JPSE
The Spirit of Education

Journal of Practical Studies in Education
ISSN: 2634-4629
www.jpse.gta.org.uk

GTA Press

Pre-Service Teacher Experiences during COVID 19: Exploring the Uncertainties between Clinical Practice and Distance Learning

Jerell B. Hill (Corresponding author)
School of Education, Pacific Oaks College, California, USA
Email: jhill1@pacificoaks.edu

Received: 26/11/2020
Accepted: 20/01/2021
Published: 01/03/2021

Volume: 2 Issue: 2

How to cite this paper: Hill. J. B. (2021). Pre-Service Teacher Experiences during COVID 19: Exploring the Uncertainties between Clinical Practice and Distance Learning. *Journal of Practical Studies in Education*, *2*(2), 1-13
DOI: https://doi.org/10.46809/jpse.v2i2.18

Abstract

Teacher preparation programs assist candidates with the pedagogical, theoretical, and practical application of teaching and learning. This article explored the dialog between a state education agency and teacher preparation programs' responses to the COVID-19 pandemic. The author presents a research study of current teacher performance expectations (TPEs), online readiness, and the design of distance learning in pre-service teacher clinical practice. The participants are 10 current pre-service teachers. The researcher collected data from fieldwork supervisors, observations, and survey results from participants. Kolb's experiential theory was used in the analysis of co-requisite policy and observations of field experiences of students in a teacher education program. The article analyzed data that suggested that in-person observations and opportunities to practice classroom instruction contribute to teacher readiness and relationship building in comparison to online learning. Furthermore, states will have to re-assess their teacher certification requirements, quality control efforts, and mandatory exams since COVID-19, which may lead to the reauthorization of the pre-service guidelines. Program learning outcomes and critical assignments that allow candidates to demonstrate content knowledge and instructional delivery are being compromised. The finding were that pre-service candidates did not have the opportunity to demonstrate mastery of specific teacher performance expectations within the distance learning format. This article aims to encourage further research teacher education and distance learning to discuss potential alternatives to certification and creative ways to embed flexibility into teacher preparation. Substantial changes can lower the quality of a program and significantly decrease effectiveness while increasing data misrepresentation. Distance learning can potentially limit quality supervision and teacher mentoring. In addition, pre-service teachers will enter classrooms with substantially fewer clinical practice hours.

Keywords: Distance Learning, Experiential Learning Theory, Quality Supervision, Covid -19

1. Introduction

For the first time, pre-service teachers will complete program requirements without experiential trial and error. COVID-19 and the rapid rise of online classrooms present various challenges for pre-service teachers in terms of ensuring equity and access. Pre-service teacher will potential start their careers without a culminating experience in a classroom setting with students. Since various rules require practicum hours in the classroom, their experiences will be compromised because they

may not fulfill the pre-requisites for licensure. Additionally, the closure of testing centers and online interviews minimize lesson demonstration, presentation skills, and interaction with students. The success of pre-service teachers in online classrooms is even more dependent on quality supervision, access to appropriate technology, and parental supports. Johnson, Wesley, and Yerrick (2016) assert,

> Here is, however, minimal precedence in education for exploring the use of digital video to reflect upon live teaching events collected in real-time. Digital video has emerged as the tool of choice for capturing and disseminating best practices, particularly in web-based and distance education contexts. (p. 10)

The demand for teachers continues to increase (Wang & Wang, 2020) due to a shortage and the unprecedented times of COVID-19, minimizing opportunities for reflection to understand failures and, most importantly, to build relationships in the learning environment.

The implications of the shelter-in-place mandate, coupled with the complexities of educational policy and practice, mean pre-service teachers will need to adapt instructional approaches based on modality to teach differently because their future students might face a plethora of (academic and non-academic) challenges. During clinical practice, pre-service teachers transition to being teachers of record. During this epidemic, pre-service teachers may miss components of the school environment, culture, and expectations (Sealey-Ruiz, 2013). Furthermore, if students do not have access to sufficient technology, the experimental trials required to discover consistent practices and teaching approaches beyond theory will not take place. Due to this pandemic, measuring student achievement and educational disparities like low-income students who are faced with poverty will continue to presents some challenges (Orfield, & Eaton 1996; Parham, 2002; Noguera, 2003, Darling-Hammond, 2015). This article addresses issues that current pre-service teachers face in light of the COVID-19 pandemic. It is the hope that this article will strengthen partnerships between local schools and teacher preparation programs. Committing to students who are seen and unseen in traditional ways provides an opportunity to increase the presence of an anti-biased approach to teacher education within an online environment. Fletcher (2016) conducted a self-study and concluded that the online instruction compared to the traditional classroom presented assessment data in various ways and that pre-service teachers were providing the same content regardless of the modality (i.e., distance learning or classroom instruction). The conflicting demands and the level of rigor and challenging assignments were not adapted based on students' ability levels or access to digital devices. Theses implications indicate the need for more research in the area of teacher education in a distance learning modality inequities. Furthermore, inequities are magnified, and the pre-service teacher cannot accurately assess student performance (Kim & Burić, 2019). The implications for equity and access of the rapid rise of online classrooms vary according to local conditions and learning organizations' technology integration plans.

As an assessment coordinator and a teacher education program fieldwork supervisor, the researcher presents a perspective and reality directly from the field and my interpretations as an observer. The participants are 10 teacher education candidates in a current teacher preparation program. The researcher present areas for further research due to the inability to enter the classroom and guide instruction. It is essential to investigate pre-service teacher clinical practice during the novel coronavirus pandemic because of the transition from a traditional classroom to a distance-learning format. Understanding pre-service teachers' readiness to transition to in-service is timely and relevant. The question remains, what are the uncertainties between clinical and practice and distance learning? Are pre-service teachers learning what the performance expectations say they should be learning in an online environment? Figure 1 documents factors that impact clinical practice for pre-service teachers. The performance expectations are connected to the profession standards for the teaching practice to give candidates a closer look at how theory inform s practice and that meeting the needs of diverse student populations require continuous improvements, and teaching with a "cultural eye" (Irvine, 2003). The traditional classroom is the setting in which the standards were designed to be evaluated while the pre-service teachers are learning through experiential learning in real time. Distance Learning was the format used to address the COVID-19 Pandemic and to give students access to their education. The educational technology that is relevant allows pre-service teachers to conduct mock lessons, interact with students and receive critical feedback form mentor teachers as they are working to develop their instructional approaches and applying Culturally Relevant Pedagogy (Ladson-Billings, 2014).

