Deming, 1986, 2000). Improvement science is a method for building knowledge of systems that produce outcomes and theories of enacting changes to these systems (Lewis, 2015). Improvement science as an applied science has improved practice in industry and health care (Rother, 2009; Gawande & America, 2007) but more recently permeated into the education field showing positive outcomes (Bryk et al., 2015). The field of education is a complex one that requires multidimensional systems to work together for the betterment of our students in public education, who are led by the product of educator preparation programs. The nation's schools are in constant reformation, by which some have been more detrimental than beneficial in improving schools (Bryk et al, 2015).

For school reform efforts, improvement science enables educators working in different contexts to identify contextual factors causing challenges and allow inquiry cycles to be implemented and tested to refine change models (Wright, 2019). Six core or reform principles/ constructs driving improvement are that reform is "(1) problem-focused and user-centered work; (2) focus on variation in performance across contexts; (3) consideration of local contexts while 'seeing the system'; (4) embracing of measurement for area of improvement; (5) rapid cycles of disciplined inquiry; and (6) focus on improvement through organizing as networks to share goals and align clear measures of improvement" (2019, p. 5). The improvement science framework embraces different types of knowledge for solving problems such as discipline specific knowledge along with knowledge of systems, variation and psychology (Lewis, 2015).

Review of Literature

The review of the literature on improvement science that follows in this paper highlights evidence of improvements in supporting beginning teachers in three large urban districts utilizing improvement science methods for solving persistent problems (Dolle et al., 2018). Some teacher preparation programs

have embraced improvement science as an approach to build capacity in organizational learning for engaging in continuous improvement (2018).

In the specific context of Clinical TPPs, applications of NIC principles and implementation of the improvement science framework, include literacy learning interventions by pre-service teachers for English language learners (Shaw, Lyon, Stoddart, Mosqueda & Menon, 2014); support for beginning teachers in the field by building a teaching effectiveness network (Hannan, Russell, Takahashi & Park, 2015); and improvement and progression of secondary mathematics teacher preparation (Martin & Gobstein, 2015).

Other pockets of research /scholarship have included a study conducted by Wright (2019) in studying the effectiveness of improvement science in education as an alternative to the traditional professional development of STEM teachers. Although emerging, the literature supports the use of improvement science to develop an understanding of the systems for reform efforts in the field of education (Bryk, et. al, 2015).

In a practical sense, the PDSA inquiry cycle provides educators with small-scale improvements to learn and expose gaps in understanding (Lewis, 2015). Within the NIC the improvement science framework supported disciplined inquiries in teacher preparation practices and supplied tools for understanding and studying the variations that exist in the curriculum and delivery of clinical field experiences.

Accelerating Learning within the NIC

By forming a NIC the group of teacher preparation programs began a process of mapping a complex problem space, which allowed a closer look at accountability relationships and the roles in the system for creating a cohesive working theory for improvement designed with the system in mind. The process includes spending 1-3 years learning together to share a language, collect, share and analyze data while making small changes in programs. Working collaboratively in NICs has been defined as an approach to quality assurance in education (LeMahieu et al., 2017). NICs are distinguished by four characteristics:

1. focused on a well-specified common aim;
2. guided by a deep understanding of the problem, the system that produces it, and a shared theory of improvement (i.e., an understanding of what to do about the problem);
3. disciplined by the rigor of improvement science; and,
4. coordinated to accelerate the development, testing, and refinement of interventions along with their more rapid diffusion out into the field and effective integration into varied educational contexts.

The process of accelerated learning also occurs through the shared language of improvement science work which became integral to creating a new learning community focused on improving the quality of clinical experiences in teacher preparation. Further terms of improvement science work are defined here as follows:

- **Aim Statement:** A statement, worded as a goal, which illustrates the aspiration of the improvement effort. An aim is accompanied by a theory of improvement, or driver diagram, which articulates what change can be made that will result in improvement.
- **Driver:** A structure, process, or norm within the system that, if changed, will result in improvement.

- Measurement System: A measurement system includes leading (ongoing) and lagging (summative) measures that will indicate progress towards an aim.
- PDSA Inquiry Cycles: An inquiry-based cycle of improvement work that helps a group learn about actions that might influence a driver and, ultimately, the aim. These cycles are accompanied by a collection of formative process measures and summative outcome measures. Measurement is frequent and helps programs to understand whether the changes made to clinical experiences are leading to improvement.

Developing a Working Theory of Improvement

NIC members prior to the pandemic had been meeting once per year face-to-face in Austin, Texas and online monthly to work on part of the collaborative work of the NIC included discussions centered on new insights into problems and potential solutions in clinical teacher performance. Developing a working theory of improvement can be defined as a view of a tentative hypothesis relating to ideas for improving the “system of interest” (Provost & Bennett, 2015). The initial phase in the continuous improvement efforts using this approach begins with articulating an aim statement outlining the desired outcomes, an intended improvement with direct outcome measure, and a timeframe. As a NIC, efforts toward increasing the quality of clinical experiences through various mechanisms are identified. The subsequent phase involves developing a driver diagram that serves as a visual conceptual map of the structures, and processes in the system that requires change to alter the outcomes (see Figure 1). Notably, the fundamental inquiry guiding the development of the aim is assessing whether teacher candidates (TCs) leaving our university-based programs are having the field experiences they need to build transformative practices as teachers. Our aim statement operationalizes “transformative” as the culturally responsive, content-rich, social-justice focused and reflection-based practices that will sustain teachers in their careers (see, for example, Paris, 2012), and it also articulates a theory that these experiences would be high-quality if they reflected and produced transformative stances.

Conceptually, the driver diagram represents the key leverage points in the system as primary and secondary drivers that need to be attended to for designing change ideas that can advance the outcomes affiliated with the aim. As noted, parallel to this process involves diving deeply into discussions about providing all teacher candidates a quality clinical experiences program resulting in “less variability” amongst the different contexts. The final aim statement develops over time as a goal of, “...increasing the percentage of teacher candidates experiencing a cohesive network of high-quality equity focused coaching supports (Paris, 2012; Paris & Alim, 2014; Ladson-Billings, 2014). A driver diagram guides the process for accomplishing the aim in instances when there may not be evidence about how to produce positive outcomes and initiates new learning opportunities.

Analysis yields four foci known as primary drivers from the NIC for future research and inquiry towards our aim. The drivers identify the essentials in the system that are “necessary and sufficient for achieving intended outcomes” as described by Provost & Bennett (2015, p. 39).

While exploring potential primary drivers, we focus and decide upon four because of simplicity and usability (see Figure 1). These four drivers, or levers contribute to our work towards our aim including 1) exploring vision and program alignment and enactments, 2) field supervisor (FS) and mentor teacher (MT) support; 3) TC support, and 4) building reciprocal professional communities. Figure 1 is an illustration of our primary and secondary drivers as described below, as well as the change ideas we tested within each driver.

Enacting Improvement Science in this NIC across Institutions

In this section, we discuss in detail our vision and specific NIC partner program alignment and enactments across the institutions along with significant learnings to launch a subsequent cycle in the iterative process. The work of program alignment and enactments in sharing the NIC's journey may provide benefits to other programs that struggle with operationalizing continuous improvement while maintaining an intentional focus on equity focused practices.

Context for Coaching and Learning through Improvement Science

With over 170 universities and colleges in Texas, the enrollment of post-secondary education has reached approximately 1.5 million students. The universities represented for the purpose of this paper come from a wide range of higher education institutions varying in size and type such as private and public. According to the Texas Education Agency (TEA) enrollment in Texas Public Schools, the state's teachers serve approximately 5.37 million students in grades Pre-kindergarten through twelfth grade, numbers that were reported during the pandemic (Texas Education Agency, 2021). The diversity is extensive in that the 2020-2021 enrollment demographics showed 52.88% of students are Hispanic, 26% are White, 12.7% are African American, with the remaining percentages attributing to American Indian, Asian, Pacific Islander, and Multiracial, as choices provided by the enrollment applications in Texas public schools. In addition, TEA identifies instructional programs and special population groups according to services provided by school districts. Thus, many students are identified as bilingual or ESL, along with being an English Learner, gifted and talented, or having dyslexia or any other subgroup that may pertain to the student. However, it can be estimated that approximately 21% of students are in bilingual and ESL programs, and approximately 21% are identified as English Learners (Id).

Vision/Program Alignment and Enactments

Definition. Within a Teacher Preparation Program (TPP), *alignment* means the continuous effort to align courses, field experiences, and measurement with the vision of the program. Vision includes both the defined quality in terms of a TC leaving TPPs as well as quality in terms of a field experience that leads to TC learning. To analyze the systems of our TPPs, the question of how aligned these areas are arises, as do the design actions to increase alignment with program vision and practices among faculty/coursework, field supervisors/mentoring and coaching, mentor teachers/mentoring and coaching, and curriculum of the field experience. Within a TPP, *enactment* means the establishment of authoritative decisions and actions to make changes aligned with the vision of the program. Secondary drivers in this area include internal alignment in program design, assessing the value and quality of the field experiences, and communication between MTs and FSs. PDSA cycles used across institutions include enactments to analyze our field/course connections, assessment systems, and alignment of coaching across field experiences and courses. Next, we provide three examples of how the universities in the NIC embarked on alignment and enactments within the program.

University of Houston

Prior to the pandemic, the University of Houston (UH) concentrated on the primary driver of vision/program alignment and enactment. Internal alignment in the program design is in the secondary driver and we begin to examine how frequently our TCs are participating in a practice-based curriculum that provides opportunities for in-course coaching. During the pandemic, the focus of our first PDSA

cycle is on a primary driver, internal alignment in the program design (See Figure 1.). To ensure our TCs could enact practices in their clinical field experiences, university researchers want to examine the number of assignments in the program that are directly connecting theory to practice. The iterative process of the PDSA cycle allows us to engage faculty in a review of their course assignments in small cohorts. Given that PDSA cycles support small changes over time, this supported greater buy-in from faculty to engage in the process as it is not a program overhaul. Rather, it is sustained programmatic improvement conducted through the use of the PDSA cycle process in small cohorts of faculty members.

By applying pedagogical and curricular concepts is a core foundation of our teacher preparation program, TCs learn new theories and understand teaching methods through a balance of conceptual, application-based, and field-based assignments. Making sense of new theories, though, does not bridge the theory-to-practice divide unless there are opportunities to apply new learnings in courses and clinical field experiences. As part of the PDSA process, faculty are asked to categorize their major course assignments under three broad categories of conceptual or theoretical, application-based, and field-based. Faculty come together to define these three categories. The PDSA cycles are to be conducted in horizontally aligned cohorts. Through the PDSA cycle, findings indicate that at least half of the course assignments are application and/or field based. Findings also indicate that most of those assignments are in the last year of the program as Clinical teachers conduct their full year of student teaching. The learnings of this PDSA cycle promote internal alignment and enactments in the program design. An outcome is that faculty continuously work to redesign the first year of our program to ensure candidates receive greater opportunities to apply new learnings in both their courses and field experiences.

University of Texas Rio Grande Valley

The high-level element of work at The University Texas Rio Grande Valley (UTRGV) is in the system of program alignments prior to the pandemic. In our Teacher Preparation Program (TPP) we launch a PDSA to examine coherence among the program's vision, field/clinical experiences activities, and application in the field placement at a large high needs' campus serving 49% in Bilingual/ESL students. In searching for alignments between the UTRGV TPP's field assignments relative to the high school's academic needs, the PDSA supplied additional learning about the administrators' and cooperating teachers' views in terms of the value and practicability of the TPP's programmatic key assessments delivered in clinical experiences placements. The major learning is that the current field experience curriculum including the key assessment holds value and benefit as cooperating teachers notice. Cooperating teachers also notice that contrary to the predictions researchers made as part of planning in the PDSA, there is more alignment between the program's key assessment and the value and relevance of the field assignment. Surprisingly, cooperating teachers identify that the major challenge is not having structured time to discuss the delivery of the key assessment and discuss instruction along with planning together. Other significant findings are that teacher candidates articulate their role and expectations well, but the cooperating teachers want a formal orientation from the program and ongoing communication during the placements. In planning the next cycle of the PDSA, the pandemic forces school closures and pauses face-to-face field experiences at this campus. As field experiences begin to resume, the program will respond to the logistical challenges we identify and continue to solicit feedback regarding the program's field experiences curriculum in the inquiry cycle.

Our Lady of the Lake University-San Antonio

Prior to the pandemic, Our Lady of the Lake University-San Antonio (OLLU-SA) researchers explore the primary driver of vision/program alignment and enactment, as well as the secondary driver of communication between MTs and FSs, leading in testing of the change idea of collaborative coaching. From previously acquired knowledge through system analysis, findings indicate that pathways for FS communications with MTs often leave MTs solely relying on TCs for information. As a result, during the pandemic, online discussions occur inviting MTs to participate in the TCs orientation, which ultimately leads to change in the scheduling and implementation of Pre-, Observation, and Post-Conference (POP) cycles for TCs (Authors, 2019). Another change that occurs during the pandemic is that Instead of the FSs independently conducting four POP cycles with the TC, MTs collaboratively provide input, evaluation, and insights into all coaching cycles and MTs and become responsible for leading a one collaborative POP cycle resulting in five POP cycles of the TC overall. This inclusion process of the MTs becomes more instructive and supportive for TCs because it more readily explores part of their day-to-day challenges from the perspective of the day-to-day review of the teacher mentoring them. The significant learnings of this PDSA cycle create synergistic outcomes not only for the TC, but deeper, collaborative learnings and co-leadership responsibilities and satisfaction in the coaching process results for both FSs and MTs. In the next section, the second driver, we define and illustrate how we explore this driver in the NIC.

Field Supervisor and Mentor Teacher Support

As part of the PDSA inquiry cycles, NIC members learn that FSs and MTs ask for and want greater support on coaching due to the stress of the pandemic issues and the new challenges in teaching completely online.

Definition. Within a TPP, FS and MT support is defined as the ways teacher educators who coach and mentor within the field are prepared for and supported during the field experiences. Through systems analysis, an exploration of whether our FSs and MTs feel supported occurs, and an identification of actions that would further support these key MTs is examined. NIC members analyze mentor support from the TC perspective through surveys, from the MT and field supervisor perspective through interviews, and continue to analyze program documents. Findings reveal secondary drivers in the area of MT and FS support, as well. We also closely examine secondary drivers (See Figure 1).

University of North Texas Dallas

The University of North Texas- Dallas (UNT) Dallas, through the use of the PDSA cycles considers the examination of the TCs reflective component of the POP Cycle evaluation as an assessment of the value and quality of their field experiences. As the pandemic continues to disrupt, the coaching routine is altered, changing the TPP from face-to-face and in person to remote and virtual which proves to provide new challenges. UNT Dallas' goal is to sustain the support and mentorship to the TCs via the MT and UFS coaching and mentoring that happens during the field experience throughout the pandemic. To examine secondary data provided by the TCs, the emphasis is placed on objectively evaluating their reflective responses about coaching and mentoring that happens before, during and after the POP cycle and to continue to provide high quality TC support to the pre-pandemic level.

While the responses are valid and demonstrate objectivity on how the TCs feel about the results of their field experiences, they are not what was anticipated at the beginning of the PDSA cycle, nor are they able to provide objective comments on the effect of the coaching and mentoring during the virtual event provided by the MT and UFS. Thus, future PDSA cycles begin to provide a need for change, including greater encouragement that will allow for continued efforts to modify and revise the work to examine further the program enactments that may be helpful in the assessment of the value and quality of the field experience. For example, rewording the reflective question to demonstrate best if the support from MTs and UFSs are supporting the coaching and mentoring as needed by the TCs. While reflective narratives from the TCs may bring forth limitations, it is important to consider their objective narratives in identifying the effects of virtual or remote coaching forced by the pandemic and how to improve the coaching and experiences.

University of Houston

At UH, to explore the primary driver for supporting MTs and FSs, we focus on increasing communication between MTs and teacher candidates (TCs). We conduct a PDSA cycle on the use of Slack, a digital communication platform. Slack is a free communication program that allows teams to connect through whole-team channels and direct messaging. Researchers find that email and Blackboard communication are not conducive to collaboration and want to evaluate Slack as a change idea in the hope that the coaches' use of an instantaneous digital tool, could occur simultaneously and support greater collaboration. In adjusting our PDSA cycles during the pandemic, findings indicate a shifting when coaches reach out through Slack or the types of tasks participants are asked to complete, such as directly responding back to the coach or having to engage in a community-building activity, Slack participation is minimal to non-existent. In conducting follow-up interviews with TCs, we learn that they are reluctant to use Slack as it is not a communication tool they are using for their everyday digital communication, and they remain unfamiliar with its functionality. While this is not the outcome hoped for, the outcome alerts the researchers that any use of digital tools would require training or need to be something the participants are already utilizing.

Teacher Candidate Support

We learn as part of the PDSA inquiry cycles that TCs ask for and express wanting an even greater need for coaching, due to the stress of the pandemic issues and the new challenges TCs encounter, compounded by the need for completely online education.

Definition. Within a TPP, candidate support is defined as the ways a TC is prepared for the designed field experiences and how we support ongoing learning within those experiences. We examine secondary drivers including individualized support for TCs through coaching, increasing TCs' active engagement in coaching, and TC lesson planning. Change ideas that typically derive from PDSA inquiry cycles include the use of collaboratively designed protocols for virtual coaching, real-time coaching huddles in virtual teaching contexts (Fogarty & Schultz, 2010), and using various technologies in support of peer (TCs) coaching.

The University of Texas at Austin

The University of Texas -Austin (UT) focuses on the primary driver of TC support through the secondary driver of increasing active engagement of TCs in their coaching through a PDSA about

professional development about coaching to TCs. In the PDSA cycle, we provide professional learning opportunities for TCs about coaching. For example, we demonstrate how to shadow the MT and how to co-teach so they will be able to ask for opportunities with more agency. UT-Austin NIC partners' reflections on multiple cycles of PDSAs occur during coursework, creating more active and engaging learning environments for TCs.

Our Lady of the Lake University-San Antonio

In a PDSA connected to this primary driver of TC support, OLLU-SA focuses on the secondary driver of supporting culturally relevant lesson planning for TCs. Through information collected via TC surveys, TCs report self-confidence and self-efficacy issues surrounding lesson planning alignment to the Texas Essential Knowledge and Skills (TEKS) and the English Language Proficiency Standards (ELPS), the state's language learning standards, and report wanting more support in including integrating higher-order thinking questions into lesson plans and becoming more thoughtful in opening, closing and connecting lessons. TCs survey responses reveal having difficulty in planning for units, as they discuss having spent time practicing single lesson designing and mini-lesson creating prior to their year-long Clinical Teacher field placement. The PDSAs change ideas then focus on incorporating more explicit systematic culturally relevant inquiry and instruction, as well as TEKS/ELPS content in courses and encouraging planning in courses to encompass systematic unit planning prior to the clinical teaching year.

University of Texas Rio Grande Valley

At UTRGV, faculty members engage in a PDSA cycle that supports TCs with learning to teach two high-leverage practices (HLPs) including leading a group discussion and eliciting and interpreting students' thinking with mixed-reality simulations (MRS). High-leverage practices are described by TeachingWorks (<https://www.teachingworks.org/>), as fundamentals of teaching that are used constantly, are critical to helping students learn important content, support students social and emotional development, and are used across subject areas, grade levels, and contexts. HLPs are research-based practices that are to be used broadly and often in teaching (Maheady, 2015). They are "high-leverage" not only because they matter to student learning but because they are basic for advancing skill in teaching.

The change idea in this PDSA was to test the extent to which going through the process of viewing and decomposing a lesson targeting these two HLPs via video demonstration prior to rehearsing their own lesson in a mixed-reality simulation affected the TCs' sense of self-efficacy and cultural responsiveness. TCs completed parts 2 and 3 of the Teacher Beliefs and Mindset Survey (TBMS) before and after the MRS teaching demonstrations measuring their perceptions of teaching self-efficacy and cultural responsiveness; responded to three reflection questions; and completed self-assessments on their MRS teaching demonstration. These data indicate that TCs attribute increased levels of self-efficacy to the experience of viewing and decomposing the HLPs using video representations of practice prior to rehearsing them in mixed-reality simulations.

3.4 Reciprocal Professional Communities

Perhaps from the necessity of online instruction that occurred during the pandemic, NIC partners spent time collaborating with district and other partners.

Definition. Within a TPP, *reciprocal professional communities* (RPCs), are defined as both teacher preparation partners (TPPs) and school communities, such as and K-12 districts, who share understandings of one another's visions for teacher preparation; a structure for learning together about field experiences and how they support learning for mentors and TCs; and shared understandings of how to learn together to improve field experiences. We explore RPCs through our systems analysis whether we had shared understanding between the TPPs and district partners. Actions in PDSA cycles include using interviews to develop reciprocal relationships in support of a candidate within a field experience, for example, sharing our visions/goals as institutions; using data together, and developing a process for applying what we learn to our policies and practices.

Our Lady of the Lake University – San Antonio

One example of RPCs at OLLU-SA, extends from TPPs' field supervisors' work with MTs in collaborative coaching, as discussed above in section 3.1. The focus of the PDSA is on the mutual sharing of ideas and data within collaborative POP cycles. This RPC model allowed for joint coaching of strategies to improve TC online instruction throughout the field experiences. Because collaborative modeling arises out of reciprocity, an outgrowth of mutual learning and sharing of what strategies might be useful in any given time using technology tools to engage students. Joint solution thinking and implementation arose, between field supervisors, MTs and TCs, regarding greater support for differentiation of instruction. The increased communication enabled transformative coaching.

In the following section, we describe how we drew on our knowledge of systems and our innovations from our first years of work as a NIC when we were in the position to move into remote, hybrid, and hyflex modes during the Covid-19 pandemic.

Shifting During the Pandemic

We describe and narrate significant learnings from the shifts we made across the institutions between Spring 2020 and the present.