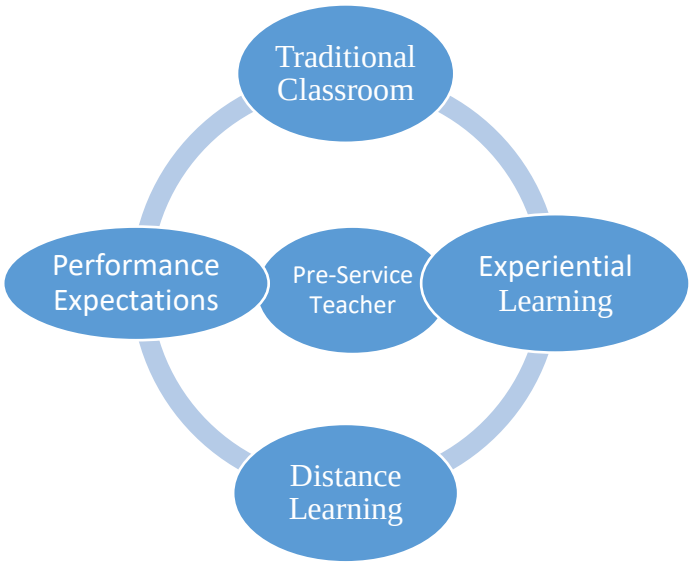

Figure 1. Clinical practice factors that impact pre-service teachers

2. Literature Review

2.1. Experiential Learning

Divergent learning styles lead to lasting results based on students' acquiring the skills to transfer knowledge of pedagogy to practice. Experiential learning (Kolb, 1984) allows pre-service teachers to demonstrate their abilities and their understanding of learners' assets and needs. Also, developing essential teaching skills relies on relationships. It is essential to work with other stakeholders because pre-service teachers and their mentors are closest to the students and are at the core of the action. In addition, learning styles theory suggests that different students have different modes of learning, and instructional approaches should respond to diverse learning styles to maximize academic performance (Banks, 1994; Dunn, 2000). Learners have different ways of learning and thinking that make them distinct from others, and they study best in different ways. The need for anti-biased curriculum (Beneke et al., 2019; Ukpokodu, 2004; Nganga, 2019; Derman-Sparks, 1992; Banks & Banks, 2004) within the distance learning format may yield positive results to differentiating instruction to support diverse learning needs in the classroom. Pre-service teachers need to be prepared to address emergencies using subject-specific pedagogies (Lederman, Gess-Newsome, & Latz,1994). During the COVID-19 pandemic, it requires the creation of a theoretical framework that is high quality and considers alternative standards to meet the needs of students during the turbulent times (Lu, Liu, & Zhang, 2020). In the absence of such guidance, pre-service teachers who were conducting clinical practice were left to design curriculum modifications without policy direction and a distance learning framework.

A practical teaching approach is to identify how learners learn best and design instructional strategies to correspond with situations and learner needs. Experiential learning theory (Kolb, 1984) is based on six elements: Learning is best conceived as a process, not in terms of outcomes; All learning is re-learning; Learning requires the resolution of conflicts between dialectically opposed modes of adaptation to the world; Learning is a holistic process of adaptation to the world; Learning results from synergetic transactions between the person and the environment, and Learning is the process of creating knowledge. Experiential learning may allow pre-service teachers to demonstrate mastery and take ownership of their learning. Insight into how each concept can change as well as of its multi-dimensional importance to learning improves instructional quality

If students engage with responsive environments and instruction, they will attain more satisfactory results (Dunn, 2000; Tomlinson, 2001). This calls for responsiveness and adaptability in instruction to address student diversity. Learners can be categorized into three main types: visual learners, auditory learners, and kinesthetic learners, also called VAK learning styles (Clark, 2000; Tomlinson, 1999). Visual learners learn best through written language, pictures, charts, diagrams, videos, and other demonstrations. They have good visualization skills, remember what was written down, and pay greater attention to other people's body language. Auditory learners prefer instruction and information that is presented verbally. They enjoy making contacts through verbal communication and participating in oral discussions. Kinesthetic learners, unlike the other two groups, greatly benefit from hands-on activities and work best when engaged in role-plays, scenario acts, lab experiments, or other movement activities. Kinesthetic learning is appropriate for those who want to become surgeons, athletes, actors/ actresses, and architects (Pham, 2012). Response strategies that enhance learning experiences for students are based on effective methods with an individualized approach to instruction, attention to strengths and weaknesses, and teaching that is prescriptive to remediate the weaknesses and develop strengths (Glatthorn, Boschee, Whitehead, & Boschee, 2012). This theoretical framework will give pre-service teachers the experiences necessary to deliver instruction in different learning environments.

2.2. Distance Learning

The need to improve teacher quality and evaluation is a pivotal component in improving teacher education because they are preparing to be the primary source of influence student educational experiences (Ornstein & Hunkins,2013). Darling Hammond (2015) reiterates that the entire process of analysis of learning requires an instructional design that specifies instructional theories to ensure quality instruction (i.e., evaluation, activities, delivery, and practice) and a system to meet the learners' needs. Similarly, Garrison (2000) explained that the emergence of distance education would increase educational opportunities, and new models of instructional design would improve practice and delivery methods.

According to Dufour and Marzano (2011), Teacher preparation must address the vast gap between the intended curriculum and the implemented curriculum. Preservice teachers can struggle to consistently understand how standards are implemented, how skills are assessed, and curriculum guides instruction. The need for support in the area if distance learning provides an additional set of challenges with feedback and curriculum implementation. Hattie and Timperley (2007) acknowledged feedback should be a driving force to encourage preservice teachers to problem solve with the necessary details to produce change. Feedback is defined as information regarding one's performance or current understanding (Hattie & Timperley, 2007). Thus, feedback in the clinical practice setting remains an assessment in the teacher preparation program.

Nonetheless, preservice teachers are processing feedback as it relates to their knowledge of the content, not detecting errors to improve student learning. Chetty, R., Friedman, and Rockoff (2014) suggest that feedback should support self-reflection and allow the learner to problem solve feedback received. The level of detail can impact the recommended changes if the information lacks specifics.

Online instruction's success will rely on student access to technology and equity-oriented resources. As St. Maurice (2001) noted,

> At a time when unprecedented scrutiny and controversy surrounding teaching and school, learning to teach is more important than ever. Even so, there have been ways to guide good persons toward great teaching, and learning through adversity is one of the oldest and most proven ways. (p. 385)

The emergence of distance learning may have a positive impact on education by removing barriers and addressing inequities (Banks, 1993). Effective mentor teachers will need to balance their classroom obligations while learning to shift instruction from in-person to online. Secondly, since they are learning while doing, the quality of pre-service teacher supervision is diminished due to the lack of training and the current emergency. Sine COVID-19 emerged, pre-service teachers' performance expectations may have changed. Also, during this emergency, teacher preparation programs could not address difficulties or end unsuccessful placements for their pre-service teachers.

Integrating technology into instruction has made good schools even better. The key is to involve students in inquiry and design-based projects rooted in driving questions and real-world problems (Creswell, 2007). Shifting the educational paradigm to an open system of learning means incorporating technology into the curriculum in ways that inspire students to go beyond the norm and recognize that learning is more than test scores. Technology provides students a global perspective to discover new concepts in real-time. E-learning represents an alternative way of teaching and learning in today's knowledge-economy environment (Gómez-Sancho & Mancebón-Torrubia, 2009).

While definitions of e-learning broadly encompass computer technology, there are several approaches. For instance, Fry (2001) described e-learning as the "delivery of training and education via networked interactivity and a range of other knowledge collection and distribution technologies" (p. 234). The traditional educational setting only allowed the student to engage with concepts of basic knowledge and for a definitive structure of instruction that involves the classics. Common themes of formal education proponents might include the development of a syllabus, transmittal of data and knowledge via lecture, formulation of goals and objectives, assessment, and a focus on an end-product (Glatthorn et al., 2012). The classic concepts of education cannot be overlooked because they provide a pathway to the future.

A key area of research regarding successful e-learning implementation relates to the individual characteristics of the learner. Indeed, several studies linked learner characteristics with e-learning satisfaction or dissatisfaction (Hong, 2002; Piccoli et al., 2001; Sturgill et al., 1999; Sun et al., 2008). A common learner characteristic across studies is self-efficacy. The concept of self-efficacy is derived from Bandura's (1982) social learning theory, which explains that efficacy expectations can affect intrinsic motivation for performing a task. In an e-learning context, confidence in one's ability to complete a task using technology is defined as technological efficacy. Empirical studies in e-learning have demonstrated that learners with better computer skills reported higher levels of satisfaction with web-based courses (Hong, 2002). Similarly, Piccoli et al. (2001) found that e-learning participants reported higher levels of technological efficacy than traditional classroom participants. In an organizational context, employees with higher levels of technological efficacy have reported more satisfaction with their work than employees with lower levels of technological efficacy.

Efficacy also plays a central role in adaptive behavior. For instance, computer efficacy predicts the adoption of technology, such as the internet (Dholakia & Kshetri, 2004) and web-based information systems (Yi & Hwang, 2003). Technological self-efficacy is important in determining who will effectively adopt technology (Bandura, 1997). According to self-efficacy theory, individuals evaluate their ability to cope with a new challenge (i.e., e-learning) and, based on this judgment, will initiate and continue with behavioral strategies to manage the challenge (i.e., e-learning adoption). In the innovation literature, early technological innovation adopters are described as having high self-efficacy. Another individual-

level learner characteristic related to higher satisfaction with e-learning implementation is an openness to change (i.e., being open to new ways of doing things and experiences). Indeed, openness to change has been related to many forms of satisfaction, including life and career satisfaction (Lounsbury et al., 2003). In the present context, changing from traditional learning to e-learning can be a challenging task requiring a psychological transition and such change-related adjustment is likely to be more satisfying for those who are open to change such as adopting e-learning as a new way of personal learning and development (Sawang et al., 2007).

Differentiated instruction is a collection of best practices strategically employed to maximize students' learning and includes giving them the tools to handle undifferentiated teaching (Knowles, 1996; Subban, 2006; Kay & Kibble, 2016; Glatthorn et al., 2012). Effective teachers can recognize individual and group differences among students and adapt instruction to narrow achievement gaps. Stronge (2007) indicated that the adaptation of instruction requires teachers to involve "careful assessment and planning for all students in the classroom, as well as the ability to select from a range of strategies to find the optimal match to the context" (p. 70). Indeed, effective adaptation requires teachers to design strategic and flexible lesson plans, conduct regular assessments, and make timely adjustments to retain students' continued engagement. Teachers also adapt instruction to meet high- and low-achieving students' needs as well those of students who will make progress if they receive different types of presentations.

Tomlinson (1999) indicated that differentiated instruction includes modifying the content, the process, and the product of instruction. The content should be challenging but manageable. This principle matches Vygotsky's (1978) zone of proximal development, which is defined as a discrepancy between a learner's actual mental age and the level that he/she can reach in the field (Darling-Hammond, 1996). Modifying the content is effective if it complies with one's developmental progress and falls in the range of one's development. Additionally, content modification should emphasize key dimensions of instruction for desired learning outcomes. Focusing on the essentials of instruction is a principle that teachers should bear in mind for effective differentiation. Learners tend to forget more than they remember. Thus, the selection of information to present helps maintain effective results. Modifying the instructional process, on the other hand, involves applying varying activities, techniques, and teaching strategies to help learners make sense of meaning and understand underlying principles. This requires teachers to organize instruction in a logical sequence from easy to difficult, concrete to abstract, and simple to complicated (Brown, 2001; Greeno, Collins, & Resnick, 1996; Gagné, 1985). The nongraded levels of learning allow students to take risks, explore ideas, and reconceptualize concepts without being penalized. When penalties are removed, students will experience more authentic learning, and self-directed studying organized appropriately within their zone of proximal development (Vygotsky, 1978). Learning leaders can use the feedback from observations of instruction to guide redevelopment activities to improve instructional delivery.

The National Center for Educational Statics found that "students appear to be mastering the lower-level skills and virtually all students appear to have grasped mathematics, science, and reading fundamentals, few demonstrate competency with more sophisticated materials and tasks" (Snyder, 1993, p. 30). Currently, students face a similar dilemma, and distance learning in K-12 is still in an exploratory phase. The state standards view technology as instructional support and not as the primary mode of instruction. Teacher preparation programs are authorized by the state to ensure that instruction policies are followed, and pre-service teachers must demonstrate mastery of those standards before they are recommended for licensure. Distance learning the evaluation process typically provides teachers with little effective feedback that can be transferred into the classroom to develop practice as opposed to the assumption that regional location will no longer be a barrier to success and that distance learning provides equality of opportunity.

2.3. Teacher Preparation

Pre-service educators are being prepared to support student learning, but the conditions and environments have changed due to the spread of the novel coronavirus. Pre-service teachers will benefit from being prepared to collaborate with other teachers to construct activities. Dewey (1933) correctly stated,

> Unless the familiar are presented under conditions that are in some respect unusual, there is no jog to thinking; no demand is made upon the hunting out something new and different. And if the subject presented is totally strange, there is no basis upon which it may suggest anything serviceable for its comprehension. (p. 290)

There is freedom to explore learning activities since this is new for all educators. The importance of equity-oriented resources and new skills to foster inclusion and diversity will depend on instructional practices and accessible, meaningful curriculum. Neide (1996) expressed,

> Student teaching can be the most effective preparation for becoming a teacher. Under the direction of a cooperating teacher, professional mentor, or university faculty member, novice teachers can learn to implement sound pedagogical techniques that will equip them for successful careers. In its present form, however, the experience may be of dubious value. (p.14)

Authentic preparation and presentations will prepare students to focus on what matters and not just address the remote learning occurring during this pandemic. Assumptions regarding technology minimizing time and maximizing productivity will affect time management (Serdyukov, 2017). Thoughtful planning does not occur quickly and easily because technology

provides increased accessibility and ease of use. Monitoring sources of information and minimizing "clickbait" (Tucker et al., 2017) will be critical to pre-service teachers' success. Misinformation can tarnish learning outcomes and magnify re-learning needs. Effective questioning, as well as emphasizing academically and age-appropriate materials through purpose-driven inquiry, will reduce the influence of tangents in the learning environment.