Drawing on Knowledge in Shifts to Remote and Hybrid Coaching

Spring 2020 proves to be a sharp awakening of how much reliance is on face-to-face coaching and in-person observations in our TPPs. Out of necessity we make hard, quick shifts to using Zoom and other online platforms for coaching in response to the shift in teaching contexts. Those shifts in teaching contexts include the following:

- Some university courses that previously included coaching opportunities shift to asynchronous modalities (online discussions, sharing videos to communicate course content);
- Clinical field experiences for TCs transition to being online as our local district partners move to online-only delivery. Some districts attempt to recreate a normal school day by holding synchronous class through sessions Zoom while other districts are mostly asynchronous with teachers offering sparsely attended office hours. The variation in online delivery amongst local districts, in most instances, prevent TCs from engaging in teaching online as TCs often become the instructional technology support for their MTs; and
- Most TCs do not receive face-to-face observations or conferences with MTs.

The priority of our partners in schools, MTs, is to ensure that the mental health and wellbeing of the students is being met as many students lack the technology requirements to fully participate in online school. Thankfully, our TCs could often support their MTs in this process while also assisting in the online environment through small-group discussion or one-on-one mentoring.

Over the summer of 2020, the opportunity to prepare more for the upcoming academic year finds partner universities asking how the current driver diagram relates to our shift to remote and hybrid coaching. We knew our district partners would begin the school year online with most reopening their physical campuses within the first two months. Our TCs began the school year conducting their clinical field experiences from home, as they did in Spring 2020, but as K-12 school reopened, TCs mirror their MT by teaching face-to-face, continuing to teach virtually, or teach in a hybrid manner. Additionally, local district partners request that coaching of TCs by field supervisors be conducted virtually to reduce transmission risks in classrooms. This shift at all large urban universities and school districts to virtual coaching also shifts all the PDSA work. In the next section, we share a few examples of how our PDSA cycles shift during this time across the four drivers. In Figure 1, we create shaded change ideas and additional drivers that we identify.

PDSA Cycles Shift

Most of our efforts specifically align with the primary drivers of Vision/Program Alignment and Enactments and in program design and supporting TCs during virtual teaching (see Figure 1). In terms of the primary driver of Vision/Program Alignment and Enactments, across universities we engage collectively in exploring how using a single, virtual coaching protocol would bring alignment to coaching in virtual settings. At UH and OLLU-SA, the PDSAs focus on the secondary driver of Internal Program Alignment in Program Design. A result of using shared protocols in virtual spaces is that more time one-on-one could be spent with TCs as field supervisors are no longer traveling to a multitude of school sites, up to two hours on the road daily. Not spending that time on the road and instead, spending it with TCs through virtual coaching meetings, allows them to spend more time coaching and mentoring candidates. This PDSA intersects directly with the primary driver of TC Support and the secondary driver of Providing Individualized Support for TCs.

Also connected to this secondary driver of Providing Individualized Support for TCs, at UT-Austin, the teacher educators use PDSAs to explore virtual huddling when coaching in the online environment. They pre-conference to decide on the appropriate technology (i.e. Google Docs, private chat in Zoom, or phone chat), and experiment with what kinds of coaching huddles would be most impactful and least distracting to the TCs. OLLU-SA also focuses on the secondary driver of Providing Individualized Support for TCs by providing new technologies to coach virtually, when they identify an inequity in coaching support for TCs who are teaching online versus those who they are teaching in person in face-to-face classroom and receiving more support. Supporting transformative coaching requires coaching using break-out rooms that blend both groups of students in break-out rooms to complete collaborative assignments such as on PearDeck, or discussions and peer review of writing assignments. The learnings from PDSA cycles informs this shift in hybrid/hyflex virtual contexts.

At UTRGV, the same primary driver is targeted for increasing greater alignment of program goals along with the secondary driver of providing support for TCs by using the common protocol in a mixed-reality simulation learning environment for coaching. With the pivot toward virtual field experiences including engaging TCs in instructional and educational activities to fulfill state-requirements, TCs

complete video-based analysis, engage in practice teaching sessions in their coursework, but also have the opportunity to join virtual coaching sessions on classroom management and parent-teacher conference scenarios using mixed reality simulations. PDSA cycles provide details about ways to improve the experience for providing TCs support in these areas.

Learnings from PDSA Cycles in Virtual Settings

Although these findings are preliminary, we share a few points about what we learn from shifts into virtual settings.

First, NIC partners shift the definition of clinical field experience in year two as the move by all K-12 students to remote settings occurs in spring 2020. To our original list of features of coaching, the following are included:

- Coaching can occur through asynchronous (e.g., coaching through email and discussion posts) and synchronous (e.g., online discussions through Zoom, real-time chat) processes;
- Coaching relies on tools that are shared between TCs and FSs/MTs;
- Coaching can occur around synchronous (e.g., live observations) or asynchronous observations (videos of teaching);
- Teaching experiences can be either face-to-face, hybrid, hyflex, or remote; and
- Coaching takes into account the context of remote learning (e.g., respect for boundaries for people working in the home; taking care of children; etc.).

Articulating these features of virtual coaching expands our working definition of the spaces that we hope to study in order to move closer to our collective aim as a NIC. We see the importance of the early work we accomplish across programs to strengthen the programs we have from within, the first driver of our model; as well as the reciprocal partnerships between the TPPs and the districts. Those alignments and relationships enable us to innovate together to continue to provide coaching and field experiences for TCs when the educational mode changed.

We discover by examining our learning and work together as a NIC over time, that implementing improvement science develops into the democratization of research. Formalizing informal practices or practices that were not previously being tested results in bringing multiple stakeholders into the learning process. Engaging our field supervisors and program faculty in the research process inspires a paradigm shift regarding where research happens and who participates. The fostering of a reciprocal learning community bridges the course-based and field-based components of our program. The shift to practice-based research in the hands of practitioners eliminates institutional and methodological barriers to conducting research. Researching across the program while including all program personnel decentralizes research in our programs. Purposefully engaging field supervisors in PDSA cycles supports internal program alignment and enactments, but moreover, it provides an opportunity for field supervisors and program faculty to share findings and learn from one another. Often at institutions, it is the role of faculty to develop and assess programmatic goals, but through improvement science, we now equitably include field supervisors as well.

Finally, and perhaps most importantly, our transition to virtual coaching moves forward our commitments to equity and social justice. We understand and learn through the interconnections between the health and capacity of our university communities, our district partners, and the communities of families and students we serve in new, deeper ways.

Conclusion

Practical Implications and Future Directions

Our research and learning through our NIC is grounded in relationships. Improvement science work by this NIC was conducted collaboratively, in this case by members of seven institutions in a NIC focused on improving clinical field experiences. Our TPPs formed communities by developing understandings both within and across institutions. One unique feature of this NIC is the social responsibility we built towards one another. As an aside, when we moved our NIC into a remote space, we had built strong ties and friendships which support the ongoing work. We learn that working on these issues is not a one year endeavor, and the effort this community puts into understanding each other's contexts grows. Our developing a theory with improvement science that centers on social justice and equity bodes well for being in it together for the long haul. We find the PDSA inquiry cycle process accessible and helpful in refining their programs and affirming our journey at continuous improvement.

The implications of our collective learning are as follows. First, we have learned that systems that are relevant to our aim statement are not separate. Rather, there are iterative, recursive connections between them that are as important to study as the separate drivers. Future research will examine the intersections between the work we do within drivers to better understand these connections.

We have learned through writing this article that our data from PDSA cycles about the change to virtual instruction will be valuable to the field. Our next step is to analyze PDSA cycles to learn the features of and how we adapt those in the remote settings. We have developed three protocols for coaching in remote settings and will be evaluating their use and developing them over the course of the Spring of 2022.

Finally, NIC partners continue to explore upcoming iterative processes in the areas of expansion of equity focused coaching support in virtual environments, including coaching for equity and justice in 1) course-based settings; 2) centering equity and justice in virtual coaching cycles; 3) in mixed reality simulations, and 4) virtual equity coaching for graduates of justice oriented TPPs. Additionally, NIC partners continue to discuss and more deeply address ways to research how to further coach for culturally relevant, inclusive and sustaining pedagogy through interactions with all stakeholders beyond the TCs, including the FTs, and MTs. This expansion of social justice and equity focuses on coaching supports that continue to disrupt inequitable practices, power dynamics, and outcomes through continued use of improvement science frameworks.

Limitations

No limitations were identified, as this paper is a conceptual paper and not an empirical paper with a research design that would lead to limitations.

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DEVELOPING TEACHERS' RESILIENCE IN TODAY'S CLASSROOMS

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Abstract

Developing resilience in today's culture requires a different approach, as the current generation of students face more unique challenges. The pandemic emphasized an existing problem, and also acknowledged the fact that Texas is losing teachers. The authors present a case for developing resilience in students through the teachers in the field. Education, as a profession, is losing teachers at alarming rates and due to various reasons. This highlights the fact that teachers themselves might lack strength and resilience, and therefore are ill-equipped to pass this trait along to students. Educator preparation programs can make changes and incorporate different trainings within the curriculum prior to initial teacher certification, with the goal of building the skills needed for resilience in today's classrooms. Recruitment back into the field of teaching, changes to educator preparation programs' curriculum, teacher well-being, and conflict resolution skills are discussed within the article.

Keywords: *Teacher attrition, teacher well-being, educator preparation, resilience, reform*

Introduction

Current studies show that more teachers are now considering leaving the profession than ever before. The National Education Association (as cited in Walker, 2022) found that 55% of teachers are expected to leave the field before originally planned. This is up 18% from previous years. In addition to this alarming number, the survey also indicated that about 90% of teachers feel that pandemic-related stress and burnout are significant issues in today's schools. Teachers know that a major shift in policy is what it is going to take to make a difference in stress and burnout levels. Will (2021) noted that even though teachers are pondering leaving the field at higher rates than before COVID-19, there are areas in which school administrators could possibly help to improve in order to retain teachers. The main areas of concern for current teachers included heavier workloads due to a shortage of staffing positions, achieving state mandates (particularly test scores), a significant rise in school shootings, and social issues such as racism and vaccine mandates. Although administrators might not be able to solve each issue, there are ways to alleviate some of the pressures including hiring more support staff and offering quality professional development on transitional learning/teaching, mental health problems, and social issues.

While most of the newer studies focus on the aftermath of COVID-19 in education, there were already problems brewing in the teacher market prior to 2020. Hiring and retaining quality teachers is not a new issue. Garcia and Weiss (2019) offered statistics to show there was a significant decline in teachers completing an educator preparation program from 2008-2016. There were declines as drastic as 45% enrollment in traditional educator preparation programs, showing that before the pandemic ever hit, the

nation was facing a sharp decline in people choosing to teach. This line has, however, plateaued in more recent years. According to The American Association of Colleges for Teacher Education (AACTE, 2022), the majority of educator preparation programs (EPP) expressed minimal loss of enrollees post-COVID, despite the fact that most programs are continuing to face budget cuts and loss of staff. This is promising for the future of education and the certification of new teachers. However, this shows a disconnect between candidates entering programs with those in the field wanting to leave the profession. This proves that now the attention needs to be aimed at retaining quality teachers, possibly beginning with developing career durability and resiliency prior to initial certification. Could changes be implemented in an educator preparation program to help to increase strength and resilience in teachers when they enter the field?

Preparedness in a quality educator preparation program is essential for the success of new teachers. But that can even be delved into further, as studies have long supported that traditional programs tend to show better preparation, which translates into teachers who stay in the field for a longer period of time. A recent report by Horn, C. et al. (2021) found that teachers who were trained in for-profit alternative programs generally had lower retention rates than those who were certified through a university-based program. Given this evidence, along with the findings showing existing teachers are considering a career change, points to a need for reform within educator preparation programs. Reform should focus on recruitment efforts into university-based programs and early development of both content and pedagogical expertise, along with an advanced focus on career readiness specific for the candidate's teaching field to develop long-term resiliency. The AACTE (as cited in Texas Educator Preparation, 2022) has long reported that teachers who are better prepared are more likely to stay in the field, whereas a lack of preparation can contribute to burnout and higher levels of discouragement.

Recruiting for university-based programs may look very different now than it did a few years ago. Although recruiting for teachers is specific and requires specialized information delivery, there are some basic recruitment strategies that can be utilized, especially in regard to online recruitment efforts. For example, Energage (2021) suggests that employers use company branding, prioritize diversity and equity practices, treat candidates as customers, utilize social media, create succinct recruitment videos, and contact potential candidates. This applies to a general workplace, but could easily transfer directly to educator preparation programs and recruitment efforts directed at potential students. First of all, potential candidates need to know that research exists and generally supports future success as a teacher by route of traditional certification programs (Horn, C. et al, 2021), and further studies support that although recruitment may be more effective in high school-age students than adults (Bragg, 2007), there are many non-traditional students interested in pursuing education as their career, too.

There are plenty of stories in the news every week to discourage people from pursuing a career in education. This mindset will need to be taken into account when programs are developing their branding and recruitment plans. The intention should be to purposefully share knowledge, research, and facts, while also appealing to prospective candidates' individual interests and goals. University-based preparation programs can use this knowledge to brand themselves to attract students interested in teaching in Texas. Programs need to distinguish themselves and create a name that students associate with the program. Articulating and advertising what truly sets programs apart can help develop a reputation that is not only positive, but sustainable. More traditional recruiting efforts such as high school visits, community events, and contacting students through phone and technology can be conducted by faculty or staff members within the programs to develop relationships and share information regarding the career of education. Additionally, there are programs now in place to specifically recruit people into teaching. In Texas, a grant program developed through the Texas Education Agency (TEA), called Grow Your Own (GYO)

has the slogan, “Your future teachers are in your high school seats” and aims to recruit and certify future teachers through high school dual credit courses, transitioning aides and substitutes, and traditional-based programs. GYO currently is conducting research to track their success and effectiveness, but the goal is to bring a more diverse pool of candidates into teaching, with a strong focus on rural and small school districts in the state. Knowledge is power. Bringing new educators into the field who are both dedicated and resilient, begins with a strong preparation program with knowledgeable staff who can develop not only college relationships, but career-long relationships as a support.

Texas Education Agency (TEA, 2017) laid out a strategic plan that addressed teacher recruitment and retention. Among the main actions to meet these goals were enhanced and more rigorous teacher preparation and extended training opportunities to teachers already in the field. The plan, with the years 2017-2021 specifically addressed, noted that teachers are the best resource to help students be successful, and therefore needed thorough training. The plan’s actions to accomplish this goal included more rigorous and increased testing requirements for initial certification, quality clinical residency experiences, enhanced teacher appraisal methods, and a guarantee to uphold career integrity by holding teachers accountable for misconduct. The particular goal of increasing rigor and testing requirements for certification has resulted in programs needing to focus on exam scores and embed testing components throughout courses, much like public school teachers are forced to do to meet standards on the Texas state assessment. Unfortunately, this diminishes the overall goal of preparation programs and takes away from the curricular excellence needed to develop teachers who are ready to take on the profession, and be prepared to face a classroom full of eager youth. Although these goals support the idea that better preparation leads to more success in the classroom and increased student performance, the studies show clearly that Texas is still falling short in recruiting and retaining teachers (Garcia & Weiss, 2019; Walker, 2022). Recently, Texas’ Governor Greg Abbott issued a letter to the Texas Education Agency to designate a task force to investigate and possibly make changes, including adjustments to the teacher certification process (Office of the Texas Governor, 2022). Perhaps this will result in needed changes, especially in regards to initial certification, which will allow preparation programs to begin drawing candidates back in, offering exceptional curriculums, and placing well-prepared, enthusiastic teachers back in Texas public schools.

Keeping in mind the reality of teacher attrition, along with the necessity of effective recruitment, the focus could shift to the actual preparation programs once candidates are admitted. The real catalyst for change in future teachers’ resilience can begin in the programs, before initial certification ever occurs. Administrative input can help set this stage through careful consideration of course requirements and alignment within a degree plan, curricular alignment within the program, curricular changes and enhancements, and earlier field placements to better prepare future teachers to enter the profession. Enhancements to the curriculum within course offerings can be accomplished in alignment with the program learning outcomes, course-specific learning outcomes, and state standards that must be adhered to, but instructors should have the prerogative to supplement the minimum requirements as they see best meets candidates’ individual needs. Some incorporations that would be beneficial include specific training in the areas of developing a healthy work/life balance, effective conflict resolution skills, and mental health of both teachers and students.

A simple search on the work/life balance of teachers provides underwhelming results in both quantity and quality, and the studies that do exist are largely out of country. However, a study conducted by Education Support (2022) presented alarming data showing that over 70% of teachers have trouble separating their work from their home lives. This imbalance can cause issues with teachers’ health, well-

being, and personal lives. The study presented several ideas for teachers to reestablish this balance such as learning to prioritize commitments, learning to say no, taking weekends and holidays off, and building a bank of resources through the years to cut down on time needed for planning and paperwork. EPP's could implement instruction early into the curriculum to help teachers develop skills needed to maintain a positive balance between school and home.

Effectively managing large groups of students and handling issues within the classroom are an inherent part of teaching. Professionals have noted that student discipline issues and declining parental support contribute to teachers exiting the profession (Common Good, 2004). There are many aspects to handling conflicts in all workplaces, but schools hold even more facets, as teachers have to be able to work with students, parents, colleagues, and administration. This places a greater strain on teachers than simply knowing their subject area content. A recent study by Valente and Lorencio (2019) presented the idea that developing teachers' emotional intelligence (EI) could help teachers better navigate students' behavioral issues in the classroom. They noted a strong correlation between higher EI's in teachers and their ability and willingness to communicate with students regarding their behaviors, thus having a more positive effect. Interestingly, the opposite occurred in teachers with lower EI's conflict resolution skills, and those teachers were more likely to make aggressive statements, be inflexible, and escalate tensions. Given the increase in student and parent conflicts in schools, this study supported the notion that pre-service teachers should have extensive training in developing and enhancing their emotional intelligence, relationship building, and conflict resolution prior to entering the profession. Although these skills will not eliminate the issues that arise in the classrooms, they can help to better prepare teachers to effectively handle situations with all parties involved. If teachers are better prepared to handle issues, perhaps this will help to alleviate some of the burnout that occurs due to conflicts.

In addition to EI, teachers can develop resiliency by addressing mental wellness. It is common for educator preparation programs' curriculum to target academic content and instructional pedagogy and fail to address mental wellness and overall well-being of future teachers. When these social aspects of a teacher's education are overlooked teachers can be easily overwhelmed by the cognitive, emotional, and social demands placed on them every day. Jennings (2015) explains how the practice of mindfulness trains one's mind to be cognizant of internal and external emotions and experiences in order to manage our emotions. Classroom teachers, empowered by managing their emotions, have the wherewithal to minimize conflict, strengthen prosocial behaviors, and increase resiliency. As teachers demonstrate mindfulness - staying in the present moment while practicing non-judgmental awareness, students learn how to do the same. Cultivating students' ability to exercise mindfulness fosters a classroom environment of calmness, while still experiencing a climate of active learning. Students' self-efficacy and confidence flourish when they feel emotionally safe, supported and encouraged by their teacher; resulting in increased resilience. Students become the benefactors of resiliency as teachers exhibit and promote resilient behaviors. Learning to be resilient may transform the trajectory of teachers' and students' lives.

As Texas begins to acknowledge teacher attrition being a significant issue (Office of the Texas Governor- Greg Abbott), perhaps the focus can shift away from a test-focused culture that has placed an overemphasis on what teachers can demonstrate solely academically for initial certification. Many skills can be incorporated into the curriculum within EPP's to better prepare teachers for the profession. This preparedness will help to develop resilience within teachers, which will hopefully translate into retaining good teachers. When students have the skills to recover from setbacks, adjust to life's hardships, and adapt to trauma and tragedy they become resilient. Clearly, being resilient is far more than simply coping

or pushing through tough times. Resiliency in school-age children increases the likelihood they will attempt new experiences in the classroom.

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RECORDING TEACHERS' VOICES: PRESERVICE TEACHERS' USE OF INTERVIEW AS A QUALITATIVE RESEARCH METHOD

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Abstract

Undergraduate research is beneficial to students because it gives opportunities to dialog with experts and deepen understanding of course content. In this article, the author presented the design and implementation of a research-integrated reading course. It included a qualitative research (QR) project, using interview as a data collection method. It was intended that preservice teachers (PSTs) enrolled in the course would interview their cooperating teachers (CTs) in their field observation classrooms. The research question asked was: What are the reading assessment and remediation practices of a school teacher? PSTs completed and earned certificates of the Social and Behavioral Researchers' CITI training modules, formulated interview questions, gathered and analyzed academic literature on reading assessments, performed a mock-interview in class, and transcribed interview recording. Students who acquired consent from their CTs conducted and transcribed interviews and wrote a research report while students who did not acquire consent wrote a brief literature review as an alternative. The author presented the challenges and success of integrating qualitative research in a reading education course. Receiving IRB approval and gaining prospective participants' consent played a crucial role in the effectivity of a research-integrated education course.

Introduction

The National Council on Undergraduate Research emphasized that undergraduate students from all academic disciplines should experience research, both as a requirement for completion or as a means to engage students in their courses (Wuetherick, Willison, & Shanahan, 2018). Conducting research is beneficial to students because it affords them the opportunities to dialog with experts in the profession and deepen their understanding of course content as they witness how the concepts and skills learned in a course play out in the real, day-to-day world. In doing this, undergraduate students are afforded personal growth and intellectual development, particularly in the area of critical thinking, information literacy, and scholarly writing (Slobodzian & Pancsofar, 2014; Szecsi et al, 2019). However, in the field of teacher preparation, engagement in research and the development of researcher dispositions are not common (Dobozy, 2011; Manak & Young, 2014). In fact, there is a perception among students and teacher educators reported by Baker (2022) that PSTs do not need to develop research skills. It has become evident that the connection between research and the teaching profession is undervalued (West & Meier, 2019).

In my institution, Texas A&M University-Kingsville, undergraduate research is valued as a high-impact practice in promoting active learning environments that help students develop inquiry and critical thinking skills within the classroom (ICARE Grant, 2022). The implementation of undergraduate research would increase contact between students and faculty, both inside and outside the classroom, which in turn may enhance students' development and learning outcomes. In the 2019 spring semester, a call for proposals was disseminated to redesign undergraduate courses to become research-integrated. Faculty members whose proposals were chosen received a stipend, and students were supported by having access

to a research tutor and getting office materials for their research activities. Having completed a course redesign in 2018, I learned the value of engaging PSTs with research (Modesto, Cooke, & Desiderio, 2021) and submitted another proposal. With my background in qualitative research, I wanted to familiarize my students with this approach and provide experience in collecting interview data from their CTs. As Bray and Miller (2014) stated, “preservice teachers can learn extensively from particular teachers who are still excited about teaching and who themselves are still learning from current research and best practice.” (Bray & Miller, 2014, p. 5). Towards the end of 2019 spring semester, my course redesign proposal was approved. In this article, I explained the course redesign and its implementation in 2019 fall semester. At the end, I reflected on the success and challenges encountered.

Designing and Implementing the Research-Integrated Course

To engage PSTs in a complete QR process, I redesigned a senior-level course entitled, Classroom Reading Assessment and Remediation. The PSTs attended face-to-face classes and completed 80 hours of classroom observation in elementary schools in South Texas. To apply the research concepts and skills the PSTs were learning, I planned that PSTs interview their CTs about their instructional and assessment practices and produce a research report. I chose interview because it has become the main data collection procedure closely associated with QR, and previous research considered it as a “reflective learning opportunity” (Bray & Miller, 2014, p. 1). Moreover, interviews can be used to collect “snapshots of teacher’s careers and extract words of wisdom to support young teachers” (Peters, Robinson, & Ellis, 2014, p. 14). I considered the act of recording classroom teachers’ voices would be a way for my students to construct knowledge outside of our college classroom and to see the relationships between reading assessment concepts learned in classroom and the actual work of an elementary reading teacher.

Being that the PSTs were already placed in a classroom to observe, interviewing the CT would be a logical addition to enrich the PSTs’ field experience. Additionally, PSTs’ purposeful engagement with CTs would address criticism documented in the literature that teacher educators do not have recency of experience in teaching in PK-12 schools (Williams & Sembiente, 2022). In interviewing CTs, my students would be able to document the work of a classroom teacher and connect their findings with course content.

To establish PSTs’ knowledge on QR, I taught the following: characteristics of qualitative research, applications of qualitative research on classroom settings, interview as a data collection method, doing manual transcriptions, inductive analysis of interview transcripts, using electronic database to search for academic literature, and the use of APA conventions in writing a report. I taught these topics within five weeks. To give opportunity to practice interviewing, PSTs conducted an interview in class, with their peers as participants, regarding their field observation experiences. PSTs used the voice memo application in their smartphones to record the interview and later manually transcribed the recording. They submitted the transcriptions and reflections about this experience to me. Formative assessments were done via classroom and online discussions, reflections, and individualized progress monitoring.

Because this was the first time PSTs were exposed to QR, sample articles were read and examined in class. I used one of my own published QR as a model. Later, PSTs searched for articles they could use for their study, using the university’s electronic database. Table 1 below was used as a guide to understand and discuss QR articles.

Table 1*Questions to Consider in Understanding QR Articles*

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- | | |
|---|--|
| 1. Purpose of the Study: | What was the purpose of the study? Why is the study important according to the authors? |
| 2. Participants: | Who was the author? How was he/she related to the purpose, participants, and study site? Who were the participants (number and characteristics), and how were they selected? |
| 3. Context: | Where did the study take place? Describe important characteristics. |
| 4. Study Procedures: | What were the main steps in the study? Describe or diagram in a flow chart any important relationships among the steps. |
| 5. Data: | What data (field notes, interview transcripts) was collected, and what was the role of the researchers in the process? |
| 6. Analysis: | What form of data analysis was used, and what was it designed to reveal? |
| 7. Results: | What did the author identify as primary results? |
| 8. Conclusions: | What did the authors assert? How did the events and experiences of the entire study contribute to the conclusion? |
| 9. What interesting facts/ideas did you learn from reading the article? Include what was of value to you, e.g., references, instruments, or personal inspiration. | |
-

In addition to the existing Student Learning Outcomes (SLOs) for this course pertaining to reading, I added the following SLOs relevant to research: (a) gain an understanding of the characteristics and uses of qualitative research in educational settings, (b) complete the student level CITI training requirements for investigators primarily with social/behavioral research with human subjects, (c) develop skills in interviewing as a qualitative data collection method, and (d) apply APA conventions such as the use of in-text citations, references and formatting. The table below shows the interview guide, with descriptive questions (Bevan, 2014), formulated by students collaboratively, with my guidance.

Table 2*Interview Guide to be Used for Cooperating Teachers*

-
- A. Questions about the Participant
1. Could you please tell me what grade level you are teaching? How many years have you taught this grade level?
 2. How do you feel about teaching this grade level?
 3. How are your students like?
 4. Could you describe how your typical day as a reading teacher looks like?
- B. Questions about Instruction
1. What are your go-to reading instructional practices?
 2. Is there a particular teaching strategy or instructional practice that you find most effective?
 3. Is there a particular teaching strategy or instructional practice that you find to be most ineffective?
 4. Do you determine the reading levels of your students? If yes, how and when? And if not, why?
 5. Do you group students for instruction? If yes, how do you group students with varying reading levels?

6. How do you differentiate your instruction to target the different reading levels of your students?
7. What accommodations do you implement for ELs and special education students?

C. Questions about Assessment

1. What assessments do you do to determine your students’ reading progress?
2. How do you organize or document your data from the assessment?
3. How involved is your district when it comes to assessing the students?

D. Questions about Remediation

1. Could you please tell me about your remediation processes?
2. How do you address the needs of your struggling readers?
3. Are there remediation practices that you have done that you think is more effective than others?

The research activities and qualitative research paper comprised 20% of the final grade. Included in these instructional activities was the completion of the Social and Behavioral Researchers’ CITI training modules which needed to be submitted for the blanket IRB protocol application. All students completed this task, and I submitted the IRB application in September 2019. Presented below is the rubric I designed for grading the research report:

Table 3
Rubric for Grading the Research Report

	Excellent 4 point	Good 3 points	Fair 2 points	Poor 1 point	Comments
1. Overall Quality					
2. Writing Mechanics (e.g., active voice; sentence structure, smooth flow of ideas from one section to the next, correct spelling, capitalization, and punctuation)					
3. Overall adherence to APA style and standards (in-text citations and reference list)					
4. Introduction (Did you provide a clear introduction about reading instruction, assessment and remediation? Did you review at least three articles that talk about your topic? Overall, does the reader fully understand how the literature informed the author’s research and vice versa? Did you state the research question clearly?)					
5. Context of the Study					

(Did you adequately explain why you did this study, the situation that prompted the research?)					
6. Methodology and Analysis (Did you clearly explain how you collected data--when, where, how many times, how much? Did you provide a discussion about how you analyzed data and the rationale for your decisions?)					
7. Results (Did you explain, with support, what you found out, i.e., the answer to your research question, based on your data analysis?)					
8. Conclusion (Did you revisit the literature you referred to in your introduction and then discuss how the study's findings complement, add to, and/or contradict it?)					

Success and Challenges of Research Integration

Success

Qualitative research is an appropriate inclusion in an education course because of its descriptive nature (Creswell, 2009). It was intended that data collection and analysis would allow students, as investigators, to gain an understanding of the assessment and remediation practices of their cooperating teachers and the reasons behind these practices. Four out of 21 students acquired consent from their CTs and submitted research reports. (See Appendix for a sample interview transcription.) Those who did not interview wrote a literature review about current reading instruction and assessment practices. Thus, four basic qualitative research papers were produced and 16 students wrote a literature review. One student stopped attending the class.

One of the goals of my institution in calling for a course redesign was to help increase student engagement and critical thinking skills through experiential learning initiatives. This goal was achieved as evidenced by the following: (a) Twenty students successfully conducted a mock, recorded interview in class and submitted their transcriptions, (b) They received CITI training certificates which were included in the IRB application, and (c) They submitted discussion board requirements regarding research articles they searched using the university's electronic database. Overall, students gained basic knowledge and skills about gathering research literature, were given opportunities to read and analyze the literature, and understood interviewing as a qualitative research data collection method. The table below provided examples of students' reflections in conducting research.

Table 4*Examples of Student Reflections*

Student 1:

After interviewing Mrs. T, I learned that scaffolding students' learning by using different strategies such as graphic organizers or asking questions can be excellent examples of how to aid students' learning. Mrs. T was my CT, and I saw her use different strategies to support her student's learning. Using graphic organizers were a daily thing in her class, and I had some idea as to why, but after conducting this research, I see why they are so important for students.

Student 2:

Conducting the interview enabled me to learn in-depth how a reading teacher thoroughly plans for her students' reading enrichment. I aspire to take on some strategies from Mrs. C to improve students' reading comprehension and fluency. Teachers are encouraged to consistently find new strategies that will suit a student's learning style. I had the privilege of working closely with Mrs. C, and as she was answering my questions, I was recalling the strategies that she was discussing in the interview. I was able to help in her classroom by working with a small group of students and going over different reading strategies that best suited the students' learning styles. Something I will take from this research and my field observation hours is the commitment that a reading teacher will be entrusted in, to aid all students in every way possible through a plethora of resources.

Student 3:

The learning that I took away from this experience is completing a qualitative research paper, interviewing an elementary reading teacher, and transcribing an interview. I learned what researchers have to say about how to teach, assess, and give remediation through the literature review. I learned from an elementary reading teacher how to teach, assess, and remediate reading in a third-grade classroom. This experience has educated me on what reading instruction, assessments, and remediation practices to use and teach in my elementary classroom. My new knowledge has helped me better understand how I can help my elementary students become good readers, develop comprehension, fluency, and understand what the text means in their reading level.

The PSTs' reflections illustrated that integrating research in an education course allowed for meaningful connections between course content and real-world experiences. This is supported in the literature on undergraduate research. According to Devore and Munk (2015), reflection on what was learned throughout the research experience reflects best practices in teacher preparation. The learnings by PSTs transcended the current focus and pressures of teacher licensure/certification (Baker 2022). They realized the required commitment to the profession, the reasons behind using a specific instructional strategy, and the amount of planning needed to ensure students' literacy development—all of which occur outside the discussions for licensure test preparation.

Challenges

It was a challenge to implement a research-integrated course within a short period of time. I submitted the IRB protocol application for this course in September 2019 and received approval only on

December 2, 2019. This put tremendous pressure on me and my students. Because of the delay, it was challenging for the PSTs to gain consent from their cooperating teachers to participate in the interviews. The cooperating teachers were busy wrapping up the semester and did not want added tasks. Only four out of 19 students were able to interview and write a research report. Those who did not interview completed an alternative project, a brief literature review on reading assessment and remediation. This situation was disappointing to the PSTs. After being instructed on how to interview, transcribe and analyze data, majority of them were not able to apply what they have learned.

Another challenge was gaining students' buy-in for the research activities. Not everyone was on board and enthusiastic about carrying out the project. To illustrate, one student wrote in the course evaluation: "She (the instructor) insists on making this a research-based course; however, I don't see how that will benefit us in any way as classroom teachers." This sentiment is supported by the literature. Previous research has documented that PSTs dislike research and do not see the value or connection between research and the teaching profession (West & Meier, 2019). To add, there is an existing perception by PSTs and teacher educators that teacher candidates do not need research skills (Baker, 2022). This situation reflects the current focus of teacher preparation on getting PSTs certified and the lack of emphasis on developing critical thinkers and producing students who knowledge-consumers rather than knowledge-producers (Kalsoom, Qureshi, & Imran, 2021)

Additionally, I felt and saw students' anxiety and lack of confidence in carrying out the research activities as they have never done research of this nature in their college careers. I had to become emphatic and intentional in explaining the benefits of doing research as PSTs, but I was uncertain if the PSTs genuinely appreciated the process, especially that the majority did not get their CT's consent to participate.

Recommendations

Based on my experience of redesigning an education course to be research-integrated, I recommend that application for an IRB protocol begin before the semester starts. The students' CITI training certificates can be later added to the application after approval is obtained. This will ensure that students will have enough time to work with prospective research participants in gaining consent. It is also important for teacher educators to be open to students' feedback during the semester, especially regarding their doubts in the value of research in teacher preparation to ensure that students are meaningfully engaged in the research process.

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Appendix

Below is the interview transcript of a PST with her CT.

PST: Hello, Mrs. C. Thank you for taking the time to be with me today and for agreeing to be a participant of this study. I shall ask you several questions about your experiences and practices in teaching and assessing reading. Please answer the questions honestly. If there is any question you do not wish to answer or a question you would like me to explain, please let me know. Do you have any questions before we begin? If none, let us start.

PST: Could you please tell me what grade level you are currently teaching? How many years have you taught this level?

CT: I'm currently teaching fourth-grade, and this is my second year teaching fourth-grade.

PST: How do you feel about teaching this grade? How are your students like?

CT: I actually like it. I was in fifth-grade before, but fourth-grade students seem to be more interested in the learning and more naïve, more willing to do their work and less...rebellious than the fifth-graders that I had previously, so I really enjoy working with them.

PST: Could you describe how your typical day as a reading teacher looks like?

CT: On Mondays, I introduced my objective, the vocabulary, the story of the week, preview the story, teach the skill that we are targeting for the week, and if we have a chance, we start with the shared reading. On Tuesday, Wednesday and Thursday, we start off with reviewing the objective, reviewing the skill, reviewing the I do and we do, doing the you do for the skill, and then finish up the shared reading as we're done with that, the students go into groups and they do their class work. It's either a vocabulary activity, an activity regarding the skill of the week, comprehension skills, independent reading, and then on Fridays we do the assessments.

PST: How do you teach reading?

CT: I first have to model the objective, the skill that we are teaching, I use videos, songs, games. After I model, we do the activity together which is called the we do. We do it a couple days, depending on how the students are grasping the concept, and then they are off on their own doing the you do which is their independent activity for the skill through the week.

PST: What are your go-to reading instructional practices?

CT: This year we got the Pearson anthology. We have a lot of resources such as the education galaxy, Istation, AR, Cor2 epic where the students can read online books. Then we have resources here in hand that we can use with them as games from teachers' pay teachers, activities from task cards.

PST: Is there a particular teaching strategy or instructional practice that you find most effective?

CT: I've noticed that when I teach in small groups, it is easier for the students to grasp the concept because I'm more focused on them. and teaching it two three times to them will work more than just teaching it once or reviewing it.

PST: Is there a particular teaching strategy or instructional practice that you find to be most ineffective?

CT: I think when you just do direct instruction and you don't involve the students, that's when they get lost or bored and they don't really retain the information. They have to be involved--participate, collaborate with others work in teams, reteach, teaching others in paired group--that's when the learning takes place.

PST: Do you determine the reading levels of your students? If yes, how and when? And if not, why?

CT: Yes, we determine it by administering the IRI using the Fountas and Pinnell kit that is provided by the district, and we do it every six weeks.

PST: Do you group students for instruction? If yes, how do you group students with varying reading levels?

CT: I have different reading levels, different groups in the class, so I have four different team. For example, learning team A are my students that are below level like the 3.2 P; team B are my students that are maybe closer to what the reading goal should be; team C would be my students are on-reading level, and team D are above, not just my GT students but students that could handle more challenging assignments.

PST: How do you differentiate your instruction to target the different reading levels of your students?

CT: We do the differentiate by using guided reading groups, by providing different activities to the learning teams, depending on what learning team the students are in. I give them different assignments for the same skill either more challenging or an assignment that can be scaffolded to my below-level readers so that they are able to succeed in that objective even though they do it in different ways.

PST: What accommodations do you implement for ELs and special education students?

CT: Providing extra time, graphic organizers, visuals, vocabulary words, scaffolding for them so that they don't feel stressed out and don't feel like they can't succeed in class.

PST: What are the assessments you do to determine your students' reading development or progress?

CT: We do the weekly assessments from the Pearson website that we get online. We do that for vocabulary and comprehension. We also do a skill assessment, so we can know if they comprehended the skill that was taught. And then from there, I can see what students retained the information and what students need the extra help.

PST: How do you organize or document your data from the assessment for each student?

CT: I usually do it on Google drive, using Google sheets and from there, I have the reading level, Istation assessment monthly, Lexile levels, and CBA or benchmark data. And from there I can see where is it that the students are improving or a difficult time so that I can go ahead target those students and see where the problem is.

PST: How involved is your district when it comes to assessing the students?

CT: This year, I was involved in the PLC which is a committee that gets together. It's one reading teacher per campus for each grade level...we don't create the CBA or the benchmark assessment, but we were part of the committee where we see the assessment and we see where the students had weaknesses last year, on that same assessment so that we can fix the problem. It could be maybe an instructional problem not if a lot of students missed a question, for example so from there we can use that data to come and make changes in the classroom.

PST: Could you please tell me about your remediation processes?

CT: I go back to reteaching, regrouping. Last year we had power hour, and from there we formed different groups. I do learning teams by levels, and from there we do different activities with the teams depending on how they are approaching the skill and where is it that they are having difficulties. When I do the guided reading, I also have them by reading level and from there I can ask them more detailed questions, or I can try and have them develop more on their answers when I am asking them a question if they don't comprehend what the question is asking them. So there's different ways to help them not only with reading comprehension but with fluency as well.

PST: For students who continue to struggle, what methods do you use try and fix the issue?

CT: Right now what I'm doing is they're getting the data from CBA. They have a sheet that they can go on a daily basis. For example, if they are having trouble with inferencing, summarizing, or main idea, they can always go back and education galaxy has lessons by skills, so they go and search up the skill that they are having trouble with, and they can do a lesson on education galaxy based on what they are lacking or missing on the CBA. I also have task cards per objective which they can use during power hour, during extra instructional time, or any time that they need where they can target the skill that they are having difficulty with, if I'm not there to work with them one-on-one if I'm working with a different team.

PST: Are there reoccurring remediation that you have done that you think is more effective than others?

CT: Right now what I'm using is a lot of graphic organizer, I have anchor charts. Students have their notes in their reading interactive journals, but I'm also providing them with a small visual as I'm doing the small group tutoring where I can always go back and reteach that before we do an assignment or activity on that specific skill that I'm covering or trying to help the students target that skill by using those graphic organizer... their like mini anchor charts that I keep in a binder... just flip through them as we review. That's something that I've been using this year and hopefully it becomes a little more effective.

PST: Thank you for answering my questions. The recorded interview will be transcribed, and I will show it to you so that you may read it. You can tell me if the transcription is accurate. Again, I appreciate your time.

ENGAGING WITH VIDEO FEEDBACK AS HIGH LEVERAGE PRACTICE

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Abstract

This paper focused on the use of video feedback as a part of the core high leverage practices, which are the acts central to teaching, to impact learning outcomes across virtual and face-to-face instructional environments. The need to provide timely, high-quality feedback to students is greater than ever in online learning. Traditional dysfunctional or autopsy feedback, which is provided after an assignment is finished, often leaves students wondering how well they are doing throughout the process of learning. Often, this feedback is not even read by our students since it offers no formative value. A review of the quality factors essential for the use of impactful feedback is followed by a discussion of the practical uses for implementation in the classroom.

Keywords: *Video feedback, formative feedback, high-leverage practices*

Introduction

As we collectively move into the next era of teaching and learning, educators move forward understanding the ways in which our traditional teaching failed our students and with new knowledge of the ways we can reach our students across distance. The disruption of our education system due to the COVID-19 pandemic moved our traditional teaching practices to virtual teaching overnight. As we emerge with new understandings of inequity and justice, we must continue to do better for our students. This paper focused on the use of video feedback as a part of the core high leverage practices, which are the acts central to teaching, to impact learning outcomes across virtual and face-to-face instructional environments. A review of the quality factors essential for the use of impactful feedback is followed by a discussion of the practical uses for implementation in the classroom.

The need to provide timely, high-quality feedback to students is greater than ever in online learning. Traditional dysfunctional or autopsy feedback, which is provided after an assignment is finished, often leaves students wondering how well they are doing throughout the process of learning. Often, this feedback is not even read by our students since it offers no formative value. “Teacher feedback drives the pedagogical process in which feedback interaction provides the framework for directing students’ requirements and intended learning outcomes and setting learning climate and social emotional support” (Istenič, 2021, p. 113). Feedback is a driving factor of student success. In its best form it is developmental; it is relevant and useful, and it creates a classroom climate that values engagement in the process of knowledge creation.

Alternatives to text feedback include audio feedback, screen recording with audio, video only feedback and screen casting with video embedded. In this paper, the terms screencasting and video feedback will be used interchangeably to refer to the use of screen recording with an embedded video. The mode of media used to provide feedback mediates communication with students, which can impact

the internalization of comments shared. Borup (2015) found that “instructors using video provided more general and specific praise and more general correction than instructors using text and instructors using text provided more specific corrections” (p. 172). The formative value of video versus text allows instructors to deliver feedback that is more positive and personal. The conversational nature of video feedback contains more praise and affective support which builds relationships with students (Borup, 2015).

According to Borup (2015), there are three quality elements for video feedback. The first is the content provided. Video feedback provides cues that students naturally interpret, like body language and tone of voice. Second is the timing and efficiency of feedback. In a developmental process, the frequency and timing of feedback influences its usefulness and application. Third is the delivery and affective support that video comments provide. With the addition of cues, video feedback can prevent misinterpretation and confusion. Further, its specific and personal nature builds a relationship and trust between the professor and the student. Personalized communication can transform education for students who have historically underserved and undervalued classrooms.

The use of video feedback to engage our students throughout the learning process develops a dynamic space for collaboration before evaluation. As empowered learners, they feed “visible, valued, and in control of their learning” (Teaching Works, 2019).

Good feedback is specific, focused, and not overwhelming in scope, and supports students’ positive perceptions of their own capability. Giving skillful feedback requires the teacher to make strategic choices about the frequency, method, and content of feedback and to communicate in ways that are understandable by students. (Teaching Works 2019)

In video comments, students see and hear our meaning. The value of providing high-quality feedback lies within the students’ interpretation of our comments, which can be lost in text-based “autopsy” feedback.