Teacher education is at the beginning of a digital and monumental pedagogical shift that disconnects teacher preparation from its history of classroom instruction in favor of distance learning. Isolated instruction of theory and pedagogy embedded in teacher preparation may, indeed, alter teaching standards and pre-service certification (NCATE, 2010).

Darling-Hammond and colleagues (2000) described quality teacher education programs as having four key features that align pre-service preparation and professional practice: (a) a clear, shared vision of what good teaching looks like across all aspects of the program, (b) clear standards, (c) a curriculum centered on child development, and (d) learning theories, pedagogy, content knowledge, and applied practice. "Quality programs have both a clinical component and an informative curriculum. They teach pre-service teachers to turn theory into practice by their application of skill-building" (Darling-Hammond, 2010, p. 40).

Table 1 shows California's teacher expectations and professional standards. The preparation program is a space for aspiring teachers to learn, engage, and reflect on teaching and learning processes and evaluating how students learn best. Novice teachers have a steep learning curve and are asked to produce excellence by demonstrating mastery of skills. The National Center on Response to Intervention (NCRTI) acknowledges that there is an increased need for teacher preparation programs to address Response to Intervention (NCRTI, 2010) and all learners. Gomez-Najarro (2020) describes the opportunity to increase collaboration between general and special education beyond emphasizing learning theories. Furthermore, "preparation programs have an opportunity to unpack steps to fostering dialogue between general and special educators about differentiation, accommodation, and relevancy in relation to the content" Gomez-Najarro, 2020, p. 123). Collaboration is critical to teacher preparation. Given the level of co-teaching (Murawski, & Boyer, 2008; Hawbaker, Balong, Buckwalter, & Runyon, 2001; Murawski & Dieker, 2008) occurring in schools, teacher preparation will need to create ways to model these expectations and provided equity-oriented resources.

Table 1. California Teacher Expectations and Professional Standards

California Standards for Teaching Profession (CSTP)	Teacher Performance Expectation (TPEs)	Domain
Engaging and Supporting All Students in Learning	1	Value the socioeconomic, cultural, and linguistic background, funds of knowledge, and achievement expectations of students, families, and the community and use these understandings not only within the instructional process and maintain positive relationships in the classroom.
Creating and Maintaining Effective Environments for Student Learning	2	Create healthy learning environments by promoting positive relationships and behaviors, welcoming all students, using routines and procedures that maximize student engagement, supporting conflict resolution, and fostering students' independent and collaborative learning.
Understanding and Organizing Subject Matter for Student Learning	3	Implement, and evaluate technology-rich learning environments to customize and individualize learning opportunities and assessments for students
Planning Instruction and Designing Learning Experiences for All Students	4	Use digital tools and learning technologies across learning environments as appropriate to create new content and provide personalized and integrated technology-rich lessons to engage students in learning, promote digital literacy, and offer students multiple means to demonstrate their learning.
Assessing Student Learning	5	implement, and use a range of effective classroom assessments to inform and improve instructional design and practice.

Developing as a Professional Educator	6	Seek opportunities to reflect on and improve their practice through collaborative inquiry, observation feedback, and their performance data. Beginning teachers are aware of their potential implicit and explicit biases and the potential impact, positive and/or negative, on their expectations for and relationships with students, families, and colleagues.

2.4. Pre-Service Teacher Success

The University-School Partnerships for the Renewal of Educator Preparation (US PREP, 2020) found five key attributes associated with increased teacher preparedness: (a) a focus on practice, (b) mentoring and coaching, (c) a coherent vision of teaching, (d) integration of coursework and clinical experiences, and (e) partnerships as the driving force for change and improvement. A 2018 study on pre-service teachers and mobile learning readiness found that 84% of the pre-service teachers could sustain learning in an online format for 3 to 4 consecutive hours to replicate the time and intensity of the traditional classrooms and the instructional minutes utilized to deliver lesson plans (Ata & Cevik, 2019). With this being acknowledged, can learning be more effective with mobile devices since they are a part of everyday life?

Rapid responses help socialize the learning environment and close feedback loops to address learning gaps to potentially improve student-teacher relationships (Howard, 2016). Pre-service teachers benefit from instant feedback and parallel modeling (Howard, 2010) in an online real-time instructional format. Another advantage of distance learning is visually. Learners can engage in various ways (i.e., visual journals, interactive presentations, games, collaborative activities). As reported by the American Psychological Association (2012), these additional benefits support students with disabilities through closed captioning and assistive technology.

However, internet access, smart devices, and technology are not created equal. Equity-oriented resources can improve self-concept and well-being (White & Parham, 1990). The additional disparities in distance learning, coupled with the impact of poverty and disruptions caused by limited access, widen achievement gaps and misinform the pre-service teacher's instructional effectiveness. Chuang (2016) found a social presence that can be operationalized was the preferred method of communication. The research implied that people learn best by constructing knowledge that is appropriately supported and demonstrated by the mentor teacher (Bielaczyc & Collins, 1999). Moreover, pre-service teachers benefit from a high-context culture with communication in the physical context. The low-context culture requires a large amount of information to be present to specify meanings. (Chuang, 2016).

This generation of learners are digital natives (Helsper & Eynon, 2010), and flexibility in allowing students to learn at different times and rates provides for lifelong learning and may equalize educational opportunities (Ata & Cevik, 2019). High levels of self-efficacy and discipline required to work in an emergency situation can prepare pre-service teachers with high-leverage practices to respond to students' needs and cultivate self-directed learning.

2.5. Quality Supervision

The cause of skepticism regarding quality supervision is the evaluation process and how candidates are scored, as a multitude of beliefs about what causes termination raises debate. Pre-service teachers are learning theories, classroom management, and scope and lesson sequences with a focus on instructional design in addition to demonstrating mastery on state licensing assessments. Above all, they are understanding students' assets and needs and how policy and practice affect classrooms (Greenberg et al., 2013). To provide quality supervision, do mentor teachers attend continuing education courses as a requirement to supervise pre-service teachers? Researchers have mentioned the differing perceptions and assumptions that in-service teachers have not been exposed to graduate-level courses since their own pre-service training and/or master's degree courses (Goldhaber et al., 2017). This may affect their ability to understand the relevant pedagogy the pre-service teacher displays and can create more disconnection between research and practice. Modeling effective social interactions (Bloomberg et al.,1994;McCarthy, 2017) and using technology will illuminate power suggestions to support pre-service teachers in a digital learning environment.

Local conditions and learning styles will play a significant role in the supervision of pre-service teachers. Pre-service teachers receive quality supervision when their mentor's performance evaluation is not affected by taking on additional responsibility (Darling-Hammond et al., 2000). Gelfuso et al. (2015) state the roles of the mentor teacher and the fieldwork supervisor will need to be re-envisioned.

3. Findings Results and Discussion

The findings were obtained as a result of the survey, field notes, and observations. The COVID-19 pandemic created an unprecedented shift in teacher preparation. Uncertainty regarding licensure and clinical practice hours and performance expectations may, in fact, increase the teacher shortage. The research used the ERICS Database, ProQuest, fieldwork supervisor notes, and survey data. Findings indicate that Beginning Teacher Support Assessment (BTSA) will need to intensify coaching and professional development since the culminating experiences are done through distance learning. Pre-

service teachers will require new learning to address classroom instruction after COVID-19. Also, the TPEs and the professional standards were not modified for distance learning, which created evaluation discrepancies due to teacher candidates' being unable to demonstrate (i.e. text-rich environments, address internet connectivity issues with students, adapting instructional materials, (SEL) Social-Emotional Learning) proficiency through distance learning. The modality requires higher levels of visualization. Teacher preparation programs, state agencies, and K-12 districts should increase collaboration and evaluate the intersections of TPEs, clinical practice, and instructional settings (i.e., distance learning and classrooms). The table below shows the comparison between classroom observations and distance learning clinical practice observations. The scoring is based on candidate skill and indicates areas for improvement. The ratings are (4 -Advancing, 3-Proficient- 2- Emerging, 1-Not Observed). The results below are a combination of fieldwork supervisor notes and survey responses from the participants. Figure 2 compares the participants' performances Pre-Covid-19 (Classroom Setting) to Distance Learning during COVID-19. The figure summarizes the TPE performance discrepancies between the modalities and that specific domains are more difficult to address when they require in-person responses. For example, discipline procedures and redirecting students who are off task was quite challenging for students since they are in a remote setting. Creating and maintaining effective environments seem to be compromised by the fact that mentor teachers and fieldwork coordinators experienced difficulties in measuring pre-service teacher performance. In contrast, mentor teachers and fieldwork supervisors saw elevated performance with the pre-service teachers' ability to organize subject matter and demonstrate empathetic skills (Grant & Hill, 2020) during unprecedented times.

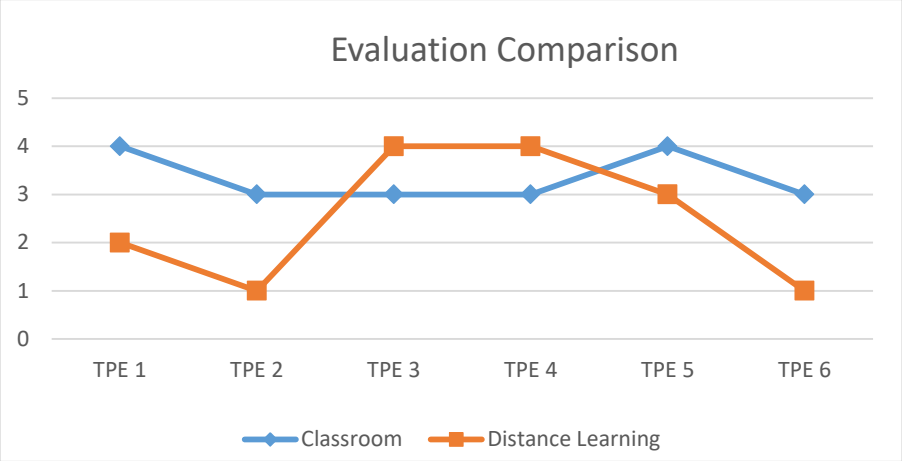

Figure 2. Evaluation Comparison

Discrepancies persist when addressing the needs of diverse learners (DuFour, & Marzano, 2011; Howard, 2016, Darling-Hammond, et al., 2009). The case study analysis showed that pre-service teachers had difficulty adapting and providing supplemental instruction for students with suspected disabilities or pacing instruction by ability grouping, which is consistent with prior findings (Gay, 2018; Hollingsworth, 1989; Kosnik, & Beck, 2009;). Moreover, distance learning does not allow pre-service teachers to demonstrate they can develop positive behavior support plans or ensure equitable treatment of students and their families. There is an inability to differentiate lessons and incorporate culturally meaningful instruction (Banks, 1994; Ladson-Billings, 2006, 2014;Paris, 2012; Gay, 2010; Sealey-Ruiz, 2013) without modified professional standards in distance learning.

The purpose of the Online Readiness Assessment is to measure the skills needed to be successful in technology-rich learning environments. As stated, clinical practice has shifted to virtual learning since the COVID-19 pandemic (Darling-Hammond, 2015). The survey provided insight into strengths at various levels (i.e., online learning, systems of support, technology integration, and time management). The levels are emerging, proficient, and advancing (i.e., needs opportunities to develop, have developed readiness skills for distance learning, fully articulated online readiness and competence). These levels are used as descriptors to measure stages of the pre-service teachers' online readiness. Additionally, distance learning, time management, systems of support, and technology integration were examined to analyze the online modality, the different requirements, and potential distractibility points that impede learning. Furthermore, time management was used to understand expectations within the distance learning environment because of its role regarding student engagement, differentiated activities, and learning sequences. Systems of supports (i.e., email, video conferencing, learning management systems, portfolios, and data collection) measures demonstrate collaboration and communication between the pre-service teacher and the mentor teacher. Feedback and measurement of student learning outcomes are essential, and online environments can provide multiple means of increased communication and higher levels of achievement when implemented effectively.