Feedback supports learning by focusing students’ attention on specific aspects of their work and supporting their ongoing learning. Valuable feedback is specific, focused, and not overwhelming in scope, and supports students’ positive perceptions of their own capability. “Personalized learning requiring feedback and different points of the learning process that utilize a range of feedback functions and forms and, most of all, employs contextualization and a situated approach” (Istenič, 2021, p113). Giving skillful feedback requires the teacher to make strategic choices about the frequency, method, and content of feedback and to communicate in ways that are understandable by students. When feedback is situated as a part of the learning process, it provides students with the space to internalize and act upon their new understandings.

Literature

Meaning is made through context, interactions, and relationships (Freire, 1979). Therefore, the purpose of feedback should extend beyond just providing comments for students and strive to have a positive impact on student growth (Mahoney et al., 2019). In other words, feedback should advance students’ skills and critical thinking. It should be a “process that involves the student and is forward looking and action-oriented” (Mahoney et al., 2019, p177). Affirming students’ capacity and supporting their learning not only helps them improve their work or thinking in a particular moment but supports ownership of their learning and their identity as knowledge creators. The development of a positive

academic identity is fostered through mutual understanding of the way we interpret our situational context. The development of self-efficacy is dependent upon successful navigation of this context.

Building relationships and use of students' names are a form of justice (Mahoney et al., 2019). This type of personalized action creates a sense that students are valued as individuals. Video feedback improves social presence and strengthens relationships (Ryan, 2021). Students appreciate clarity and ease of understanding as a key strategy. Equitable provision of feedback requires that teachers understand and intentionally work against normalized patterns by which Black, Latinx and Native American children receive significantly less feedback than their peers. Often the feedback is perceived as negative, based on teachers' misunderstandings of student's thinking, or is non-academic. According to Ryan et al. (2019), "effective feedback involves learners receiving and making sense of the information about their performance and using that information to enhance their future performance" (p. 1509). The measure of feedback lies less in what the teacher says than in the way a student interprets the feedback. Screencasting involves more use of names and more relationship building comments and is more like a conversation because it is more elaborate (Borup, 2015). The more natural and conversational delivery of video feedback adds a humanistic facet that does not exist in text-based comments.

Video feedback can bolster socioemotional outcomes because of the rich conversational cues that are not available in text. (Ryan, 2021). According to Mahoney et al. (2019), high value feedback requires us to take into account the cognitive, structural, and social affective dimensions required for feedback dialogue ... the highly personalized nature of the video feedback allows markers to more overtly address students as individuals, transforming feedback into a communication which can help students feel recognized and valued rather than simply a name on a list (p.163).

In their study, Borup (2015), found that of the 22 students, 16 found that the visual and vocal cues in the video reduced the likelihood of misunderstanding" (p. 177). Video feedback provided students with more encouragement and less focus on simply correcting their mistakes. Videos allow nuances of plain language to come through.

Feedback as a high leverage practice

High leverage practices are considered the core of teaching and learning across all educational contexts (Loewenburger Ball & Forzani, 2009; McDonald et al., 2013). As a system, HLPs (High Leverage Practices) focus on the funds of knowledge that students bring to our classrooms, and when a student is recognized for their own individual experiences as a valued member of the learning environment, they are more likely to be successful. The practice of providing feedback helps students to see their strengths and focus on areas for improvement and it enables teachers to partner with and empower learners (Teaching Works, 2019). Student centered feedback is dependent upon the student's ability to make sense of the feedback with the opportunity to use the information to improve their outcome. Skillful feedback, whether offered publicly or privately, positions learners as visible, valued, and in control of their learning. It demonstrates respect for students' ideas and work by taking them seriously (Teaching Works 2019).

Classroom feedback is often focused on the learning outcome rather than the development of critical thinking. Feedback that is focused on corrective measures can be useful but can have a detrimental effect if students find it discouraging (Baadte 2015). Text feedback is not always helpful in moving a

student's thinking forward. Since video feedback focuses on the process and can be accessed repeatedly, it encourages proficiency in the process.

The value of video feedback lies within its content. Video feedback enhances teacher candidates' abilities to perceive analyze and interpret teaching and learning (Baadte 2015). Students are found to utilize video feedback better; they are more engaged and often return to the feedback throughout the revision. (Mahoney et al. 2019). Ryan & Henderson (2019) posit that face-to-face feedback is often arduous and time consuming. When a teacher has a heavy load of students, timing may not allow for the affordance of face-to-face meetings. This is reflected in the use of stock feedback for large classes. Rubrics can provide specific feedback, but the personalization is lost to the more generic feedback in a rubric. According to Ryan & Henderson (2019) video feedback is perceived to be more detailed and useful. When asked to rate the usability, detailed content, and personalization of video feedback against text feedback, 75% of students agree that this feedback maintains those qualities.

A key element that video feedback provides is in the delivery. Text based feedback is focused on corrections, which if delivered as the final and only feedback, is not useful for development (Borup 2015). Corrective feedback also lacks general and specific praise which can create a sense of success and highlight growth. When using text-based feedback it is also difficult to communicate difficult and complicated concepts or processes (Borup 2015; Mahoney et al. 2019). Feedback that addresses this type of information can be conveyed more easily and directly with screen casting. Digitally recorded feedback bridges the gap between text-based and face to face feedback by providing a personalized detailed assessment without the labor of face-to-face meetings. Borup (2015) found that in comparison with text-based feedback, video feedback has higher word counts, more supportive comments, and non-verbal cues that prevent misinterpretation. Mahoney et al., (2019) note that video feedback has greater detail, contains double or more words, elaborates on points with specific detail and offers more positive aspects for students' work. According to Mahoney et al., (2019) video feedback "fundamentally shifts the focus of the feedback from surface level mechanics of writing to the more substantive, global aspects of student performance." Personalized feedback is not only praise or criticism but instead is specific to the task and intended to improve the students' outcome. Feedback should detail action steps for students.

The use of video feedback for online and face-to-face learning

Context

The application of video feedback proved to be a useful tool. In the spring 2020 semester, face-to-face learning moved to digital learning and educators across the world sought to make connections with students through online meeting platforms. While text feedback was still possible, the use of video feedback created connections with students. Connection at a time when isolation was forced upon the globe to reduce the spread of COVID-19 was an asset in the classroom. The following section will describe two ways that screencasting applications were a high leverage practice to improve self-efficacy when a field-based experience course was moved to a virtual setting.

Directions for assignments

In a face-to-face classroom we can interact with our students. As a best practice, we offer directions in both written and verbal formats, and we allow our students to ask questions necessary to accomplish the course tasks. With this option gone in the spring of 2020, students needed alternatives to

ensure they understood assignments. Using screencasting, directions were offered in a text format, but also supplemented with a screencast video. The video allowed the instructor to show the assignment and review the criteria, but also to offer a tour of resources including the how to navigate the learning management system, how to click on links to find materials and how to use shortcuts to make the use of technology easier. This allowed the students to focus on the task, not trying to figure out how to start. Further, by recording and sharing a screencast video, students processed the content at their own pace. If they had questions about the directions, they were assured they were on track by returning the screencast to review the precise instruction for the assignment.

In the field-based experience course, the benchmark assignments included designing instructional activities. In this course the students used an Instructional Design Protocol (Reinhardt, 2019) that focused on strategies and instructional sequencing. It was embedded with links to resources and materials that assist in planning. All these elements were covered in the course content, but once students were planning on their own, they often became overwhelmed and lost confidence. The accompanying screencast provided a scaffold for students to rely on as they learned to develop instructional activities.

Formative feedback while planning

As a key benchmark for success in the field-based course, the high-stakes nature of the Instructional Design Protocol (IDP) necessitated on-going feedback during its development. Students moved forward at different paces and with diverse needs as they planned. On-going face-to-face feedback was typically used to support students during the process. As the field-based experience moved to a virtual setting, the management of individual feedback for the complex tasks involved in learning to plan for teaching were not met through text feedback. The use of video feedback was a targeted way to offer development feedback that was specific yet encouraging.

Like the use of screencasting for directions, the formative feedback offered during the planning process allowed students to hear the feedback and to see precisely where in IDP they needed to address concerns. As an initial round of feedback, each IDP is reviewed during a screencast. Comments on the places a student did well were highlighted, and areas of concern were identified. Most applications such as Word and Docs allow for collaboration with comments, and once the screencast was complete, the link was inserted into a document comment. This allowed the student to target the content to consider for revision and respond to the instructor's feedback with their own questions or comments. The use of comments within a document that included screencasts was further extended by asking students to tag the instructor in any reply comments. This created a feedback loop that was direct and personalized for students. They responded whenever they were working on their IDP, and the professor was directed to the exact question within the document.

Conclusion

Screencasting software had a positive outcome for students. As a high leverage practice, it offered direct and personalized feedback. Student names are more readily used, the feedback covers more elaborate topics, and it is formative. Encouraging critical awareness of one's own knowledge creation, students can build on their own strengths with confidence they have been heard and seen by their professor. Students remained focused on the task using multiple means for representing directions and were scaffolded and supported throughout the process of instructional design. The ability to focus on

complex tasks in personalized ways improved student self-efficacy and built self-confidence. The process of learning was supported as a developmental process rather than a corrective process.

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TEACHER ROADMAP TO INTERACTIVE LEARNING

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Abstract

Education relies on depth of learning. Without interactive learning, this is often a struggle. Interactive learning empowers the learner and instructor by placing the initiative and a bit of control in the hands of the student. Beginning with the first moments and first materials of the class, educators have the ability to invigorate and engage learners with simple but effective additions. By outlining some of these methods, the authors explain the impact and importance of developing these skills in students including preservice teachers of all ages.

Keywords: *interactive learning; engaged learners; engaging methods*

Teacher Roadmap to Interactive Learning

Introduction

In education, the goal is to leave students with the knowledge and skills they need and the tools that will help them meet with success. Much of the time, this closely relates to how actively engaged they are in the classroom. Incorporating strategies, such as those described below, allows educators to actively involve students in the learning process. This is particularly important when the students are preservice teachers because preservice teachers have the potential to take these best practices and pass them on. Still, these active learning instructional methods should not be limited to only classrooms serving preservice teachers who are students. For this reason, throughout this article the word “students” will be used to avoid unintentionally excluding others.

Syllabus Reconnaissance

Each semester educators prepare well-developed syllabi that they believe will excite students as well as motivate them to map out their success in their course. The notion is to create and design syllabi to allow students in their classes to independently navigate through their courses. Strong course design has been linked to increased student satisfaction, retention, and achievement of student learning outcomes in college (Rienties & Toetenel, 2016; Stewart et al. 2012).

Class syllabi allow students to find their own answers to questions most often asked in class such as *when is the assignment due? Is late work accepted? How many points do I need to earn a specific grade in this class?* Syllabi should be viewed as teaching assistants for the course outlining expectations,

course guidelines, and making students aware of educators' preferences in class and for students in their courses.

The barrage of surface-level questions that can easily be answered through the syllabus leave educators shouting the loud refrain, "It is in the syllabus!" Students review course syllabi the way they review owner manuals, not knowing or realizing that the unspoken rule is that they should become intimate with the syllabus, not merely learn course expectations through osmosis.

In theory, students review information in the class syllabus before the start of class to help them formulate any questions they may have regarding assignments, due dates, etc. If students refuse to read the syllabus, the question then becomes, *how do we make students aware of the information included in the class syllabus? Are students unaware that educators expect them to review course expectations before the first class meeting?*

How do we get students to read the syllabus?

The answer to this question has eluded most professors for decades. Why do students not correlate their success in class with their familiarity with the syllabus? Some students may feel intimidated by the amount of information included in class syllabi. Current syllabi are 10 to 15 pages which for most students appears to be a momentous feat to read. Incorporating the syllabus reconnaissance allows professors to guide students through the syllabi.

To implement the syllabus reconnaissance strategy in the classroom professors provide students the opportunity to peruse the syllabus before coming to class. During class, students are given five minutes to mark five things in the syllabus that they feel are important to every student in the class. The highlighted items may include course expectations, due dates, etc. Students are then paired with their classmates to compare notes. After collaborating with a partner, students are permitted to ask questions about the expectations of the course.

The syllabus reconnaissance activity allows students the opportunity to interact with the syllabus while collaborating with classmates. During the class discussion, students ask questions about information in the syllabus. The discussions prefigure what students can expect regarding class assignments. More importantly, including the syllabus reconnaissance strategy in your class will allow expectations and learning outcomes to be established at the start of the semester.

Initial Instruction

One of the most powerful ways to make interactive learning a foundation and regular practice in a classroom is through directly interactive learning experiences. For some teachers the idea of interactive learning feels like too much of a strain to get students doing the work themselves to learn the material in a way that is true to the content, upholds the standards, and maintains the integrity of the course. For those kinds of teachers, their concern is well supported when one considers the impact and consequences of high stakes testing. However, when that is the only consideration made for instruction, very little *real* learning occurs. Creating an instructional framework that includes interactive learning, even in the initial interactions students have with each other and the content can lead to positive long-term academic and personal impacts (Swift & Godwin, 2021).

Self-evaluation

One important way to help empower students to tap into and find ownership in their learning is through enacting self-evaluation instruments in your classroom. Self-evaluation tools are an important formative assessment tool (Black, & William, 1998) that can be used daily, through KWL charts, quick formative assessments, or even student learning journals. Or, teachers may choose to utilize long-term self-evaluation tools such as pre-and post- interviews conducted at the start and end of a grading period can provide powerful bookends for students to understand their learning journey. These interviews can be conducted in a number of ways: virtual postings into private online forums such as Seesaw, Blackboard, and others. The interviews can be conducted in private learning journals, or even in a Google document. Through asking pre- and post-interview questions to students, teachers are able to not only get a feel for what students already have established in their curricula schema, it also promotes active self-awareness, good communication, and reflective dialogues.

Making connections: SEL

In Rita Pierson’s 2013 TEDTalk she explained, “in order for any real learning to occur we have to make connections.” Now more than ever the need for consideration of student social and emotional needs in tandem with teaching curriculum is critical. With the emotional stress and trauma of the Covid-19 pandemic, many teachers are turning to Social and Emotional Learning (SEL) strategies to supplement their class activities which can help students develop character traits and behaviors that can benefit themselves and society (Duckworth & Yeager, 2015).

Teachers are striving more than ever to engage students in the content but also to educate and enrich the “whole child”. After all, school is one of the places where students learn the social and emotional skills they need to be successful not only in school settings but also in communities and ultimately in their future workplaces. Durklak et al. (2010, 2011) suggested the SAFE acronym as a directional focus for good SEL programs to follow, they should be:

1. Sequenced: connected and coordinated sets of activities to foster skills development
2. Active: active forms of learning to help students master new skills
3. Focused: emphasis on developing personal and social skills
4. Explicit: targeting specific social and emotional skills

In other words, social and emotional learning should be step by step, it should be continually practiced with an application of concepts, it should be pointed and specific. The impact of SEL programs on student success includes graduating high school, being ready for higher education, success in personal and professional life, a reduction in criminal behavior, and more civic engagement (Hawkins et al., 2008; Jones et al., 2015).

Arts-based assessment

One fantastic way to support student social and emotional health and growth is through the implementation of arts-based formative assessment (Swift & Godwin, 2021). Although there is a strong, established and long-lived body of research that supports students have multiple forms of intelligence, there is now a growing community of researchers supporting the necessity of arts-based formative

assessment in order to really allow students to express themselves in the way that works best for their form of intelligence and their ways of communicating understanding.

Not only does arts-based formative assessment support student academic achievement, it also provides tangible practice with being creative, an established 21st-century skill (Zhao, 2012). Recent movements in awareness, advocacy, and action have encouraged using artistic mediums including dance as a non-violent form of communication and civic engagement. Supporting student creativity can enhance student academic achievement, problem-solving skills, and confidence, qualities that will serve them well not only in class but also in life.

Teaching with stories

Brene Brown (2013) encourages us to “embrace our vulnerability,” and good teachers know this to be true from their own experiences in facilitating effective, impactful lessons. Good teachers have students explore the stories and experiences of others in order to gain intellectual, social, and emotional capital of others to enrich their own understanding of others. Furthermore, teaching through stories that exist outside of a traditional narrative can enrich student understandings of those around them by creating a transformative learning experience (Miller et al., 2020). Teaching with stories is an important component of folk culture that helps individuals connect with their roots and their cultural surroundings, leading to self-discovery (Bruner, 1990), another critical component of social and emotional learning.

Furthermore, using stories as a critical thinking tool for instruction has been supported by research (Howard, 1991) not only to supplement student content area knowledge and reinforce something great (Briody et al., 2012), but they can also be told as a warning can help grow empathy and awareness of others (Stansfield & Bunce, 2014). Consider having students read “Tristan Strong Punches a Hole in the Sky” as a way to explore African American identities as well as how to cope with loss through a magical lens threaded with traditional stories. Although this text is fictional, the powerful themes that radiate throughout provide a safe space for students to discuss topics they may be too afraid to address directly in class dialogues.

For students needing a supplement to history instruction, consider using historical novels with authentic voices such as “Number the Stars” to learn perspectives on Jewish identities and struggle during WWII which contrasts nicely with the experience of Japanese Americans during the same time period with “Farewell Manzanar.” Again, through exploring the experiences of others, students are not only working through an activity in empathy (Stansfield & Bunce, 2014), but they are also gaining cultural awareness and sustained cultural practices through the people and experiences that they read about.

Storytelling as an instructional medium is not limited to novel readings but can also transfer into technology-based learning strategies. There are webinars and interviews with people who have experienced historical events and phenomena who provide their story in their own voices in real time and the imprint of that recollection can be found on the Internet. Other resources such as Stories That Move, A Toolbox Against Discrimination <https://www.storiesthatmove.org/en/> and others have been developed with the intention of classroom teachers having resources and support to address tough topics with students using authentic voice and interactive tools to bring the hard stories to life so that we can not only learn from history, but also grow from it.

Student Choice

Students need to have a choice and a voice in their learning activities. Students who have a choice in their learning are more likely to be involved in meaningful and engaging learning (Ashwin & McVitty, 2015) and are more invested in good work habits (Denton, 2005, p.208) that have a positive impact in their overall learning. When students are able to enact choice with their learning, they feel a sense of responsibility and happiness in their work, and students who are more joyfully engaged are better able to process the material and retain the content and skills they used (Willis, 2006).

One of the best ways to construct a community of respect, excitement and genuine learning is through providing student choice and voice. Choice boards allow teachers to organically construct standards-based assignments that are congruent in the tasks being completed and the topics being addressed but differentiated either by student input or student output. An example of a choice board that is differentiated by student input would be one that allows students to choose a way in which to learn, a practice which takes into consideration the idea that students come to class with multiple intelligences (Gardner, 1993). For example, students can choose to learn through individual research, work on a research team, watch approved documentaries, listen to approved podcasts, or even take a virtual museum tour.

Choice input can be adaptable to other subjects and can of course include a variety of other different methods of instruction, even with real time interactions with more knowledgeable others (Vygotsky, 1978). Allowing students to have choice transforms the classroom into a space of interaction with others around concepts rather than passive transmission of packaged information (Wood, et. al, 2018). Bishop and Verleger (2013) argue that the teacher-student interactions involve a ‘zone of proximal development’ where a student can achieve more with the help of a more knowledgeable other than they can by themselves.

Some other ideas include in mathematics, a student could learn another perspective on a lesson from a friend at a different school via Zoom. Some teachers have found success in developing and maintaining pen pals from other country’s math classes. By writing letters to each other, students are able to not only practice good written communication skills, they are also able to learn a different way of solving the same problem. A student in a science lab could interview a geologist in the field. A student in an English Language Arts class could attend a live stream of an interpretive Shakespearean play. The possibilities are endless when one considers the cultural and intellectual capital that students could be exposed to through supplemental choice assignments such as these and others.

Allowing those kinds of choices are not only impactful in creating authentic environments for enriching learning to take place on a students’ own terms, using their own forms of intelligence (Gardner, 1993) but it also allows for students to feel a spark in differentiating how he or she chooses to express his or her understanding. That means practicing differentiation through student output. This is perhaps the more controversial area for some teachers because of the previous drill and kill style teaching that has been so popular in the era of high stakes testing. Many teachers have taught to the test in a drill and kill way (Kohn, 1999) for so long that teaching for authentic learning is a difficult idea to understand. However, when teaching in an authentic way to students who are enthusiastically learning the content on their own terms really changes the flow of the classroom and the retention of content.

With that in mind some ways to differentiate student output may include allowing students to choose between several methods of expressing understanding by constructing a student output choice board. Great choice boards are built with congruent output considerations. For example, it would not make sense to have students choose between making a map or writing a 2000-word essay. Art is a great medium to give students to explore this kind of output, but the output must be similar in the expected outcome as well as in the standards addressed, even if the assignments look a little different (Donovan, & Anderberg, 2020). Some examples of congruent output might be constructing a poem or writing a song, maybe creating a skit or choreography to not only show understanding, but also to demonstrate analysis and critical thinking about the content.

Foldables

Using foldables in elementary school is fairly commonplace. Approaching the idea in middle school is a little less common but can still be seen in a handful of classrooms from time to time. Foldables in high school? Or college? Practically unheard of. Why is that? What makes the use of a strategy such as foldables off limits for higher grade levels? NOTHING. Nothing at all.

Johanne Patry, in a 2010 conference presentation on concept mapping, argued that “students increasingly need to literally manipulate knowledge”. In order to continue to promote active learning and engagement in our secondary and higher ed classrooms, we must not forget or be afraid of the strategies that worked for elementary age students. Take, for example, the dodecahedron shapes commonly found at Dollar Tree stores. These can be used to review materials from a unit as a small group or individually. In a social studies/history course, this particular 12-sided foldable could be used to review four key concepts, four key events that led to the Civil War and four key leaders during the time, for example. Simple bound books can be used for qualitative and quantitative observation journals. As Dr. Nancy Frey explained in her 2009 presentation for BOOST Best of Out-of-School Time Conference, “Hands on does not mean minds off. Foldables can be used to promote content learning.” By using foldables in secondary classrooms, we can engage students in their learning while ensuring the essential knowledge and skills are embedded in their minds.

Book Tasting

A book tasting is when a teacher assigns reading based on chunks of text for students to read and then share. After all, chunking the text has been found to have positive outcomes in comprehension (Yang et al., 2020). In many elementary and middle schools, this instructional method is called book tasting. In high school, this can be adapted and called “Speed dating” to get students hooked into the idea that this is a quick and engaging way for students to interact with each other and the text.

Students read their portion of the text and then find the main idea, that is what they will share out and discuss with others during the specific “speed dating” activity which promotes not only a sense of urgency when things are timed in class, but also enhances the focus of time spent sharing with each other. There is an emphasis here on cross curricular and 21st century skills. When doing this method of instruction, students have to learn to read for understanding, find the main idea and put it in their own words, and they also have to learn the way that others communicate effectively so they can communicate that main idea to them. Then, students must listen carefully to what their peer(s) is saying so they can learn that part of the lesson as well. Here students are also learning that they can build a symbiotic classroom community and work together toward a common goal: learning!

Review Strategies

Fun and engaging activities to review materials are an entertaining way to add excitement and energy to any classroom. The time for reviewing worksheets and packets has passed. We can utilize many activities that broaden the minds of our students and enable them to work together, building community and engagement through active learning strategies such as ABC Graffiti, RAFT Writing, VoiceThread, QR Scavenger Hunts and a list of others.

ABC Graffiti

The purpose of the ABC Graffiti strategy is to allow students to actively engage with the material presented by enabling them to work together to complete the “graffiti”. This activity is often used as a fun competition. ABC Graffiti enables students to “work collaboratively to learn from and share with others; and to generate ideas and cover several issues or aspects efficiently” (Government of Australia Department of Health, n.d.) Students will work in groups of three or four.

Each group will be given a large sticky note and markers with which they will list the alphabet, leaving room to write by each letter. The students will then be provided a topic such as The Fall of the House of Usher. At the start of the timer, students will begin writing something on the topic by each letter that begins with that letter. For instance, by the letter P, students might write Poe for Edgar Allan Poe, the author of the story. An allotted amount of time will be provided for students to work together to complete as much of their chart as possible (Hawkins & Williams, 2020).

When the provided time ends, students will share their lists with the rest of the groups until all groups have shared. For each response they have that is the same as another group, they must mark it off. For each letter response that is UNIQUE, they earn a point. The group at the end with the most points wins bragging rights or a small prize, if you choose. This activity is a great introduction to a new topic, a checkpoint to see where students are in the middle of a unit or a great closing review activity when a unit is completed. It lends itself well to any topic in any subject area. It allows students to work as a group to build community, provides a fun competitive atmosphere and enables students to think outside the box as questionable responses can be challenged and justified. This is an activity that works extremely well in face-to-face environments but can also be used in a virtual setting by assigning students to breakout rooms where the instructor can pop into each room to observe at any time, coming back together in a larger group for presentation and discussion.

RAFT Writing

More often than not, students do not see themselves as writers and often struggle with lengthy written tasks. Additionally, at times, it can be difficult to inspire students to dive deep and activate their critical thinking when and if they feel intimidated by the task. Fisher et al. (2008) described RAFT writing as “writing to learn” which “involves getting students to think about and to find the words to explain what they are learning, how they understand that learning, and what their own process of learning involve” (Mitchell, 1996; Fisher et. al., 2007).

RAFT Writing is a strategy that forces students to focus on four key aspects when writing: their role - Are they an artist? Are they a teacher? Are they a journalist?; their audience - are they writing to a newspaper? Are they writing to a friend?; their format - will it be a speech? Will it be a letter? Will it be a

newspaper article?; their topic - What is the subject or topic of their piece? The strategy allows “learners [to] have positive attitudes, a high motivation for learning as well as active participation in learning to recount text writing skills through the technique” (Kabigting, 2020).

Take for instance this example for a higher ed education classroom. The pre-service teachers would take on the role of the teacher. Their audience could be their middle-school self. Their format could be a letter, and they could be offering support and advice they needed when they were that age (topic). The purpose of the assignment was to reflect on their experiences during their young adolescent years and apply them to the developmental stages discussed in class and the text. They would be directed to think about what they needed as a middle-level student. In the letter, they would portray themselves as the teacher they needed. They would focus on what struggles they faced during that time of their life. What did they need someone to do for them? How did they need to be treated and understood? They would need to be specific, be thorough and be thoughtful as they addressed their own struggling young adolescent self. This specific writing task expects students to look at and apply materials by considering the topic from a different perspective (Santa & Havens, 1995). An activity like this forces students to think critically about their task and materials then requires them to apply that thinking to a specific issue or issues.

VoiceThread

The University of Wisconsin in Whitewater (n.d.) describes VoiceThread (VT) as “a collaborative, multimedia slide show that holds images, documents, and videos and allows people to navigate slides and leave comments in five ways - using voice (with a mic or telephone), text, an audio file, or video (via a webcam).” Ed.VoiceThread (2005) reports VT as “a platform where students develop critical thinking, communication, collaboration, and creativity skills”.

This type of activity strongly connects to 21st-century skills that our students need. It also empowers dyslexic students as it enables them to voice their ideas and reactions rather than focus on the struggles they face with the written word (Pacansky-Brock, n.d.). The purpose of this higher ed VoiceThread assignment would be to have students analyze a publication of the National Middle School Association’s *This We Believe* and apply it to their developing philosophy of education; particularly their philosophy of working with middle-level students. Students would be asked to approach the “presentation” as if they were being interviewed by a campus. They could be asked to focus on specific elements such as: how would they convey their belief of the concepts to a potential employer? How would they sell themselves to a prospective principal using four of the sixteen characteristics discussed in class?

Veering away from the common written essay and choosing a digital format such as VoiceThread enables students to apply their philosophies and understanding to a real-world, relatable scenario and engages the learner in a critical synthesis of the characteristics discussed in the book. This particular strategy or platform can be implemented in any course with a variety of content. Additionally, VoiceThread “makes a powerful replacement for traditional, text-based discussion boards. While flat text scrolls and pushes the topic of conversation off the screen, VoiceThread allows for richer, more dynamic conversations that take place around the topic rather than below it” (VoiceThread, 2013).

Book Clubs

Promoting student empowerment can easily thread literacy instruction into all content areas. For example, student self-selected book clubs can lead to positive learning outcomes not only in reading skill refinement including reading comprehension, it can also lead to student skill building in oral communication, relationship building, and practice with productive struggle through intellectual discourse in the form of constructive dialogues (Allen, 2021).

In order to conduct a student self-selected book club, first have students choose a book from a previously established, instructionally congruent list of book choices. Then, instruct students that they have a certain timeline in which to read the book and ask for volunteers to serve as the book club leader. Next, have a book club leader meeting where you will inform leaders that they will conduct a book club meeting in their own way during class time. Some groups may choose to conduct a Socratic-seminar style dialogue in which the leader brings questions about the text and book club members interact based on their feelings and opinions using evidence from the text to support their arguments. Other groups may choose to use technology for their book club meeting and use a running Google document as a way for participants to interact with each other as they post responses in a running, threaded dialogue during book club time. Finally, students will reflect on the book club experience. The students should discuss how their feelings about the text changed and stayed the same as they reflect on their book club meeting. Students should elaborate on why their feelings changed or stayed the same as they provide text-based evidence for their claims.

This kind of interactive learning not only supports cross-curricular learning, it also enhances student understanding of content, allows for practice in communication, and reinforces the critical thinking skills needed to become an informed citizen.

Conclusion

Active engagement in the classroom creates an environment where students of all ages are more inclined to be involved in learning. Students who interact with content are thoroughly engaged in their own learning. Those students are better equipped and empowered to retain the knowledge educators are attempting to impart resulting in long-term content attainment, application, and most importantly, more meaningful learning experiences. By teaching students and pre-service teachers to do this, we are opening up opportunities for broader, more enriched learning. Through modeling these active learning strategies we hope to empower our students, to spark something (Godwin, et al., 2021), that love of critical thinking, and a love of active learning for them to practice in their future classrooms.

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EARLY CHILDHOOD NOVICE TEACHER RETENTION

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Abstract

Early childhood novice teachers often do not receive the support they need upon entering the field. Those who are not provided with effective mentorship and professional development will struggle more to adapt to the demands of teaching. A lack of ability to make decisions about how and what they teach may further contribute to lower job satisfaction and eventual burnout. A combination of such factors contributes to a historically high teacher turnover rate during the first five years of teaching. Early childhood education needs more highly-trained teachers who are willing to stay in year after year. Aside from higher wages, in order to retain teachers, districts should offer better novice teacher mentorship, professional development, administrative support, and more autonomy regarding how and what is taught in the early childhood classroom.

Keywords: early childhood, novice teacher, teacher retention, teacher attrition, teacher turnover, mentorship, professional development, play

In two recent novice teacher pinning ceremonies held at a university in a small rural town, in-service teacher professionals were invited to give a keynote speech inviting upcoming teacher-graduates into the field. Instead of merely delivering uplifting comments about the joys of teaching, their speeches were riddled with warnings about the difficulties of being a novice teacher. The overriding message was that teachers are entering a field with many problems. The important thing is to try to focus on the positive moments from which you can source joy. A recent early childhood education graduate who attended one of these pinning ceremonies acknowledged the concerns in the keynote speaker's message. In a private conversation with one of her professors, she described her first year in an early childhood classroom as being troubled by defiant student behavior and a severe lack of administrative support. This influenced why she decided to leave her position, and almost the field entirely.

Stories akin to those from her first year are echoed throughout the research. Many childhood teachers leave the field during their first five years because they become discouraged by the differences between what they anticipated and their actual teaching experiences. The result is that during the early childhood years children are less likely to be placed with a seasoned teacher who possesses the wisdom and expertise earned through years of experience. This is detrimental because development during the early years is vital to later academic success, as well as to the overall quality of the life of a child. Since the 1960's, various studies have affirmed the effects of the long-term benefits of having access to a high-quality early childhood education.

According to research released by the Learning Policy Institute, studies of the Abecedarian Project, Perry Preschool Project, and Chicago Child-Parent Centers followed children into adulthood and

found additional benefits for graduation rates and educational attainment, which generated cost savings for society as a whole. These long-term benefits appeared whether or not test score differentials were consistently found, suggesting that the range of cognitive, social, and emotional skills and abilities children develop in preschool and carry through grade school may serve them well in a variety of ways throughout life. (Darling-Hammond et al., 2019, p.1). Results from studies like these support the necessity for trained teachers who can make meaningful connections with their students and provide a high-quality education based on knowledge gained through experience and learned expertise. High teacher turnover prevents children from developing a secure attachment with teachers (Raikes, 1993) and also has a negative impact on their social, emotional, and language development (Korjenevitch & Dunifon, 2010). Consequently, the high teacher turnover rate can result in lesser quality experiences for children during their early years of schooling.

The recent pandemic has only compounded the problem of teacher turnover (Reich et al., 2020). Thus, talented new teachers are leaving the profession after only a few years due to being exposed to the most negative aspects of schools without having enough exposure to positive experiences. Moreover, many new teachers describe feeling that they are not respected as professionals, unlike professionals in historically respected fields such as law, engineering, or medicine. Instead, many teachers feel they are viewed as glorified babysitters in a field treated as though it does not require a specific skill set. CEO of Jack and Jill Children's Center in Fort Lauderdale, Florida states,

We treat these people like they are meaningless, like they're babysitters, like the work they are doing is not important...We are kept at a high standard—all this pressure to get these kids ready, keep them healthy and safe, be mandatory reporters. There are all these things put on us, and then it's like, "Here's your minimum wage." (Sullivan, 2021)

Reasons such as negative experiences and an absence of respect are further compounded by a lack of good mentorship, professional development, and the inability for teachers to make professional decisions regarding the curriculum. It is this combination that leads to such a high teacher attrition rate.

Early Childhood Teacher Attrition Rates

Teacher attrition is not a new issue for the profession; in fact, it has been a problem since at least the early 1960's. According to an article in *Life Magazine* (1962), "Too many will quit permanently because they are fed up (Meryman, 1962, p. 104)." This historical article in *Life Magazine* further discusses the disproportionate number of teachers leaving the field in comparison to those graduating and entering the field. It further cites low wages, overcrowded classrooms, and a lack of respect for the profession, all as being problematic to teacher retention, and all of which remain issues of contemporary times. Many of these timeless issues are compounded by expectations placed upon novice teachers as they enter the field.

Once a novice teacher is hired, they face the daunting and demanding task of setting up a classroom that is inviting and safe, and of also successfully impacting student achievement. A typical first year of teaching is filled with nerves, excitement, and uncertainty. The demands are usually great but are too often expected to be met without the needed support from campus and district professionals. The experiences of novice teachers are the most difficult time in a teacher's career (Gavish & Friedman, 2010) and have been described in the research literature as "sink or swim" (Lawson, 1992; Lortie, 1975), "baptism of fire," or "trial of fire" experiences (Hall, 1982; Pataniczek & Isaacson, 1981).

Districts across states have tried to implement systems that support novice teachers as they progress into their next stages of the profession. One type of support provided is an induction program that is set in place to provide novice teachers with the comprehensive support they need to prepare them for work on their specific campus. These needs may include training teachers to deliver a specific curriculum adopted by the school or training them in the type of discipline strategy expected to be used schoolwide. Induction should also assist teachers in building a healthy and organized classroom environment that is efficient in managing and supporting student's social, emotional, and cognitive needs. On the contrary, novice teacher induction is time most often spent learning policies, meeting district mandates, and expectations for administering assessments (Fantilli & Dougall, 2009).

Research on the induction process reveals that induction works best when it is systematically embedded in the culture of a school (Alliance for Excellent Education, 2004). This means that administration must take an active role in the workings of the induction program on their campus. Empirical evidence shows that school administrators' engagement is important for creating a structure supportive of the induction process through their impact on school culture, instructional leader role, support of new teachers, and involvement in mentor selection (Long et al., 2012). Effective induction programs rely heavily on collaborative support structures among all stakeholders; however, without the support and commitment of the campus administrators, the intent of growing novice early childhood teachers into successful and retainable classroom teachers may not be attainable.

Mentorship and Professional Development

Mentorship

Mentoring programs should support novice teachers as they help them adjust to their new professional responsibilities and encourage them to remain in the teaching profession (Chesley & Jordan, 2012). However, Kelly and Northrop (2015) conducted a study using the Beginning Teacher Longitudinal Survey which pointed out that novice teachers feel overwhelmed by a lack of guidance, mentorship, and support, which is compounded by a lack of democratic ownership of choices made by administrators and executive faculty that directly affect what and how they teach. Learning to teach is an ongoing process, and while teacher preparation programs lay the foundation for teaching, a great deal of what teachers learn comes from their experiences after entering the classroom. Therefore, mentorship and professional development should feel like a support network for teachers as they navigate these new experiences.

Yet, novice teachers report being reluctant to ask questions or to seek assistance. This is perhaps because the responsibility of mentorship is often assigned to veteran teachers who already have many other assigned duties. Further, mentors may not be properly trained on how to guide a novice teacher through proper lesson planning, implementation of classroom systems, or delivery of effective instruction. Novice teachers should be provided opportunities to expand their professional growth by having reflective conversations and meaningful engagement with veteran teachers who understand how to serve as mentors, and who are glad to accept the task.

As a former administrator, I found that mentees were more confident as they progressed through the year on campuses where mentors were properly vetted, provided for with clear expectations, and also given continuous professional development. It is important that campuses successfully implement these opportunities to empower and retain novice teachers. However, mentoring can be a daunting task, especially when it is not embedded in the culture of the campus. Furthermore, within and between schools

and districts, there is often no standard format for mentorship in terms of it being introductory or ongoing, and there is no uniformity in how mentorship should be administered. It is proven that effective mentorship relationships are ones that are ongoing, have campus administrative support, along with a financial incentive for the mentor (Kelley, 2004).

Professional Development

Professional development can also be important to the induction process. Unfortunately, it is often not presented as a practical application of teaching strategies and techniques. Perhaps that is because districts often underfund or under plan professional development opportunities and do not place much emphasis on making the experience hands-on, engaging, or for beneficial immediate use and practical application in the classroom. Instead, on many campuses professional development sessions are presented as a one-size fits all approach, despite evidence that novice teachers are often in need of a more tailored experience. For example, while they may need learning that is focused on lesson planning, classroom management, and content delivery, they may also have other, more individualized needs. Yet, novice teachers express that the material presented during professional development is often not relevant to what they need in order to be more successful in the classroom (Borko, 2004). Instead, they report feeling that it is time that would have been better spent with their students. Some also believe that professional development held outside of contract hours should be awarded with a stipend for overtime, which it typically is not.

Professional Decision Making Regarding the Curriculum

Professional decision making regarding what is taught in the classroom is often not an option to which teachers have access, despite entering the field carrying with them a toolkit of acquired knowledge from their time spent in a teacher preparation program. This toolkit likely includes ideas such as best practices using a whole-child approach to teaching a developmentally appropriate curriculum.

NAEYC defines ‘developmentally appropriate practice’ as methods that promote each child’s optimal development and learning through a strengths-based, play-based approach to joyful, engaged learning. Educators implement developmentally appropriate practice by recognizing the multiple assets all young children bring to the early learning program as unique individuals. (NAEYC, 2020, p. 4-6)

Implementing a curriculum based on best practice or developmentally appropriate ideals often includes modes of teaching that integrate play and creativity into the curriculum. These modes of teaching may include the use of open-ended hands-on centers, thematic units based upon student interests, project-based learning that allows for collaboration and deeper meaning making over time, and student-led student-inspired lessons that result in high levels of engagement and information retention. However, upon entering the field, novice teachers often find that they are not given the power or freedom to execute professional decisions regarding the curriculum in ways that allow them to implement such modes of teaching. In fact, many novice teachers report finding it nearly impossible to implement modes of teaching that allow for ingenuity on behalf of the teacher professional and/or the learner. McDonald (2019) stated,

When I taught kindergarten, I strove to provide an engaging environment where play was the prominent support for and means of learning. But in truth, I found it challenging. Early in my career I used a didactic approach full of worksheets and drills because it was expected. (p. 22)

Despite research showing that play and creativity are of higher value for deeper meaning making and more learning experiences, the lack of freedom in professional decision-making forces teachers to present the curriculum through the use of textbooks and skill and drill practices that employ deskwork such as worksheets. The result of testing mandates and strict standards-based curriculum demands abolishes any allowance for teachers to make executive decisions concerning the content they deliver. Thus, play and creativity are often eliminated, even in early childhood classrooms where play and creativity are so important to learning and development.

“Play is so important to optimal child development that it has been recognized by the United Nations High Commission for Human Rights as a right of every child” (Ginsburg, 2007, p. 182). However, early childhood teachers report being concerned that the students in their classrooms are no longer allowed to play, despite research showing that play during the early years is a primary factor in positive growth and development of the whole child. Play allows them to socialize, explore their emotions, problem solve, communicate, move their bodies, and to interact with their environment and other students in meaningful ways. A 2018 report released by the American Academy of Pediatrics states that based on research, doctors have found

...play helps children learn to cooperate, solve problems, negotiate and develop leadership skills and creativity, and it ensures a strong start in language and cognitive skills...decrease anxiety and may serve as a buffer for toxic stress...The report encourages early childhood programs to ensure a balanced curriculum that includes playful learning to promote healthy development. (Masterson & Bohart, 2019, p. 3)

Such research highlights the value of allowing teachers to make decisions regarding what is included in the curriculum taught in their classroom. Hence, teachers should be able to integrate and provide time for play and creativity, especially since it is considered best practice and developmentally appropriate for children to engage in such activities.

Opportunities for students to use creativity allows students to develop cognitive structures based upon problem-solving, self-expression, logical reasoning, and abstract thinking. Some of the highest forms of thinking take place when a child is engaging with the curriculum in creative ways, which is why creativity is positioned at the utmost level on Bloom’s Taxonomy (Anderson, 2001). Opportunities for creativity allow for both hemispheres of the brain to be active. However, in order to fully engage students in creative ways, teachers need to first have the freedom to plan and implement a curriculum that fosters elements of creative thinking. This is often not the case. Instead, teachers are often expected to teach so that their students can pass state and district level testing mandates. Even veteran colleagues and administration feel the residual impact of these stressful and rigorous requirements. Such requirements decrease satisfaction with the overall school climate and hinder the development of the whole child, as teachers can no longer make curriculum decisions concerning what is best for the individual needs of each student.

Play and creativity are often seen as a frivolous waste of time by those who do not understand that play is the work of children, and that creativity is possibly one of the most valuable components of learning. One-size-fits-all learning objectives often relay the message to teachers and students that there is no time to enjoy learning because meeting performance-based standards are of higher priority. When early childhood teachers lose the power and freedom to make decisions regarding the curriculum, particularly with regard to integrating play and creativity, both teachers and students tend to become less satisfied with the educational experience. “The current educational emphasis on standards and high-stakes assessments places tremendous pressure on teachers and children, leading to potentially

‘problematic teaching practices’ (McDonald, 2019, p. 22), and like a domino effect, students become bored, negative behaviors and other problems ensue, teacher burnout increases, and turnover results, further contributing to a lack of novice teacher retention in early childhood.

Conclusion

Ingersoll and Strong (2011) examined the effects of induction and mentoring practices for novice teachers. They state, “Teaching has relatively high turnover compared to many other occupations and professions such as lawyers, engineers, architects, professors, pharmacists, and nurses” (p. 202). The emotional toll that early burn-out factors have on novice teachers is magnified by low salary, poor health care benefits, and little to no opportunity for pay increases, performance awards, or career promotion. If the lack of economic and mental well-being negatively affects the self-efficacy of novice teachers in regard to their perceived ability to perform well during their first few years, the likely result is stress, emotional exhaustion, and eventual early burnout.

New evidence at the intersection of neurobiology, developmental science, and early education carries vast implications for how we think about children’s early childhood teachers... We need a much deeper understanding of the personal, workplace, and economic supports that teachers require... And we sorely need to experiment with interventions that focuses on teachers’ economic well-being and mental health.” (Phillips et al., 2016, p. 3)

It is time we begin to explore avenues for teachers to receive high-quality mentorship and applicable and engaging professional development opportunities. Lastly, autonomy concerning curriculum decisions should be placed back into the hands of teachers as trained professionals who understand what is best for students.