Table 2. Online Readiness Results

Respondents	Distance Learning	Time Management	Systems of Support	Technology integration
R1	Emerging	Proficient	Emerging	Proficient
R2	Proficient	Emerging	Emerging	Emerging
R3	Advancing	Advancing	Advancing	Advancing
R4	Emerging	Emerging	Proficient	Advancing
R5	Advancing	Emerging	Advancing	Advancing
R6	Proficient	Proficient	Proficient	Proficient
R7	Emerging	Proficient	Proficient	Proficient
R8	Proficient	Proficient	Proficient	Proficient
R9	Advancing	Emerging	Proficient	Proficient
R10	Advancing	Advancing	Advancing	Advancing

The results indicated that pre-service teachers are self-starters and collaborators. They are confident in their ability to achieve in an online environment. Additionally, the results showed a strong response in differentiated instruction within a distance learning format, as 9 of 10 respondents were proficient or advanced based on the rubric criteria. On the other hand, time management was a challenge. Interpreting and using assessment within an online format differ from classroom instruction, showing a need to explore support and methods of time management (Ertmer, 2005). Time management in the classroom is considered the primary determinant of how students will be motivated and how they will learn (Wong et al., 2012). Also, time management skills will help to develop more understanding regarding needs and levels of proficiency while lending to anticipatory concepts to address trends and emerging themes for future research. The findings suggest that there will be gaps in what the TPEs expect preservice teachers to learn when they are participating in clinical practice with in a distance learning format—also, the need for reviewing TPEs based on specific modalities (classroom and distance learning formats). Documenting student feedback from each of the candidates to see how they felt about the format and their ability to navigate may provide additional data points to guide program design and continuous improvement efforts. The uncertainties between pre-service teacher's clinical practice and distance learning shed light on online readiness and how the discrepancies that TPEs present in distance learning detract from the successful pre-service teacher performance.

4. Conclusion

The clinical practice serves as the culminating experience before pre-service teachers complete their preparation program and pre-requites for licensure. Subject-specific pedagogy and adapting performance expectations to improve student learning outcomes will benefit both students and teachers (Gay, 2018). The Teaching Works program emphasized High-leverage practices (Teaching Works, n.d.; Howard, 2016) will be essential in addressing gaps between distance and classroom learning(Fry, 2001) environments. Furthermore, re-thinking clinical practice that allows candidates to rehearse lessons with students before the end of their program will increase confidence and give pre-service teachers more opportunities to demonstrate mastery. Technology integration remains a critical component for preparing students for a globally competitive interconnected society. Assessing assumptions and persistent disparities will lead to further inquiry and exploration.

What remains unresolved is how pre-service teachers will meet licensure requirements and how BTSA programs will assist with the transition from pre-service to in-service. Additionally, state education agencies will need to address prerequisites that require entry to the profession and in-classroom lesson demonstrations (Richardson, & Mancabelli, 2011; Darling-Hammond, 2015). The fact remains that the teacher shortage existed prior to COVID-19, and equity and access disparities are being magnified due to the lack of appropriate resources and insurmountable conditions resulting from poverty.

The urgency now is to find ways to reconnect with students and create experiences that invite creativity, collaboration, communication, and cultural intelligence into the learning environment (Howard, 2010). Lastly, capturing the amount of learning loss from students with disabilities and language learners will create remedial challenges and increased needs for compensatory services.

Schools will have to lead their communities with empathy and compassion and remind families that we will get through this together. Having the ability to embrace complexities, the COVID-19 Crisis shows the need for change and why and further critique from the field of teacher education is necessary. The hope is that more research can assist with building the capacity to manage change and explore uncertainties that exist.

In discussing classroom management and establishing digital norms, transitioning between activities requires quality supervision and high-leverage practices Darling-Hammond, 2015. Students' learning styles differ, and their participation may be difficult to manage through distance learning. This lesson will matter when pre-service teachers transition to in-service. The essential teaching skills contribute to learning and are related to the cognitive process through the interdependence of classroom management and effective instruction, the importance of planning, and the central role rules and procedures play

in creating a classroom environment that promotes both academic and social-emotional learning (Tomlinson, 2001). The connection to experiential learning theories is designed on the premise that people want their experiences to make sense.

Self-assessment influences how effective we are at interacting with others and with our environment. Observable learning is influenced by four processes of attention, retention, or memory, behavioral rehearsal, and motivation. Virtually all learning phenomena resulting from direct experiences (US Prep, 2020) can occur on a vicarious basis through observation of other people's behavior and its consequences for the observer (Merriam et al., 2007; Darling-Hammond et al., 2009). In the traditional framework of experiential learning theory, it is assumed that the acquisition of domain-specific knowledge structures (or schemas) is the only instructional goal, and, therefore, the theory applies to any instructional task. Accordingly, the basic concepts of intrinsic (productive) and extraneous (unproductive) types of cognitive load were defined based on the relevance (or irrelevance) of the corresponding cognitive processes that impose the load of achieving this universal instructional goal, and the instructional methods advocated by this theory are aimed at enhancing the acquisition of domain-specific schemas (Kalyuga, & Singh, 2016). The recent work in teacher education has affirmed the need to evaluate the impact on pre-service teacher effectiveness (National Council on Teacher Quality, 2017) and the intersections among TPEs, learning environments (virtual and classroom settings), and clinical practice.

References

American Psychological Association. (2012). Guidelines for assessment of and intervention with persons with disabilities. *American Psychologist, 67*(1), 4362.

Ata, R., & Ceivik M.(2019). Exploring relationships between Kolb's learning styles and mobile learning readiness of pre-service teachers: A mixed study. Education and Information Technologies, 24(2), 1351-1377.

Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist, 37*(2), 122–147.

Bandura, A. (1997). *Self-efficacy: The exercise of control*. W.H. Freeman.

Banks, J. (1993). *Multicultural education: Issues and perspectives* (2nd ed.). Allyn & Bacon.

Banks, J. (1994). *Multiethnic education: Theory and practice* (3rd ed.). Allyn & Bacon.

Banks, J. A., & Banks, C. A. M. G. (2004). *Multicultural education: Issues and perspectives*. Hoboken, N.J: Wiley.

Beneke, M. R., Park, C. C., & Taitingfong, J. (2019). An Inclusive, Anti-Bias Framework for Teaching and Learning About Race With Young Children. *Young Exceptional Children*, *22*(2), 74–86.

Bielaczyc, K., & Collins, A. (1999). Learning communities in classrooms: A reconceptualization of educational practice. In C. M. Reigeluth (Ed.), *Instructional-design theories and models: A new paradigm of instructional theory* (Vol. 2, pp. 269–292). Lawrence Erlbaum.

Bloomberg, L., Meyers, J., & Braverman, M. T. (1994). The Importance of Social Interaction: A New Perspective on Social Epidemiology, Social Risk Factors, and Health. *Health Education Quarterly*, *21*(4), 447–463.

Brown, K. G. (2001). Using computers to deliver training: Which employees learn and why? *Personnel Psychology, 54*, 271–296.

Chuang, H. H. (2016). Leveraging CRT awareness in creating web-based projects through use of online collaborative learning for pre-service teachers. Educational Technology Research and Development, 64(4), 857–876.

Chetty, R., Friedman, J. N., & Rockoff, J. E. (2014). Measuring the impacts of teachers II: Teacher value-added and student outcomes in adulthood. American Economic Review.

Clark, D. (2000). VAK learning styles. Retrieved from http://www.nwlink.com/~donclark/hrd/learning/styles.html#vak

Creswell, J. W. (2014). *Qualitative inquiry and research design: Choosing among five approaches* (2nd ed.). SAGE.