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EMBRACING OUR CAMPUS QUILT

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Abstract

This study was conducted to find how secondary education teacher candidates viewed global engagement issues and hidden identities as a way to embrace their campus quilt at a regional state university. Our outcomes included not only identifying positive identity engagement, positive global engagement, and positive cultural engagement, but also positive teacher candidates-an indicator for a brighter tomorrow.

Keywords: *global engagement, hidden identity, building community, relationships*

Embracing Our Campus Quilt

Introduction

The United States is becoming more globally diverse, therefore, attention to global issues is not only necessary for practical reasons but also because schools are reflections of the communities in which they are situated (Haupt, 2010; Levesque, & Croteau, 2022). Schools are becoming global (Fitzsimons, 2019) with the rise of super-diversity (Magazzini, 2017; Vertovec, 2007). It follows then that not only are today's college graduates joining an increasingly global workforce (Shadowen et al., 2015) and that teacher education programs play an important role in preparing candidates for life in their community (Byker & Marquardt, 2016). Therefore, it is vital for teacher candidates to recognize and embrace the intricate pieces that make up their cultural campus quilt in order to be better informed teachers and citizens (Sincer et al., 2022). For the purpose of this paper, the researchers define a campus quilt as pieces in the lives of teacher candidates such as their defined identities, both hidden and apparent.

In order to be effective teachers today, one must be aware of the cultures and identities represented in the communities they serve. Hidden identities have become an area of increasing interest (Cech, & Waidzun, 2011; Camacho et al., 2021; Martin et al., 2014; McCall et al., 2020; Mobley et al., 2019; Secules et al., 2021; Smith & Lucena, 2016) for educational researchers. Although these hidden identities have focused primarily on gender-identity and sexual-identity, this work is more interested in framing hidden global identities. That is, identities that might include different languages or cultures of origin. Global identities may also include time spent in international or global settings and other factors that are not identifiable in an immediate sense. Our goal is to incorporate best practices for creating safe social and emotional spaces for teacher candidates by centering the idea of student agency with regard to hidden identities; in other words, the researchers are going to trust and respect teacher candidates when they identify a certain way; in other words, we will honor that our teacher candidates are who they say they are (Viscuso, 2013). For example, one of the author's children informed their teacher that their family is

Indigenous, and their teacher did not believe them and told the child to adjust his identifiers to reflect her understanding. Listening to and honoring the voice and perspectives of children in the classroom regarding identity cannot be understated.

This effort is increasing as a rallying cry to provide a safe space for classroom cross-cultural interactions (Godwin, 2021, Ladson-Billings, 2021) even those who have what may be perceived as an apparent identity but even when hidden identities are also present (Secules et al., 2021). This reinforces the idea that the people we interact with every day do not lead “single issue lives” (Enge et al., 2021). The goal of this research was to bring forth the story for one south central regional college campus that provides perspectives on how to co-construct ideas that can facilitate our teacher candidates’ embracing their hidden and expressed cultural campus quilt in effect answering the call by Levesque and Croteau (2022) to “engage students’ historical ideas, attachments, and identities” (p. 120).

Theoretical Framework

Because today’s teacher candidates are a part of a global community that is interdependent (Tytova et al., 2021) and their communities form a complex quilt that is present in today’s classrooms, universities in the United States should prepare teacher candidates for a professional life in that context. That is, teacher candidates should be instructed in how to engage in these complex realities that face their nation and others (Severiens et al., 2014; Toms, 2018). Though global engagement can mean an individual's commitment to exploring general local and global issues; raising political voice and joining non-profit organizations to address a solution to these issues (Morais & Ogden, 2011; Paige, et al., 2008), it can also be described as engaging with individuals and communities that exist beyond a nation's borders to address global issues and promote well-being (Tiessen et al., 2018). We are threading these definitions and inverting them to identify hidden global engagement that happens within our university classroom communities.

Method

The purpose of this research was to learn how secondary education candidates' hidden identities impacted their perception of global issues including other languages of origin, countries of origin, cultural diversity, and others. A retroactive content analysis was conducted on an identity assignment given during the spring semester of the 2020 academic school year in a social studies course for secondary education majors. The assignment asked students to choose selections from the campus common reader that they felt were most like them, selections that were most unlike them, and to explain in a narrative how their own identity was the same or different than what was presented in the text. Then students were also asked to explain how their identity and the story that they related to impacted their life as a student and how it could impact their future life as a teacher. This reflective assignment provided an opportunity to deeply examine their identity through the lens of the campus common reader and to think critically about how their identity frames their experiences.

The purpose of the retroactive content analysis was to use the enriching stories that were provided to create a snapshot of student identity. Here a content analysis is defined as “a research technique for making replicable and valid inferences from texts (or other meaningful matter) to the contexts of their use” (Krippendorff, 2018, p. 24). After the content analysis was completed, teacher candidates completed a survey in fall of 2021 as another means of gathering data. The survey would then examine the global engagement level of college students from a different lens that could illustrate a snapshot of the attitudes

and characteristics of a target population (Leedy & Ormrod, 2005), an IRB was obtained for this part of the study.

Sample

The target population of the study was secondary education majors in the college of education who are attending a state regional university in the United States. The sample of the study was intentional, data was gathered based on responses that teacher candidates submitted in an assignment in class. The sample was also heterogeneous and spread across three classes; some students were just starting their teacher education journey while others had already entered their senior year. Of the students completing the assignment, a fraction agreed to have their information shared with the new campus president in an effort to help illustrate our campus “quilt” to her during her first year in role of president.

Instrument

A professor-developed identity-based assignment was developed that teacher candidates then completed as part of their coursework. The assignment required students to choose one of two writing prompts to respond to regarding their campus common reader, *American Like Me: Reflections on Life Between Cultures* (Ferrera, 2018). One option asked students to “Find TWO narratives from the text that are most like you and TWO narratives that are most unlike you. These FOUR selections from the book will frame your narrative in which you will compare your experience to those four individuals and then construct your own narrative. Finally, address what “American like me” means to you in your life as a teacher-in-training. The second option asked students to “Describe how a school’s culture can represent either a melting pot, in which assimilation is expected, or a salad bowl that celebrates individuality. Identify two school settings that you are familiar with—one whose culture represents a melting pot and one a salad bowl. Describe how the schools you have selected fit into their respective category, and discuss the advantages and disadvantages of each.”

Data Analysis

These reflections were completed by the teacher candidates after reading the campus common reader and attending either a secondary social studies course, an introduction to education course, human growth and learning course. Although the assignment was given to all teacher candidates, fifteen specifically wanted to share information with the university president about their identities in an attempt to provide representation for the population that they were a part of. Here researchers decided to use an inductive method to code the data (Thomas, 2006). Each researcher analyzed the data independently and noted common themes that emerged by reading and interpreting the data. After the researchers analyzed the data independently, they compared notes in those narratives that were provided by identifying common themes in order to provide meaningful data (Krippendorf, 2018).

Findings

The following table lists the most common responses that teacher candidates provided in their identity self-study:

- | |
|--|
| 1. Teacher candidates believe it is important to value others’ perspectives. |
|--|

2. Teacher candidates believe it is important to talk about issues and listen to what others have to say.
3. Teacher candidates have a unique identity that sometimes cannot be captured in demographic data qualifiers.
4. Teacher candidates have experienced racism including through people expecting them to adhere to certain stereotypes.
5. Teacher candidates strive to find commonalities and community on campus.

The most common response to the self-identity study is, teacher candidates, believe it is important to value others' perspectives, which refers to respecting how people identify themselves and accepting others for who they are. An example is when a teacher candidate said, "From my personal experience, as a student, I have also learned that it is important to be a good listener and to value different cultural perspectives. This not only helps others feel valued but also is extremely beneficial to learn from other walks of life." This teacher candidate knows the importance of listening and learning from others' experiences.

The second most common response is, teacher candidates, believe it is important to talk about issues and listen to what others have to say. A teacher candidate said the following, "The best thing we can do for the future of the country is to encourage understanding one another." This teacher candidate understands the importance of effective communication inside and outside of the classroom.

The third most common response is how teacher candidates have a unique identity that sometimes cannot be captured in demographic data qualifiers. Every person has unique identifiers that can only be known or understood if someone takes the time to get to know them. Such as in the case of this teacher candidate who said, "I took what I liked from the Korean culture and I took what I liked from the American culture, and I lived my daily life how I wanted, practicing what I wanted because it was fun and not because I felt a pressure to." This particular teacher candidate identified with two different cultures and lives her life according to how she identifies herself as.

The fourth most common response, teacher candidates have experienced racism including people expecting them to adhere to certain stereotypes signifies that these events occur in all places including schools and the workplace. Such as in the case of this teacher candidate who said, "When my classmates would learn about my ethnicity, if I wasn't met with general disinterest, I'd be faced with uncomfortable questions stemming from stereotypes." Another teacher candidate mentioned, "I have experienced racism for being Indian and Mexican all from different types of people." It is important to acknowledge these events in order to become advocates for change.

The fifth most common response was, teacher candidates strive to find commonalities and community on campus. A teacher candidate said about the university campus, "None of it comes close to the culture of our very own student body, and each clique of the student body shines brightly in its own merit." As educators, we should create a welcoming environment for all students in our classrooms where there is friendship and respect for differences.

Along with the findings above, one of the researchers noticed that once teacher candidates felt comfortable with sharing their identities both hidden and apparent in class within the classroom community, new and unique perspectives and stories started to be shared. One student for example began telling stories of her life in Hawaii and how what she had experienced as a student in a classroom there was completely different from the conceptual classroom her peers had experienced going to school in Texas. Many students disclosed stories of their own immigration journey while others described that they were born in Texas but moved somewhere else during their childhood and/or adolescence. Some of them talked about not really knowing where they belonged, or that they felt like they had come to find a new, non-distinct identity that was uniquely their own. These are just a few of the stories we experienced students sharing once we opened up our classroom community to identifying, embracing, and expressing their identities.

Concluding Thoughts

Teacher candidates in this study have demonstrated an interest in global issues and global engagement. Furthermore, teacher candidates showed interest in engaging with other cultures which supports the idea of embracing their campus quilt. Here we associate the hidden identities that teacher candidates bring to campus with them with the concept of a quilt because their identities can be something that is framed in tradition, knitted together through time and circumstance, and provides comfort when needed.

As teacher candidates become more aware of the intricate parts that create their campus quilt, they will be able to value and be a part of global issues as was predicted by the United Nations (de Mello & Sterpin, 2004) which will in turn enhance their cultural competence (Byker & Marquardt, 2016).

This work was important since it identified that teacher candidates have hidden identity positivity and are already identity engaged, which sometimes also indicated hidden global engagement (Aytug, et al., 2018; Dong, et al., 2008). Further research is needed to determine how teachers' education programs can continue to support teacher candidates as they embrace and express their own hidden identities in a global landscape (Levesque, & Croteau, 2022). If we continue to support teacher candidates in their quest to embrace their own identities and then in turn support community building (Caldwell, & Harris, 2008; Keller, & Kusko, 2015; Lambert, 2003) with their future students in their future classrooms, we can anticipate a more cooperative and accepting community of tomorrow.

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PROFESSIONAL DEVELOPMENT IN JOB SATISFACTION FOR KINDERGARTEN TEACHERS IN TEXAS: A QUALITATIVE PHENOMENOLOGICAL STUDY

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Abstract

A contributing factor to high teacher turnover rates is the contention that teachers are not well-supported in their professional roles. The purpose of this study was to study lived experiences and perceptions of kindergarten teachers about the role of professional development in job satisfaction. The qualitative inquiry revealed that *professional development positively impacts satisfaction, administration is generally accommodating, and there are barriers to fully realizing professional development*. In essence, professional development is found to impact the job satisfaction of teachers. The findings of this study advance knowledge pertinent to potential influencers of teacher turnover, and provide guidance for teacher education and professional development decisions for early education teachers.

Keywords: professional development, teacher education, job satisfaction

Introduction

Teacher shortage and teacher turnover are critical problems in the United States and school systems are facing great challenges of building and maintaining a high-quality teacher workforce (Carver-Thomas & Darling-Hammond, 2017; Neale-McFall et al., 2018; Toropova et al., 2021). High teacher turnover produces a negative impact on the academic outcomes and overall school cohesion (Carver-Thomas & Darling-Hammond, 2017; Toropova et al., 2021). Evidence suggests job satisfaction can positively reduce teacher turnover and increase teacher retention (Benevene et al., 2018; Calaguas, 2017; Gaias et al., 2018; Toropova et al., 2021). Professional development is found to impact the job satisfaction of teachers (Troesch & Bauer, 2017; Yuh & Choi, 2017; Neale-McFall et al., 2018; Gaias et al., 2018; Toropova et al., 2021).

Troesch and Bauer (2017) found secondary career teachers were more satisfied with their jobs than those early-career teachers. Toropova et al. (2021) revealed teachers that received more professional development had higher levels of job satisfaction. Gaias et al. (2018) implied the importance of teacher training and professional development for supporting their job satisfaction, especially for kindergarten teachers. The purpose of this qualitative study was to explore the lived experiences and perceptions of kindergarten teachers about the role of professional development in job satisfaction.

Theoretical Framework

The theoretical framework for this study was the situated learning theory which explains the acquisition of professional skills of an individual (Clancey, 1995) and which has greatly influenced existing views of teaching and learning (Korthagen, 2010). Based on the situated learning theory, Korthagen (2010) developed a three-level model of learning to analyze the friction between teacher behavior in the context of teaching practices. Korthagen reconciled the situated learning perspective with traditional cognitive theory, and this led to concrete implications for the pedagogy of teacher education.

Literature Review

Dou et al. (2017) described job satisfaction as a positive or emotional state resulting from an individual's appreciation of their jobs or experiences, influenced by the job itself and workplace environment that employees find rewarding, satisfying, frustrating, or unfulfilling Viadero's (2018). Yuh and Choi (2017) noted that the evaluation of teacher satisfaction includes cognitive and judgmental processes. This interpretation implies that by singularly measuring teachers' affective state, one is likely to find it challenging to address job satisfaction in the teaching practice. Although teachers' influence in student outcomes is widely acknowledged, the question remains whether teachers are content with their working environment, an aspect often overlooked (Torres, 2019).

Makovec (2018) found that teacher job satisfaction significantly contributes to their well-being because satisfied instructors are less vulnerable to stress or burnout. Dou et al. (2017) who established that job satisfaction improves teachers' satisfaction with higher instructional quality, coupled with better learning support for students. The evidence revealed that job satisfaction influences teacher turnover and their commitment to their job (Sheridan et al., 2019), which directly affects their ability to offer quality instructional guidance and support to learners.

Reeves et al. (2017) found that teachers' job satisfaction within the school environment was predicted by the availability of required resources, manageable workplace, and cooperation among colleagues. Similar results were reported by Sheridan et al. (2019) and Darling-Hammond et al. (2017) who established that a school environment characterized by opportunities for professional career development, leadership support, and staff involvement in decision-making significantly and positively influenced job satisfaction. Blömeke et al. (2017) also found that leadership support for teachers, professional development through training and mentorship programs, and feedback positively influenced teachers' job satisfaction. Teachers feel satisfied with their job if they perceive that their work environment provides an opportunity for continuous knowledge acquisition to adapt to the classroom's dynamic needs (Toropova et al., 2021). Liang et al. (2017) cautioned that a lack of professional growth programs among kindergarten teachers was the lead factor for teacher turnover and attrition. Klæijnsen et al. (2018) found that teachers' access to development programs influence their intentions to quit or remain in the teaching practice. In sum, research finds that environmental factors such as the availability of professional growth opportunities for teachers influence job satisfaction (Torres, 2019) retention, and attrition rates.

Method

This qualitative phenomenological study sought to explore the lived experiences and perceptions of kindergarten teachers about the role of professional development in job satisfaction. Data was collected via semi-structured interviews which were audio and video recorded, then transcribed for analysis.

Research Questions

RQ. What is the role of professional development in the job satisfaction of teachers in Texas?

SQ1. What are the lived experiences of the teachers in Texas about the role of professional development in enhancing their job satisfaction?

SQ2. What are the perceptions of the teachers in Texas about the role of professional development in enhancing job satisfaction?

Population and Sample

The general population of interest is kindergarten teachers from early education institutions. Using a purposive sampling technique, a sample of 11 kindergarten who had a minimum of three years of experience in early education were studied. A minimum three years of experience in early education was required to be included in the sample so that collecting their responses or lived experiences and perceptions will provide useful information and insights for conclusions. Table 1 illustrates the descriptive statistics of the sample group.

Table 1

Descriptive Statistics

Name	Sex	Years of Experience	Education
P1	Female	28	Lifetime teaching certificate
P2	Female	3	B.S. in Interdisciplinary Studies EC-6
P3	Female	18	Master's in Early Childhood
P4	Female	13	B.A in Reading
P5	Female	9	B.S. in Interdisciplinary Studies EC-6
P6	Female	10	B.A.in English
P7	Female	5	B.S. in Math
P8	Female	7	Master's in Early Childhood
P9	Female	31	Master's in Early Childhood
P10	Female	8	Master's in Progress
P11	Female	12	Master's in Education

Results

Several themes arose that related to the research question and sub-research questions in this study. Table 2 below illustrates how the themes and subthemes relate to the research questions.

Table 2*Themes Relationships to Research Question and Sub-Research Questions*

Theme	RQ	SQ1	SQ2
Positively Impacts Satisfaction	X	X	
Motivational	X	X	
Improves Skills	X	X	
Administration is Generally Accommodating	X		X
Barriers to Fully Realizing Benefits of Professional Development	X		X
Budgetary Constraints	X		X
Lack of Training Specificity	X		X
Training Required on Personal Time	X		X

Overarching Research Question

The primary research question sought to discover the role of professional development has in the job satisfaction of kindergarten teachers. Participants indicated that *professional development positively impacts satisfaction* by providing motivation and skills training that allows them to feel more engaged and confident in their jobs. Despite the fact that *administration is generally accommodating* of professional development requests, participants noted that there are *barriers to fully realizing the benefit of professional development*. These barriers include budgetary constraints, lack of training specificity, and training being required on personal time.

Professional Development Positively Impacts Satisfaction

All but one participant (P9) indicated that professional development positively impacted them in some way, whether it be through generally positive experiences, because they found professional development motivational, or because it helped improve their skills and understanding. P6 said, “I think more professional development would be great and I know it will benefit my students also. Yes, I can see how more professional development would make my job satisfaction higher.” P5 said something similar when she reported,

I can see how [professional development] should make me more satisfied as a teacher. I wish I could learn more to help my students achieve academic excellence, there is nothing more satisfying as a teacher than seeing my past students succeed.

In reverse, P1, P2, and P9 specifically said that they did not believe professional development impacted their satisfaction. P2 said, “Professional development doesn’t have a role in my job satisfaction because of the lack of [professional development].” While P2 indicated that professional development was non-existent in her career, neither good nor bad, P9 believed that the professional development she was offered may actively decrease her job satisfaction. She described this experience in the following way, “I do get frustrated having to sit through some of these and I get the feeling that most teachers feel the same way.”

Professional Development Helps Improve Skills and Understanding

Seven participants (P2, P4, P6, P7, P8, P9, and P10) indicated that the professional development they received improved their skills and understanding as teachers. Participants reported that professional development made them more aware of vulnerable student populations, improved their confidence in the

classroom, and engaged them in learning. P2 said, “The professional development that I’ve requested and had approved has helped tremendously. All the skills learned, and ideas given changes the way I teach, and the students learn.” P4 said, “Professional development is extremely important because it improves and facilitates my job. It has made me a better learner and I’ve learned new approaches.” P6 believed that professional development improved her ability to instruct her students and said, “I am grateful for any professional development given to me and I find that when I can connect to the subject then I am able to apply the training to my every day.”

Professional Development is Motivational

Three participants (P1, P3, and P11) indicated that they found professional development sessions to be motivational or refreshing, but not always positive. For P3, the professional development sessions she participated in improved her outlook and her job satisfaction. P3 indicated this by saying, “Each time I attend a professional development that I chose, it is like a pick-me-up and encouraging to start the next day or even the next year.” For P1 and P3, experiences with professional development were more mixed. P3 reported that professional development was motivating her to want to be a principal, but only because she believed she could manage the trainings better. She said,

I think this is why I would like to be a principal. I think that professional development should encompass more updates on teaching and learning and not district wants. As a principal I can help teachers get the training needed. It has led me to want to do more and make changes in my district.

Administration is Generally Accommodating

Seven participants (P1, P3, P4, P6, P7, P8, and P10) reported that their administration was generally receptive to teacher requests for professional development, and that they would fulfill those requests when possible. P7 said, “We are given the opportunity to request professional development and our administration is great at trying to meet our requests but with budget restraints it’s not always possible.” P8 said, “I have not been with my school long enough to make this request, but I don’t see my principal reacting in a negative way. She is pretty good at accommodating other requests.” P3 described the support from her administration in the following way,

We do get support from our administration. If they see that Professional Development is needed in a certain subject, such as technology, implementing differentiation, or classroom management, they will try and get the training for us at the campus level. Our district has offered surveys to teachers to ask about the professional development that is needed. The district will then set up professional developments throughout the summer for teachers to sign up for.

There are Barriers to Fully Realizing Benefits of Professional Development

While most participants indicated that professional development either positively influenced their job satisfaction, their motivation, or their skills and understanding, all participants also said there were barriers to fully realizing the benefits of their professional development. These barriers included budgetary constraints, time constraints, lack of training specificity, or that the training was required to be taken on their own, personal time. Table 3 below captures how many teachers reported experiencing each barrier.

Table 3*Participant Reporting on Barriers*

Theme	Number of Participants
Lack of Training Specificity	9
Budget Constraints	6
Training on Personal Time	4

Lack of Training Specificity

Nine participants (P1, P2, P4, P5, P7, P8, P9, P10, and P11) reported that the professional development they received was not specific enough for their teaching situation. In almost all cases, this was because the training was not related to early childhood education. Participants felt like training on school politics or education geared towards older students was not beneficial to them and their student population. P9 described this issue by saying, “I think there is too much professional development district wide that does not pertain to my job. A lot of it has nothing to do with early childhood. It’s boring and mandatory... much of it is not relevant.” Pointing to a concern about access to training that is relevant, she continued, “I do attend summer training that the service center provides which are excellent. But I and the other teachers pay out of our pockets to attend these trainings.” Like P9, P7 and P8 wished for more training that was geared toward early childhood education. P8 said, “I would like to see more opportunities of topics that can help me in the classroom. So far the professional development offered are district updates and not much that will help me with my students.” Similarly, P7 said,

I would like to see my district to have professional development for only kindergarten teachers. I don’t like being grouped with other grade levels because kinder is so different and our students have needs that the higher grades do not.

Budgetary Constraints

Six participants (P1, P2, P4, P6, P8, P10) indicated that budgetary issues prevented them from accessing professional development opportunities. P6 said, “I would like to see more money in the budget for us to attend professional development.” P2 said, “Finances are a big issue with our district when it comes to requesting specific professional development. So maybe have an account that is dedicated strictly to professional development.” Like P2 and P6, P1 also felt like her ability to access professional development was limited by budgetary issues. She said, “Administration support for professional development has to be in finding the funds to allow us to attend those classes that would help us help kids.”

Training Required on Personal Time

Four teachers (P3 P4 P6 and P9) indicated that they had to attend required professional development trainings during time that was not within their regular work hours, or for which they were not paid, which in their view influenced their satisfaction with the training and was a negative aspect of their jobs. P9 said, “I would like the district to pay for our development that the service center offers, even if it’s in the summer. Gas and mileage would be nice also and give more time in the school year for relevant training.” P4 described her situation by saying,

Education has taking so many turns lately, therefore the district is constantly changing and/or introducing new programs and software to meet these changes. This past year, we were introduced and expected to master Canvas and Zoom. Among other applications that we had to learn and incorporate in our instruction are Nearpod, Classkick, recording apps, Google apps and many

other. Not all, but a lot of these professional development hours took place at our own time. It usually took place after hours, or as prerecorded tutorials.

Teachers are expected to take many hours of professional development throughout the year. Like P4, P3 believed that professional development training should happen during work hours. P3 said,

Every kinder teacher is required to have 30 hours of Gifted/Talented initial training with a 6-hour refresher each year. In the past, this was offered face-2-face at the beginning of the year during our professional development days. Now, this is a required training offered online only on our own time. I feel that if it is a required training, it should be offered during our district professional days.

The essence of participant responses was that professional training that is not done during working hours leads to decreases in job satisfaction as some teachers may resent working without pay on days off. It is important to note that it's not the professional development they object to – it is the need to complete it during personal time.

Discussion

Overall, teachers were in alignment with what factors constitute the basic components of valid and purposeful professional development opportunities. Generally, teachers would like professional development that identify goals and practices that can be applied in their classrooms. However, it is clear that certain practices are getting in the way of both good professional development and thus job satisfaction. Given their testimonies, teachers would like professional development to be relevant to their specific needs and the needs of their students, timely as in during paid working time or compensated, and accessible.

Professional development programs increase job satisfaction because it helps to create a satisfying environment for educators to acquire skills and resources to address challenges within their work environment (Sprott, 2019; Merchie et al., 2018; Dou et al., 2017). In this study, several participants said that they perceived professional development sessions to be refreshing and motivational. Some participants agreed that professional development improved their outlook and job satisfaction. A majority of the participants also indicated that the professional development they received improved their skills and understanding as teachers. Participants reported that professional development made them more aware of vulnerable student populations, improved their confidence in the classroom, and engaged them in learning.

Still, the most important aspect to conceptualize is that professional development directly affects teacher motivation and its impact on students' outcomes. The research connected in the open-ended interviews led to data that directly spoke on the connection between professional development, job satisfaction, and motivation. The findings of this study led to confirmation of prior research that the knowledge professional development can impact job satisfaction negatively and positively, depending on multiple factors such as relevance to their teaching. The findings justify that professional development for teachers in learning environment is a significant tool for improving teachers' motivation, which can positively influence the academic outcomes of students. Again, these findings must be taken cautiously. The data argue that not all types of professional development increase teacher motivation and job satisfaction especially given criticisms about mandatory professional development.

A majority of the participants indicated that their administration was generally receptive to teachers' requests for professional development and that they would fulfill those requests when possible. In that view, a school administrator must prudently invest in developing teachers to instigate change and enhance learning and education quality. The study findings confirm that professional development programs which focus on providing administrative support, collegial support, and availing the required resources to teachers increase teachers' job satisfaction.

Participants were pointedly asked to describe their job satisfaction during the interview. In response, all teacher participants reported a good degree of professional satisfaction, especially as a result of the opportunities to interact with and teach their students. Teachers reported some grievances about their work experiences, but those did not color the love they had for their jobs. Participants were also asked to describe their perceptions of the role of professional development in job satisfaction. Most responded that professional development is good and necessary, but really only contributes to their professional satisfaction if the professional development was relevant to their students and gave them classroom tools they could actually use. To that end, the conclusion is that professional development must be deliberate, intentional, and relevant in order to positively impact teachers' job satisfaction.

While a majority of the participants indicated that professional development positively impacted their motivation, job satisfaction, skills, and job understanding, all the participants mentioned that there were barriers to fully realizing the benefits of their professional development. These barriers included time constraints, budgetary constraints, lack of training specificity, and the inability to conduct training during their contracted time. All the participants reported that the professional development they received was not specific to their teaching situation, and believed that training on school politics or topics geared towards older students was not beneficial to them or their student populations. A majority of the participants said that budgetary issues prevented them from accessing better opportunities for professional development or being as effective in the classroom as they were expected to become. Participants also reported that they had to attend the required professional development training during times that were not within regular work hours, or for which they were not paid, which they regarded as a negative element of their job. Lander et al. (2020) and Manduca (2017) echoed that effective professional development must happen when there is mutual participation, content is centered on curriculum needs and research-based practices, extended over a while to allow for active learning and practice, connected to the system and school-wide goals, follow-up activities including coaching with feedback opportunities, and additional development activities.

Implications of Findings

The findings of this research are imperative for individuals, teachers and students, schools, and policymaking levels. At the individual level, the outcomes of this research are significant in improving the knowledge and skills of teachers which will be reflected on the academic outcomes of students due to an improvement in job satisfaction and teacher motivation in the learning environment. The findings of this study confirm that that professional development, characterized by career growth opportunities, increases teachers' motivation and job satisfaction. Good professional development is found to increase job satisfaction and reduce employee turnover in school. At the policymaking level, the findings of this research should compel administrators to provide teachers with relevant, timely, and appropriate professional development programs more frequently.

Recommendations

Professional development in the school environment can increase teachers' skills, knowledge, and practice through skill sharing and transfer (Chai, 2019). To improve the outcomes of professional development for teachers, there should be a clear emphasis on the groups that will be attending the programs and their long-term goals (Sprott, 2019). There should be a robust platform for reflection and feedback.

Application-based and research-based practices often serve as models for educators to learn and enhance their teaching strategies and personal learning. When the best model and effective practices are implemented, learners are more likely to reap the most benefits. The most suitable practices must be modeled for teachers so that their learning process can be optimized during the professional development programs.

To improve the nature of professional development for educators, goal setting must be integrated as an imperative aspect of the process (Manduca, 2017). When professional development programs are being facilitated, the goal should be specific to the audience. Most importantly, whether the goal is for a specific group of teachers or a school-wide initiative, the goal should be measurable, specific, achievable, timely, and realistic. To that end, data collected in this study revealed that one of the primary reasons teachers are frustrated with professional development is lack of relevance. In some instances, professional development programs are a significant financial investment by the providing school district. The findings of this study highlight the need for more strategic and intentional decisions about what professional development programs will have the most direct and relevant impact on teachers. This also supports the need for feedback and evaluation. Rather than to spend limited school district dollars on undesirable trainings, administrators must carefully consider the specific needs of their teachers and students in order to bring professional development that will have the most direct and relevant impact.

Conclusion

A contributing factor to high teacher turnover rates is the contention that teachers are not well-supported in their professional roles. The findings of this study advance knowledge and contribute to the scholarship of teacher turnover, teacher education, and professional development for early education teachers. In essence, professional development is found to impact the job satisfaction of teachers. To improve professional development sessions and reap its benefits, schools must understand what teachers need. Job satisfaction is also related to the overall well-being of teachers and their students as well as school cohesion (Carver-Thomas & Darling-Hammond, 2017; Toropova et al., 2021). As such, the findings of this study benefit teachers, particularly kindergarten or early education teachers, as the increased professional development opportunities could improve their overall well-being and persistence in the field.

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EMBEDDING SIMULATED LEARNING OPPORTUNITIES FOR TEACHER CANDIDATE PEDAGOGICAL DEVELOPMENT THROUGHOUT A PANDEMIC

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Abstract

COVID-19 caused K-12 schools across the United States to close starting in the spring of 2020, which cascaded back to educator preparation programs (EPPs), greatly reducing and altering the clinical practice experiences of teacher candidates. This continued into the 2020-21 academic year as schools in many communities remained closed for in-person instruction (Goldhaber & Theobald, n.d.). The pandemic directly impacted the extent to which teacher candidates gained any experience in the 'practice' of teaching due to these school closures. Lessons learned from the pandemic have informed how practice opportunities for teacher candidates are provided and must be modified. Technology, through use of a simulated learning environment, is one way that can afford teacher candidates practice opportunities regardless of closures or limited in-person opportunities and it is worthy of consideration across EPPs.

Keywords: *pre-service teacher, simulated learning, technology*

Introduction

The future of teacher education stands on the shoulders of effective preparation and learning experiences that allow teacher candidates to become prepared to work with all students in today's classrooms, however, data indicate that fewer individuals are choosing to go into the education profession, with significant decreases noted in EPP enrollment over the past decade (Carver-Thomas & Darling-Hammond, 2017; Sutchter et al., 2016). It is suspected that within the next few years, there will be a deficit of more than 100,000 teachers annually (National Center for Education Statistics, 2020; Sutchter et al., 2016). The COVID-19 pandemic exacerbated another layer of urgency in that educators have had to triage students' academic and social skills due to the vast variance in instructional time that occurred over the past two years in attempts to get students back on level. Furthermore, teacher candidates who were actively seeking certification during the COVID-19 pandemic had their clinical student teaching experiences cut short when schools across the nation shut down and instruction moved online. It is estimated that more than 80% of EPPs drastically reduced or removed student teaching requirements (Goldhaber & Theobald, n.d.). Implemented pedagogies instead shifted to that of asynchronous and synchronous virtual teaching methodologies, many of which teaching candidates had not received any preparation to implement effectively.

The problem compounded and persisted when many schools continued offering virtual instruction during the subsequent 2020-21 school year. This move in essence barred teaching candidates from enacting and implementing best pedagogical methods learned in their EPP because they had no classroom

available to them (Porath & Myers, 2021). Rather, teaching candidates delivered instruction in conjunction with mentor teachers through virtual environments, but used remote, online practices that many had not learned or integrated prior to the student teaching experience. A final resulting complication from the COVID-19 shutdown was revealed in the recent 2021-2022 school year, when schools began to re-open. While many clinical student teaching placements had gone back to normal, due to the limited early field placements in the years prior, this was often the very first opportunity for teacher candidates to practice their newly emerging pedagogical practices in authentic classroom environments which results in limited preparedness on day-one (Griffin, et al., 2020; Sasaki et al., 2020).

As efforts to improve EPPs and the learning experiences of teacher candidates continue in a mid-COVID landscape, so does the need for increasingly innovative ways to incorporate such involvement into program coursework. EPPs must embed longitudinal and scaffolded learning opportunities with technology that allow for repeated practice of high impact pedagogical strategies so that new teachers entering the field can effectively and efficiently implement teaching strategies that incorporate data collection/analysis in order to make better informed instructional decisions that exemplify differentiation and positively impact students' academic and social-emotional progression. EPPs must also examine a variety of outcome variables associated with effective teacher performance and assess teacher knowledge and instructional experiences in order to broaden their teaching skills (Landon-Hays et al., 2020). It is essential that repeated practice opportunities start at the beginning of an EPP and continue through completions of a program so that candidates have numerous opportunities to gain fluency in pedagogy across various settings with diverse learners, gain explicit feedback and obtain frequent and sustained support from faculty and teacher mentors, and can engage in the practice of self-reflection (Birman et al., 2000; Garet et al., 2001). One way to do so is to mindfully embed repeated practice opportunities using a simulated learning environment as described in below.

The Urgency of Teacher Preparation Experience Alignment

Given the extreme shortage of educators across the United States, the continued projection of teacher shortage through 2025, and the increasing uncertainty and unavailability of early classroom field experiences for clinical student teachers, it is crucial that EPPs provide teacher candidates with early and intentional repeated practice opportunities in teaching methods, implementation of strategies, opportunity to receive focused feedback on teaching practices, and opportunities to refine their teaching so that they are successful and remain in the classroom. When teacher candidates are well-prepared in both content and pedagogy, it allows for a vast difference in classroom effectiveness, but also whether candidates enter into and stay in the teaching field. In efforts to improve the alignment of coursework and field experiences throughout EPPs, Thomassen and Rive (2009) suggested that it may be necessary to create simplified contexts where teacher candidates can gain initial proficiency with target skills. Transfer of practice from more simplified teaching tasks and situations to actual classrooms depends upon the extent to which practice opportunities match the authentic contexts in which the learner applies the information (Landon-Hays, Peterson-Ahmad, & Frazier, 2020). One vision that EPPs may propose to mitigate some of the challenges that new teachers may encounter when entering their first classroom and as an effort to promote retention is to utilize innovative platforms, such as a simulated learning environment.

A simulated learning environment is a piece of technology that can be defined as the combination of real and virtual worlds and provides users with a sense of real-life presence. One example of a simulated learning environment, Mursion, is powered by a blend of artificial and human intelligence that facilitate interactions between avatars and the participants (e.g., teacher candidates) by immersing them

in learning how to teach based on real-time avatar responses. The avatars portrayed in Mursion, embody characteristics typified by personalities that would exist within any classroom environment and represent an array of student ages, demographics, and personalities (Peterson-Ahmad, 2018). During a simulation, the avatars and participants engage in interactions to practice various strategies by providing real-time verbalization of teaching or other practice-based interactions (e.g., parent discussions, etc.) in a classroom or other appropriate setting with proportionally sized avatars that provide immediate responses (Dieker, et al., 2014). Within the Mursion environment, various levels of complexity (e.g., levels of classroom behavior, avatar response rates) can be controlled depending on the year of the teacher candidate within the EPP (Dawson & Kraft, 2013). This variability affords EPPs the flexibility needed to individualize practice opportunities specific to the specific needs of each teacher candidate.

Research has demonstrated the capacity that Mursion has to produce significant and lasting changes in the increased acquisition of specific pedagogical skills (e.g., academic strategies, behavior management strategies, etc.) through rehearsal and reflection (Landon-Hays, et al., 2020; Peterson, 2014; Peterson-Ahmad, 2018) and provide change in human behavior, including specific skill development in instructional strategies, student engagement, and classroom management (e.g., Dawson & Kraft, 2013; Elford, et al., 2013; Garland, et al., 2012; Hudson, et al., 2019; Landon-Hays, et al., 2020; Peterson, 2014). When EPPs utilize a technology such as a simulated learning environment throughout the duration of an EPP program, teacher candidates have repeated opportunities to practice pedagogical skills that can deepen knowledge and provision of teaching and improvement of classroom practices across repeated trials that allow for the increased transfer of learning to practice over time (Maheady et al., 2007). A simulated learning environment, like Mursion, can serve as a conduit in learning various pedagogical skills, prior to required practicum or student teaching requirements. It can also allow EPPs to strategically plan and embed experiences into specific coursework so that practice of specific skills and pedagogical skills can enhance strategy development in academic and/or social-emotional teaching skills. Additionally, EPPs can support the use of a simulated learning environment by aligning data (e.g., certification test trends of recent graduates, course assignment trends), standards, and course objectives, to hone in on specific areas of teacher candidate need so that the simulations match what teacher candidates need for refined training and practice.

Implementation Considerations for a Simulated Learning Environment

Today's classrooms expect that all teachers can effectively and efficiently support students of varying abilities, including students with disabilities (DaFonte & Barton-Arwood, 2017). EPPs are responsible for providing learning opportunities that focus on strategies that teach pre-service teachers how to facilitate such practices, however, this cannot be done without intentional use and practice across the entire duration of an EPP. Teacher candidates can benefit from purposeful, repeated practice opportunities in Mursion where mistakes can be made and explicit feedback can be given prior to practicing a particular skill again and make adjustments based on immediate feedback; something that cannot always be guaranteed in a traditional classroom setting.

As EPPs consider the facilitation and use of a simulated learning environment, like Mursion with their teacher candidates, it is advised to be strategic in this implementation (see Table 1). While implementation will look different for each EPP, there are commonalities in advice that can be shared for increased success. First, teacher educators need to encourage their candidates to take learning risks and fully embrace each simulated learning environment session with the avatar students just as they would a classroom of 'real' students. When this is done, a more authentic experience will occur and allow for

increasingly explicit feedback to ensue. Secondly, teacher educators should take time after each simulation to provide explicit feedback related to their candidates' teaching pedagogy so that improvements can be made for future simulation, role-play, or practicum trials. When candidates receive explicit feedback, simultaneously use self-reflection as a planning and goal setting tool to think about how to make these improvements for the future can be utilized. Explicit feedback coupled with the opportunity for self-reflection offers significant potential teacher candidates to deepen their knowledge in teaching and improve classroom practices' (Maheady et al., 2007). Moreover, when teacher candidates utilize feedback and use it to improve and increase implementation of teaching strategies that best support their classroom needs, it directly impacts the students in which they serve, including children with disabilities (McCray et al., 2017).

Table 1

Example of EPP Simulated Learning Environment Implementation

Step 1	Secure funding for simulated learning environment resources and acquire technology needed technology for implementation.
Step 2	Conduct data-dives to determine specific courses and course objectives, assignments, and areas of specific need (e.g., exit surveys, exam trends) where a simulated learning environment would best serve as a strategic practice tool for teacher candidates.
Step 3	Schedule and run simulated learning sessions while simultaneously providing explicit feedback and having teacher candidates engage in self-reflection with goal-setting after each session. Faculty evaluate each simulated session and modify as needed to best meet the needs of each teacher candidate.
Step 4	Start over with Step 2.

Other Considerations for Using a Simulated Learning Environment

On a more practical level, it is important for EPPs to plan and implement purposeful simulation experiences that ensure that teacher candidates get a wide variety of practice related to pedagogical implementation that are staggered and differentiated according to preparation experiences and candidate readiness. For example, candidates could first experience a simulated learning environment by establishing teacher presence and practicing clear and concise communication skills in a mini-lesson. Subsequent experiences could focus on one or more advanced techniques such as delivering a complex content-based lesson, practicing formative assessment, asking open-ended questions, allowing for wait time, using techniques that actively engage learners, and effectively managing various behaviors in a classroom. More complex simulated learning environment sessions could implement an unknown scenario where a teacher candidate must work to quickly adapt to whatever classroom situation arises such as disruptive behavior or other urgency.

EPPs should also be attentive to the variety of non-pedagogical aspects of teaching that candidates will also encounter on a day-to-day basis, such as conducting a parent-teacher conference, participating in an Admission, Review, and Dismissal (ARD) meeting for students receiving special education service, and facilitating campus data review meetings. These experiences can also be purposefully planned and integrated where possible into EPP coursework and field-based experiences and should strategically involve teacher education faculty as mentors prior and concurrent to formal classroom experiences.

Finally, simulated learning environments can be used as a supplement in helping teacher candidates refine and practice specific techniques prior to or in combination with school-based experiences. For example, simulations may focus on training explicit teaching strategies within a specific content area (e.g., explicit instruction related to vocabulary), or complimentary simulations may coincide with school-based field placements. For example, with information gleaned from self-reflections and mentor teacher feedback from their school-based placement, teacher candidates could then come into the simulated learning environment and teach the same mini-lesson to the avatars where they work on targeted skills such as questioning, probing, wait time, redirection, etc. This allows teacher candidates additional opportunities to practice specific skills in a low-stakes environment where they can truly reflect and improve on such skills, while receiving real-time feedback from a faculty member or the opportunity to try a teaching skill again. Feedback, in any environment, is an important predictor of teacher effectiveness through the reflection and refinement practice and a simulation learning environment can effectively facilitate this opportunity (Gün, 2010).

Conclusion

The preparation of future teachers is certainly a multi-faceted topic complicated by the urgency to attract new teachers to the profession, effectively prepare them for their first classroom, ensure they can enact sound pedagogical practices, and ultimately retain them in the field. Unfortunately, early field experiences have been severely limited over the past two years resulting in teacher candidates who lack sufficient development and opportunities to test out their newfound teaching knowledge. Simulated learning environments such as a simulated learning environment provide an opportunity for EPPs to fill in these gaps to guarantee that the clinical student teaching experience is not the first time a candidate implements a pedagogical teaching strategy. However, these experiences must be planned, purposeful, and effectively aligned with EPP standards for teaching and learning to maximize its effectiveness.

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PERCEPTIONS OF ALTERNATIVE CERTIFICATION PROGRAMS' IMPACT ON THE TEACHER SHORTAGE IN TEXAS

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Abstract

Alternative Teacher Certification Programs have aimed to address teacher shortages for over a decade, yet the demand for teachers remains high. Teacher candidates enter Alternative Certification Programs and may be placed in classrooms of undesirable positions and insufficiently prepared for the realities of the classroom such as diverse learners and behavior challenges. Due to that lack of sufficient preparation and lack of ample support, the result is teacher frustration and high teacher attrition rates. Alternative Certification Programs, commonly known as fast track programs, aim to address high need specialty areas, but the question of quality tenured educators is of utmost concern for the survival of the education field. This qualitative study sought to determine the perceived impact of Alternative Teacher Certification Programs on the teacher shortage in South Texas from the perspective of hiring principals. The study aimed to understand whether school administrators consider alternative certification programs as appropriately preparing and supporting teachers for long-term careers in the most high-need areas.