Darling-Hammond, L. (1996). What matters most: A competent teacher for every child. *Phi Delta Kappan, 78*, 193–200.

Darling-Hammond, L. (2010). Teacher education and the American future. *Journal of Teacher Education*, *61*(1-2), 35–47.

Darling-Hammond, L., Macdonald, M. B., Snyder, J., Whitford, B. L., Ruscoe, G., & Fickel, L. (2000). *Studies of excellence in teacher education: Preparation at the graduate level*. American Association of Colleges for Teacher Education.

Darling-Hammond, L. (2015). Can value added add value to teacher evaluation? *Educationa! Researcher, 44*(2), 132-137.

Darling-Hammond, L., Chung Wei, R., Andree, A., Richardson, N., & Orphanos, S. (2009). *Professional learning in the learning profession: A status report on teacher development in the United States and abroad*. National Staff Development Council.

Derman-Sparks, L. (1992). Reaching potentials through antibias, multicultural curriculum. In S. Bredekamp & T. Rosegrant (Eds.), Reaching potentials: Appropriate curriculum and assessment for young children. Washington DC: National Association for Education of Young Children.

Dewey, J. (1933). *How we think*. D. C. Heath and Company.

Dholakia, R. R., & Kshetri, N. (2004). Factors impacting the adoption of the Internet among SMEs. *Small Business Economics, 23*(4), 311–322.

DuFour, R., & Marzano, R.J. (2011). *Leaders of learning: How district, school, and classroom leaders improve student achievement. S*olution Tree Press.

Dunn, R. (2000). Learning styles: Theory, research, and practice. *National Forum of Applied Educational Research Journal, 13*(1), 3–22.

Ertmer, P. A. (2005). Teacher pedagogical beliefs: The final frontier in our quest for technology integration? *Educational Technology Research and Development, 53*(4), 25–39.

Fletcher, T. (2016).Developing principles of physical education teacher education practice through self-study. *Physical Education and Sport Pedagogy, 21*(4), 347-365.

Fry, K. (2001). E-learning markets and providers: Some issues and prospects. *Education + Training, 43*(4/5), 233–239.

Gagné, E. D. (1985). *The cognitive psychology of school learning*. Little, Brown.

Garrison, R. (2000). Theoretical Challenges for Distance Education in the 21st Century: A shift from structural to transactional issues. The International Review of Research in Open and Distributed Learning, 1(1), 1-8.

Gay, G. (2018). *Culturally responsive teaching: Theory, research, and practice*. teachers college press.

Gay, G. (2010). Culturally responsive teaching. New York: Teachers College Press.

Gelfuso, A., Parker, A., & Dennis, D. V. (2015). Turning teacher education upside down: Enacting the inversion of teacher preparation through the symbiotic relationship of theory and practice. *Professional Educator, 39*(2), 1–16.

Glatthorn, A. A., Boschee, F., Whitehead, B. M., & Boschee, B. F. (2012). *Curriculum leadership: Strategies for development and implementation* (3rd ed.). Sage.

Goldhaber, D., Krieg, J. M., & Theobald, R. (2017). Does the match matter? Exploring whether student teaching experiences affect teacher effectiveness. *American Educational Research Journal, 54*(2), 325–359.

Gomez-Najarro, J. (2020). An Empty Seat at the Table: Examining General and Special Education Teacher Collaboration in Response to Intervention. *Teacher Education and Special Education, 43*(2), 109–126.

Gómez-Sancho, J. M., & Mancebón-Torrubia, M. J. (2009). The evaluation of scientific production: Towards a neutral impact factor. *Scientometrics, 81*(2), 435–458.

Grant, D., & Hill, J. B. (2020). Activating Culturally Empathic Motivation in Diverse Students. *Journal of Education and Learning Journal of Education and Learning, 9*(5), 45–58.

Greenberg, J., McKee, A., & Walsh, K. (2013). *Teacher prep review: A review of the nation's teacher preparation programs*. National Center on Teacher Quality.

Greeno, J. G., Collins, A. M., & Resnick, L. B. (1996). Cognition and learning. In D. Berliner & R. Calfee (Eds.), *Handbook of educational psychology* (pp. 15–46). Macmillan.

Hattie, J., & Timperley, H. (2007). The power of feedback. *Review of Educational Research, Vol. 77*(88).

Hawbaker, B. W., Balong, M., Buckwalter, S., & Runyon, S. (2001). Building a strong BASE of support for all students through coplanning. *TEACHING Exceptional Children, 33*(4), 24–30.

Helsper, E., & Eynon, R. (2010). Digital natives: Where is the evidence? *British Educational Research Journal, 36*(3), 503–520.

Hollingsworth, S. (1989). Prior beliefs and cognitive change in learning to teach. *American educational research journal*, *26*(2), 160-189.

Hong, K. S. (2002). Relationships between students' and instructional variables with satisfaction and learning from a Web-based course. *The Internet and Higher Education, 5*(3), 267–281.

Howard, T. C. (2010). *Why race and culture matters in schools: Closing the achievement gap in America's classrooms*. Teachers College Press.

Howard, T.C. (2016). Relationships & Learning: Keys to academic success. Retrieved from https://www.teachingworks.org/images/files/TeachingWorks_T.C.Howard.pdf

Hoover, J. J. (2018). Exceptionality, diversity, and educator preparation: Overview of the topical issue. *Teacher Education and Special Education, 41*, 173–175.

Irvine, J. J. (2003). Educating teachers for diversity: Seeing with a cultural eye. New York: Teachers College Press

Johnson, J. A., Wesley, W. M., & Yerrick, R. (2016). Exploring the use of tablets for student teaching supervision. *I-Manager's Journal on School Educational Technology, 12*(1), 8-17.

Kalyuga, S., & Singh, A. (2016). Rethinking the boundaries of cognitive load theory in complex learning. *Educational Psychology Review, 28*(4), 831–852.

Kay, D., & Kibble. J. (2016). Learning theories 101: Application to everyday teaching and scholarship. Advanced Physiology Education, 40(1), 17–25.

Kim, L. E., & Burić, I. (2019). Teacher self-efficacy and burnout: Determining the directions of prediction through an autoregressive cross-lagged panel model. *Journal of Educational Psychology.*

Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development* (Vol. 1). Prentice-Hall.

Kosnik, C., & Beck, C. (2009). *Priorities in teacher education: The 7 key elements of pre-service preparation*. Routledge.

Knowles, M. S. (1996). Adult learning. In R.L. Craig (Ed.), ASTD training & development handbook: A guide to human resource development (4th ed.) (pp. 254-265). New York: McGraw Hill.