Keywords: *alternative teacher certification program, teacher shortages*

Introduction

Education has been faced with many challenges that include changes in policy, issues with funding, and teacher recruitment and retention (Bowling & Ball, 2018). Teacher shortage has long been a significant concern in education (Coffey, et al., 2019). Across the nation, unfilled teaching positions in multiple subjects and grade levels persist each school year, serving as an example of dire need. The high need for teachers may soon become a bigger problem. The looming retirement of the baby boomer generation will likely result in the loss of experienced teachers adding to the significant need for teachers (Coffey, et al., 2019). This is concerning as the current educational field is leaving districts under staffed and students underserved.

This qualitative study sought to determine the perceived impact on Alternative Teacher Certification Programs on the teacher shortage in Texas from the perspective of hiring principals. The study aimed to understand school administrators' perception of alternative certification programs as appropriately preparing and supporting teachers for long-term careers in the most high-need areas.

Research finds inconsistencies in teacher preparation programs, especially between traditional undergraduate programs and ACPs. ACPs must be studied to determine if they are appropriately preparing teachers for the complexities of the classroom in an effort to address the teacher shortage issue. There is a gap in the literature to inform of the principals' perspective of teachers coming from ACPs. Principals that have worked with teachers coming from ACPs have valuable information about these teachers. The principal is responsible for hiring teachers on their campus. School administrators are also responsible for evaluating teachers. They have firsthand knowledge and experience in supporting new teachers. This is the reason they were the target for this study. It is important to consider the principal's perspective of teachers coming from ACPs, as there is much to gain from their perspective. The results of the study shed light on the strengths and weaknesses of pre-service teacher preparation programs equipping school districts with information needed to best plan for in-service support.

Research Question

The following research questions was used to guide the study:

- RQ 1: What is the impact of alternative teacher certification programs on teacher shortage as perceived by public school principals?

Theoretical Framework

For the purpose of this study, social constructivism was the most appropriate interpretive framework. Social constructivism attempt to understand the world in which we live by understanding shared thoughts and assumptions (Creswell and Poth, 2018). The theory emphasizes the importance of culture and interaction with the environment as factors that develop one's cognitive abilities. As the study investigates the work place, it targeted the views and perspectives of administrators. The use of this framework aided in a better understanding of administrative decisions based on their experiences and the circumstances in the work place.

As the research explored the perspectives of the principal, person-oriented theory applies. James Macdonald (1995) is known for his perspectives on person-oriented theory (Macdonald, 1995). Macdonald encourages educators to question their assumptions and aspire to more worthy goals and strives to challenge educational leaders to rethink their basic assumptions and reconceptualize their field (Glatthorn et al., 2016). The person-oriented theory works well with the study as it explores the thinking of educational leaders. It allows leaders to self-reflect and consider their choices. As the study investigates educational leaders' decisions, it easily aligns with the purpose of the study.

Literature Review

Research has showed that classroom management decisions of teachers have a significant impact on pupil achievement (Marzano 2003; McDonald 2010). Practical experiences allow future teachers the opportunity to learn from experienced teachers' effective classroom management practices and implementation, and appropriate teacher-pupil relationships for successful classroom management (Nelson et al., 2000). ACPs allow an easy transition for those that have already worked in other sectors. Although held to the same curriculum standards as traditional EPPs, ACPs are able to meet the required training in fewer credit hours.

Alternative certification programs have shown promise in alleviating teaching shortages and educator quality issues (Koehler, et al., 2013). They provide qualified teachers from diverse ranges of experiences to meet the need for student academic achievement in low-income schools (Heineke & Preach, 2013). programs in many states (Hohnstein, 2017). ACPs offer support through coursework, test preparation, and mentoring through on the job supervision. Still, there is little corroboration regarding the effectiveness of a particular pathway to teaching certification in regard to a teachers' impact on student learning (National Research Council, 2010). Further, although these programs are not new, there is not much research on the effectiveness of ACPs in addressing teacher shortages. Since there is no national standard for these types of programs, the outcomes are seen in the variations of quality, coursework, support, and performance (Antonetti, 2018). Beyond established minimum standards for teacher preparation, there is little consistency in the framework of these programs (Antonetti, 2018). These inconsistencies leave principals unprepared to provide professional development support for pre-service teachers. ACP teachers have limited and condensed pedagogical preparation relying too heavily on full-time teachers who themselves are overwhelmed with little time to provide adequate support for mentorship (Smith & Evans, 2008).

Research suggests that teachers coming from ACPs have less impact on student achievement compared to those coming from traditional teacher certification programs (Heineke & Preach, 2013). In ACPs, candidates for teacher credentialing do not complete clinical teaching, commonly known as student teaching, as do traditionally prepared teachers. Instead, they complete experiential learning on the job in the form of an internship (Heineke & Preach, 2013). Although a benefit because intern teachers are employable, the reality is that they are still fulfilling program requirements of coursework and require mentoring to be successful. They are not fully prepared for the classroom. The lack of a more guided and mentored clinical experience creates a gap in teacher abilities (Heineke & Preach, 2013). Some research suggests that considerable numbers of ACP teachers lack an understanding of pedagogy, classroom management, instructional strategies, and student's social and academic development issues (Zhang & Zeller, 2016). The less preparation a teacher has, the less likely there will be significant gains in student achievement (Linek, et al., 2012).

Perhaps of greater concern is research that finds that ACP teachers are not prepared for teaching the wide range of student abilities in their classroom. Differentiated instruction is necessary to meet the needs of all students. Students have a range of abilities and disabilities all which must be met and equitable serviced by the teacher. Lack of relevant training to meet those needs can be a challenge for beginning teachers. A huge range of abilities in one classroom is challenging (Muijs et al., 2012).

ACP teachers are unprepared for critical job requirements such as lesson planning and grading papers (Heineke & Preach, 2013). These teachers become stressed, burnout, and isolated. The programs do not have sufficient time to prepare teachers for all aspects of the job prior to teaching. ACP teachers must fulfill their job requirements and complete coursework for the program. These programs are not considerate of the demanding schedule of a first-year teacher (Heineke & Preach, 2013).

Research has found evidence to support the notion that university or traditionally certified teachers outperform alternatively certified teachers however there are many advantages for ACP teacher including work experienced teachers entering the teaching profession, addressing teacher shortage in high need areas, and combating general teacher shortages in general (Uriegas et al., 2014). When APCs

provide continuous professional development and support for teachers, it is seen as more beneficial than a semester of student teaching experience (Uriegas et al., 2014).

Method

The study sought to determine the impact of alternative teacher certification programs on teacher shortages from the perspective of Texas principals. The qualitative component of the study utilized data collection through personal in-depth interviewing by engaging participants in a dialogue to determine the effectiveness of the alternative certification teachers from public school principals.

Sample

The principals that were selected to participate in this study were from South Texas school districts. Eight principals voluntarily participated in the research study. The participants included five elementary principals, one intermediate principal, and one high school principal. All participants were from South Texas school districts.

Data Collection

All of the participants willingly agreed to participate and provide their input for this research. A semi-structured interview protocol was used. During the interviews, reflective journaling assisted in documenting the researchers' ideas and personal reactions throughout the fieldwork (McMillan & Schumacher, 2010). After the interview, the audio recordings were transcribed. During data transcription, the researchers used the data collected and convert them into a format that will facilitate analysis. While analyzing the data, small pieces of data was identified that is capable of standing alone that supports a finding (McMillan & Schumacher, 2010). These findings are referred to as segment that assist in finding patterns such as language used, behaviors, strategies or anything associated with the aim of the study. This process assisted in the interpretation of the data to make connections and to explain the results. The researchers looked for themes to emerge as the interview data is analyzed. The data was organized in emerging classifications or themes.

Results

Teacher Attrition

Participants were asked their perception of contributors to teacher attrition (see Table 1). Principals Three, Four, and Seven felt that campus climate was a factor. Principal Two and Four responded with leadership. Principals Three and Six responded with salary. Principals Six and Seven responded with lack of support. Principal One also discussed burn out, pressure from the state, and pressure from administrators. Principal Two spoke on consistency, continuity, curriculum procedure, structure, and systems in place. Principal Four talked about behavior management and being overwhelmed. Principal Five discussed lack of preparation and challenges in the classroom. Principal Six spoke on better job opportunity. Principal Eight talked about inconsistency with campus and district leadership, and explained "The district has dealt with many leadership changes across the district in a short amount of time that have included changes at the administrative level through campus level."

Table 1

Theme that emerged from principal responses to question 4.

Interview Question	
What do you perceive to be the contributors to teacher attrition?	
Theme	Total
Campus Climate	3
Leadership	2
Salary	2

Principals were asked their perception of strategies that aid in teacher retention (see Table 2). Principals Three and Five responded with leadership and school culture. Additional responses included school climate, respect, communication, curriculum, systems, and consistency from Principal Two, instructional coaches, and shared decision making from Principal 4, new programs from Principal Five, calendar from Principal Six, and TASBE study from Principal Eight. Principal Five shared information about a new grant that they had received that provided a true mentorship for new teachers. Principal Five explained that, “There were specific requirements that must be complied with for the grant.” The principal further explained that the grant includes, “required meeting hours per semester along with specific criteria ensure that new teachers are being provided with the assistance and support that is needed to be successful.”

Table 2

Theme that emerged from principal responses to question 5.

Interview Question	
What do you perceive to be strategies to aid in teacher retention?	
Theme	Total
Leadership	2
Campus Climate	3

Alternative Certification Program

From this point in the interviews, all questions were ACP specific. The principals were asked their perception of teachers prepared by ACPs. In particular, principals were asked how well they were prepared for things such as classroom management, differentiated instruction, and effectively designed instruction (see Table 3). Classroom management was indicated as areas of need by Principals One, Three, Five, and Six. Principal One shared that, “Most new teachers regardless of the program in which they are coming from struggle with classroom management.” Principal Five indicated that, “ACP teachers have no experience with classroom management.” In regard to differentiated instruction, Principals One, Three, Five and Seven indicated concerns. Principal Two explained, “These teachers come in with the basics, but struggle with implementation.”

Table 3

Theme that emerged from principal responses to question 8.

Interview Question	
What is your perception of the quality of teachers prepared by alternative certification programs?	
Theme	Total
Classroom Management	4
Differentiated Instruction	4

The next topic asked about was clinical or practice teaching experience for pre-service teacher (see Table 4). Principals Two, Four, Five, Seven, and Eight felt that it is a very important component needed for new teachers. Principal Two indicated that, “The experience allows for observation time with a phase-in process to the job.” Principal Five shared that, “It is seen as an advantage.” Principal Six expressed that, “This component has been more beneficial in this time with all of the changes to instruction as result of COVID-19. The student teachers had to learn along with the teachers on how to provide virtual instruction.” Principals Six and Eight described practice teaching experience as an opportunity to determine whether teaching is the profession that they want to work in. Examples were provided by both principals of experiences where at the end of student teaching experience, the student teacher decided that the job wasn’t for them. Principal Seven saw the lack of practice teaching experience as “having a gap in preparation.” The principal indicated that, “the experience prepares them to be able to walk into the classroom ready to work.” For this reason, Principal Seven sees this opportunity as an asset to the new teacher.

Table 4

Theme that emerged from principal responses to question 9.

Interview Question	
What is the significance of clinical or practice teaching experience for pre-service teachers?	
Theme	Total
Very Important	5
Opportunity to determine career choice	2

Principals were asked their perceptions of how things differed with teachers earning their certificate via an ACP versus a more traditional certification route. Principal One commented that, “ACP teachers are typically more motivated and are usually older.” Principal Eight indicated that, “ACP teachers need more help in general.” Principal Three felt that, “ACP teachers don’t get the in-depth training where those coming from traditional programs are ready for the job.” Principal Four expressed that, “Those coming from traditional programs have more background strategies and need less support.” The principal also went into the details of the assistance that ACP teachers needed such as setting up a classroom, classroom management, and planning. Principal Eight explained that, “Those coming from a traditional program had more understanding of theory, had reasoning, and rational. ACP teachers were immersed with no understanding of the reasoning behind things.” The principal also indicated that, “As a result of COVID-19, all new teachers lack skills as they were unable to attain the typical preparation experiences. COVID-19 required instruction to change to virtual means. Some of the face to face requirements were altered to accommodate the mandate changes limiting in person exposure.”

Principals were asked what additional trainings they feel are needed for ACP teachers. (see Table 5) Principals Two, Three, and Six indicated that classroom management is an area of need, in addition to a mentorship. Principal Eight stated that, “A general understanding or overview of the daily teacher requirements are needed such as the programs that are used on a daily basis.” Principal Two mentioned, “Legal issues that are a concern such as leaving students unattended.” The principal also emphasized “unpacking the TEKS” as an area of importance. Principal Four discussed the importance of, “Appropriate communication with parents, students, and other professionals.” Principal Three indicated that, “Content training for reading is needed.” Principal Three recommended, “Observations are needed during the first semester to allow an opportunity to observe seasoned teachers in action.” Principal Two expressed the importance of “knowing how to approach different scenarios that may arise.” With virtual instruction in place, Principal Five indicated that, “There needs to be new trainings to include the new requirements for the job.”

Table 5

Theme that emerged from principal responses to question 11.

Interview Question	
What additional training do you believe ACP teachers need to prepare them to teach in K-12 schools?	
Theme	Total
Classroom Management	3
Mentorship	3

Perceptions were asked regarding the impact of ACPs on the teaching profession (see Table 6). Principals One, Three, Four, Five, and Eight commented that they have had a positive effect on the teaching profession. Principals Four and Five indicated that they have had a positive impact on teacher shortage. Principal One explained that, “ACPs have allowed an easier way to become a teacher.” Principal Two described ACP teachers coming from different professional as a “means of providing the concepts differently.” It was described by Principal Two as, “field experience in other occupations preparing them in different ways for the job.” They were seen to have “good communication skills, be more flexible, very understanding, and team players.” Principal Three described ACPs as, “providing more diversity among teachers.” Principal Seven explained that, “More ACP teachers has caused more instructional leadership in schools.” Principal Eight stated that, “The level of professionalism is not what it used to be. Sometimes ACP teachers are not of the same caliber as others.”

Table 6

Theme that emerged from principal responses to question 12.

Interview Question	
In your opinion, what impact has alternative certification programs had on the teaching profession?	
Theme	Total
Positive effect on the teaching profession	5
Positive effect on teacher shortage	2

Finally, principals were asked what they felt educator preparation programs should require to earn a certificate to teach in Texas (see Table 7). Principals One, Three, and Six felt that a Special Education requirement is necessary. Principals Seven and Eight felt that pedagogies and content knowledge are needed. Principals Three and Four felt classroom management is important in addition to an overview of programs that districts commonly use. Differentiated instruction was discussed Principal Two, along with diverse learners. Principal Five emphasized, “An intense mentorship that has specific requirements” as important. Sheltered instruction was mentioned by a Principal Three. Principal Five expressed that, “Field experience was a necessary component.” Principal Five also described how lesson planning has changed significantly over the years. “It is far more complicated than it ever was. There are multiple sources of data and resources that must be included in lesson planning”, explained Principal Five. Principal Six indicated that, “A Special Education and 504 manuals are needed for all teachers along with an understanding of Special Education Law.”

Table 7

Theme that emerged from principal responses to question 13.

Interview Question	
In your opinion, what should an educator preparation program require to earn a certificate to teach in Texas?	
Theme	Total
Special Education	3
Pedagogies	2
Content Knowledge	2
Classroom Management	2

Overarching Themes

Principals identified various factors that contribute to teacher attrition such as leadership, salary, campus culture, and lack of support. They identified factors that attribute to teacher retention as leadership and school culture. Overall, principals identified areas of need for ACP teachers but did not identify any significant causes for concern. Classroom management and differentiated instruction were identified as areas of need by Principals One, Three, and Five. Principal Two, Four, Five, Seven, and Eight did feel that practice teaching experience is important for new teachers. Additional trainings or supports that were recommended were classroom management by Principals Two, Three, and Six, and a mentorship by Principals One, Three, and Six. Principals One, Three, Four, Five, and Eight, do feel that ACPs have positively impacted teacher shortage. Some components that principals feel that is important for new teachers are classroom management by Principals One, Three and Four, special education by Principals One, Three and Six, and field experience and pedagogy/content knowledge by Principals Seven and Eight.

Discussion

The findings from the study revealed that principals believe teachers coming from ACPs are positively assisting with teacher shortage. Principals do believe that ACP teachers do need additional support. Principals One, Three, Five, and Six felt areas of need included classroom management. Principals One, Three, Five, and Seven indicated differentiated instruction was an area of need.

Effectively designed instruction was identified as an area of need by Principals Two and Eight. It is important to note that principals didn't see these areas of need as being any different from teachers coming from university-based programs. Although Principals Two, Four, Five, Seven, and Eight see clinical experience as an advantage to new teachers, there were no negative perceptions of ACP teachers knowing that this component is lacking from the program.

Principals did believe that practice teaching experience is an important and beneficial component for new teachers. Principal Eight discussed the possibility of attempting to build in opportunities during the school day to gain some observation experience while on the job. The principal emphasized that the first semester was the most important time for the observations to take place. Practice teaching experience was discussed as an invaluable component that assists in preparing new teachers for the classroom. It allows new teachers an opportunity to learn from experienced teachers. The Texas Education Agency requires public schools in Texas to utilize the Texas Teacher Evaluation and Support System (T-TESS) for teacher appraisals. The appraisal is designed to assess teaching proficiency that provides evidence-based feedback by the administrator. The T-TESS creates a working relationship between the administrator and the teacher to support efforts to improve instructional quality in addition to student performance. Through this process, appraising administrators are allowed to identify the teachers' areas of need to create a plan of action to support the teacher in an effective manner. Regardless of which program teachers are coming from, schools are addressing their needed in an individualized manner.

Principal Five described a grant funded mentorship program requiring for specific minutes weekly working with experienced teachers in addition to observation time. There were not prior requirements that included minutes of working cooperatively nor observation time. Mentorships varied significantly depending on the mentor and the mentee. As the grant funded program is rigorous and specific, it allows for consistency in district wide mentorships for new teachers. Aligning teacher needs through T-TESS, principals have the ability to create a plan to address any shortcomings that teachers may have. T-TESS has required school administrators to be directly involved with the monitoring and support of teachers.

The study's findings provide support of previous research findings on ACPs. As research has shown that ACPs have assisted with teacher shortage, this remains to be true. Principals do feel that ACPs are addressing teacher shortage by getting teachers in the classroom. In some cases, they are finding themselves in the classroom in a shorter period of time compared to others. Some concerns with ACPs that have been discussed through previous research include differences and deficiencies in the quality of preparation, lack of clinical experience, needed mentorship, and lack of important foundational professional knowledge. The findings of this study support these to be continued concerns of principals. Principals are aware of these shortcomings and must prepare to appropriately address these teacher needs. They must be aware of available resources to appropriately support ACP teachers. These supports differ from district to district as described by the principals in this study.

Interestingly, Principal One indicated that ACP teachers are usually older and have more work experience offering different types of skills than those coming directly from a university-based teaching program. Research should be conducted to determine the common ages of those coming from ACPs. Age should be considered to determine if there is a difference in teaching ability when entering the education field at a later age. Additional research should be conducted to determine if there are different

benefits to hiring those ACP teachers than have had other employment experience outside of education prior to teaching. The principal also expressed the non-traditional skills that older ACP teachers have attained through employment outside of the education field. These skills included communication skills with parents and student along with outside the box thinking. Principal One felt that these ACP teachers come into the job with more dedication to the job. It should be explored to determine if there are benefits to hiring those coming from other occupations. This information would be beneficial to principals to consider other factors that may be favorable when hiring ACP teachers.

More research on the effectiveness of Alternative Certification Programs continues to be needed as these programs continue to be in demand. This study could be easily replicated in a quantitative approach. As quantitative approaches seek to analyze numerical data, revisions can be made to accommodate this approach. The interview questions could be used allowing participants to respond with the use of a Likert scale to identify levels of perceptions. The approach may allow for more principals to participate as it may take less time to provide responses compared to an interview.

The findings of the study support research that suggests ACPs are successfully assisting with teacher shortage. The findings also suggest a need for support for ACP teachers. The data revealed areas of need as classroom management and differentiated instruction. Knowledge of these needs can provide information for ACPs to revise their programming to incorporate instruction on classroom management and differentiated instruction. The information can be beneficial to principals that are hiring ACP teachers. It provides information to allow preparation for accommodating for these shortcomings once in the school setting.

Principals expressed a need for a true mentorship to appropriately support these teachers. Aside from offering supports for new teachers, the mentorship may offer support that will not be provided by the ACP program. It creates a connection with an experienced teacher to work with and learn from. As supports for the ACP teachers vary depending on the program that they are coming from, knowledge of the types of supports that will be provided may be beneficial to principals. This information may allow principals to be prepared to fill the gaps for new teachers. It is important that research is conducted to determine if these ACPs are creating quality teachers prepared for the classroom. The findings may lead to more insight into the specifics of the success of the different programs.

Conclusion

Principals' perceptions of ACPs were found to be relatively consistent. Perceptions indicate ACPs are addressing teacher shortage. Every new teacher that enters a classroom requires guidance and support regardless of what type of program they are coming from. The purpose of this study was to gain the perceptions of principals on ACPs. Principals are prepared to provide the assistance that is needed for all teachers. Some areas of need emerged in the findings from the study such as weaknesses with classroom management and the ability to implement skills learned such as differentiated instruction. These areas of need offer valuable information for principals hiring ACP teachers. They can appropriately prepare to support these areas of need through professional development training or professional learning committees. The results will shed light on some areas of need that principals may need to be aware of when considering teachers coming from ACPs. The information can allow principals to appropriately prepare to fill any gaps that may exist in new teachers. As one participant commented how each individual is different and skills will vary regardless of the program that they

come from. Principals need to be prepared to provide the leadership needed to support teachers. The findings also suggest that professional development is needed and would be beneficial for all teachers in the area of classroom management and differentiated instruction. Using a proactive approach to these findings to support new teachers would allow principals to address possible weaknesses at the start of a teaching career to create success.

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