Ladson-Billings, G. (2006). It's not the culture of poverty, it's the poverty of culture: The problem with teacher education. Anthropology & Education Quarterly, 37(2), 104–109. https://doi.org/10.1525/aeq.2006.37.2.104

Ladson-Billings, G. (2014). Culturally relevant pedagogy 2.0: The remix. *Harvard Educational Review, 84*(1), 74–84.

Lederman, N. G., Gess-Newsome, J., & Latz, M. S. (1994). The nature and development of preservice science teachers' conceptions of subject matter and pedagogy. *Journal of Research in Science Teaching, 31*(2), 129-146.

Lounsbury, J. W., Loveland, J.M., Sundstrom, E.D., Gibson, L. W., Drost, A.W., & Hamrick, F.L. (2003). An investigation of personality traits in relation to career satisfaction. *Journal of Career Assessment, 11*(3), 287–307.

Lu, X., Liu, X, W., & Zhang, W. (2020). Diversities of learners' interactions in different MOOC courses: How these diversities affects communication in learning. Computers & Education, 151,11.

McCarthy, J. (2017). Enhancing feedback in higher education: Students' attitudes towards online and in-class formative assessment feedback models. *Active Learning in Higher Education, 18*(2), 127–141.

Merriam, S. B., Caffarella, R. S., & Baumgartner, L. (2007). *Learning in adulthood: A comprehensive guide* (3rd ed.). Wiley.

Murawski, W., & Dieker, L. (2008). Fifty ways to keep your coteacher: Strategies for before, during, and after co-teaching. *TEACHING Exceptional Children, 40*(4), 40–48.

Nganga, L. (2019). Preservice teachers perceptions of teaching for global mindedness and social justice: Using the 4Cs (Collaboration, Critical thinking, Creativity and Communication) in teacher education. *Journal of Social Studies Education Research, 10*(4), 26-57. Retrieved from https://www.learntechlib.org/p/216548/.

Nation Center on Response to Intervention. (2010). *Essential components of RTI--a closer look at response to intervention*. Author.

National Council on Teacher Quality. (2017). *A close look at student teaching: Undergraduate secondary programs*. Author.

Neide, J. (1996). Supervision of student teachers: Objective observation. *Journal of Physical Education, Recreation & Dance, 67*(7), 14–18.

Noguera, P. A. (2003). *City schools and the American dream: Reclaiming the promise of public education*. Teachers College Press.

Orfield, G., & Eaton, S. E. (1996). *Dismantling desegregation: The quiet reversal of Brown v. Board of Education*. The New Press.

Ornstein, A. C., & Hunkins, F. P. (2013). Curriculum: Foundations, principles, and issues. Boston, USA: Pearson Education, Inc.

Parham, T. A. (Ed.). (2002). *Multicultural aspects of counseling series, Vol. 18.Counseling persons of African descent: Raising the bar of practitioner competence.* Sage Publications, Inc.

Paris, D. (2012). Culturally sustaining pedagogy: A needed change in stance, terminology, and practice. Educational Researcher, 41(3), 93–97.

Pham, H. L. (2012). Differentiated instruction and the need to integrate teaching and practice. *Journal of College Teaching & Learning (Online), 9*(1), 13–20.

Piccoli, G., Ahmad, R., & Ives, B. (2001). Web-based virtual learning environments: a research framework and a preliminary assessment of effectiveness in basic IT skills training. *MIS Quarterly, 25*(4), 401–426.

Richardson, W., & Mancabelli, R. (2011). Personal learning networks: Using the power of connections to transform education. Solution Tree Press.

Sawang, S., Unsworth, K., & Sorbello, T. M. (2007). An exploratory study of innovation effectiveness measurement in Australian and Thai SMEs, *International Journal of Organizational Behaviour, 12*(1), 110–125.

Sealey-Ruiz, Y. (2013). Toward a pedagogy of racial literacy in first year composition. *Teaching English in the Two-Year College, 40*(3), 384–398.

Serdyukov, P. (2017). Innovation in education: What works, what doesn't, and what to do about it? *Journal of Research in Innovative Teaching & Learning, 10*(1), 4–33.

Snyder, T. D. (1993). *120 years of American education: A statistical portrait*. U.S. Dept. of Education, Office of Educational Research and Improvement, National Center for Education Statistics.

St. Maurice, H. (2001). Supervising unsuccessful student teaching assignments: Two terminator's tales. *The Educational Forum, 65*(4), 376–386.

Stronge, J. H. (2007). *Qualities of effective teachers* (2nd ed.). Association of Supervision and Curriculum Development.

Sturgill, A., Martin, W., & Gay, G. (1999). Surviving technology: A study of student use of computer-mediated communication to support technology education. *International Journal of Educational Telecommunications, 5*(3), 239–259.

Subban, P. (2006). Differentiated instruction: A research basis. International Education Journal, 7(7), 935–947.

Sun, P. C., Tsai, R.J., Finger, G., Chen, Y. Y. & Yeh, D. (2008). What drives a successful e-learning? An empirical investigation of the critical factors influencing learner satisfaction. *Computers and Education, 50*(4), 1183–202.

Teaching Works. (n.d.). High leverage practices. http://www.teachingworks.org/work-of-teaching/high-leverage-practices

Tomlinson, C. (1999). *The differentiated classroom: Responding to the needs of all learners*. Association for Supervision and Curriculum Development.

Tomlinson, C. (2001). *How to differentiate instruction in mixed-ability classrooms* (2nd ed.). Association for Supervision and Curriculum Development.

Tucker, J. A., Theocharis, Y., Roberts, M. E., & Barberá, P. (2017). From liberation to turmoil: Social media and democracy. *Journal of Democracy, 28*(4), 4659.

Ukpokodu, O. (2004). The impact of shadowing culturally different students on preservice teachers' disposition toward diversity. Multicultural Education, 12, 19-28.

US PREP.(2020). *Shifting clinical experience using virtual formats*. Retrieved from https://www.usprepnationalcenter.com/research-publications/

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes* Cambridge, Mass.: Harvard University Press.

Wang, J., & Wang, Z. (2020). Strengths, weaknesses, opportunities and threats (SWOT) analysis of China's prevention and control strategy for the COVID-19 epidemic. *International Journal of Environmental Research and Public Health, 17*(7), 2235. Retrieved from https://www.ncbi.nlm.nih.gov/pubmed/32225019

White, J. L., & Parham, T. A. (1990). *The psychology of Blacks: An African American perspective*. Prentice-Hall.

Wong, H., Wong, R., Rogers, K., & Brooks, A. (2012). Managing your classroom for success. *Science and Children, 49*(9), 60–64. Retrieved from https://www.jstor.org/stable/43747385

Yi, M. Y., & Hwang, Y. (2003). Predicting the use of web-based information systems: self-efficacy, enjoyment, learning goal orientation, and the technology acceptance model. *International Journal of Human-Computer Studies, 59*(4), 431–449.