Improving Aspiring Teachers' Confidence in Their Ability to Conduct Parent-Teacher Conferences through the Use of Artificial Environments.

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Abstract

Overall teacher effectiveness is connected to the teacher's sense of confidence in their personal ability to be effective. An important part of teacher effectiveness is communication and collaboration with parents and family members of their students. Research has demonstrated the positive impact strong relationships between families and school have on both parties. However, even the most comprehensive teacher preparation programs are limited in the amount of practice they can provide aspiring teachers because parent–teacher conferences are confidential meetings. This study sought to determine if providing aspiring teachers an opportunity to practice conferencing in a simulated environment would improve their confidence and sense of self-efficacy. It provided teacher candidates with artificial environments in which to practice simulated parent–teacher conferences to determine if engaging in a simulation improved their sense of confidence in their ability to conduct these meetings effectively. The use of artificial environments had a positive impact on aspiring teachers' confidence and self-efficacy. This technology has far-reaching implications for various parts of teacher preparation programs and beyond.

Keywords: artificial intelligence; teacher preparation; aspiring teachers; parent–teacher conference; simulations; teacher efficacy

Introduction

The rise of artificial intelligence (AI) and its impact on society has created an understandable sense of alarm among many in the field of education. As a stand-alone technology, artificial intelligence has more that is unknown than known and its impact, both positive and negative, seems potentially far reaching. However, there is good argument in support of the use of artificial and virtual environments in the field of personnel development. The U.S. Department of Education Office of Educational Technology has taken a position and developed policies on the

use and implementation of artificial intelligence in the field of education. Not surprisingly, the U.S. Department of Education Office of Educational Technology (2023) appears to focus on the positives that AI can provide, and highlights ways educators can benefit from the technology. Key takeaways include adaptability, personalization, and, most notably, the ability to customize direct feedback.

For a variety of reasons, artificial and virtual environments can be the key to flexible, customized, and meaningful teacher preparation programs. As referenced by the U.S. Department of Education Office of Educational Technology, virtual or artificial environments can be the answer for several needs in teacher preparation programs including distance learning. Additionally, with virtual environments, pedagogical skills can be practiced repeatedly with or without direct coaching. With the use of artificial environments, aspiring teachers can obtain access to experiences that are otherwise inaccessible in even the most comprehensive teacher preparation programs. Lastly, artificial environments can provide aspiring teachers with the opportunity for repeated practice and immediate feedback loops.

A key argument for the promotion of artificial environments in teacher preparation is the ability to implement a continuous improvement cycle. While the simulation occurs in real time and is live, the environment is artificial; therefore, it can be stopped and restarted at any time. This flexibility allows for immediate feedback and coaching, allowing the aspiring teacher to immediately implement feedback and continue practice. The ability to safely and securely practice and implement the feedback that is given increases the likelihood that aspiring teachers will build confidence in the necessary skills to become effective classroom teachers.

Artificial Intelligence will, no doubt, play a pivotal role in teacher preparation. At some point, either currently or in the near future, artificial intelligence and artificial environments used for practice will play a role in teacher development including, but not limited to, enhancing skills, adaptations in learning, personalized and differentiated instruction, and access to high quality opportunities for practice (Jamal, 2023).

Background

In 2013, Southeastern Louisiana University (SLU) partnered with the researchers at the University of Central Florida to begin preliminary implementation of the use of mixed reality environments in the teacher preparation program. Because the technology was in its early phase, the faculty at Southeastern Louisiana University was limited to one classroom of virtual middle

school students that could be taught a variety of subjects. Faculty utilized the technology mainly in methods and lesson planning classes. The middle school environment was used for aspiring teachers to present their lesson and practice instructional techniques. It was a relatively straightforward process in which aspiring teachers delivered the content, the middle school class asked questions, made a few disruptions that the aspiring teacher redirected, and the lesson closed. After the lesson, the instructor and the aspiring teacher debriefed and feedback was given. Often, the aspiring teacher wrote a reflection of the process, focusing on what went well and what could be improved.

Through the use of cameras, microphones, and projectors, aspiring teachers could interact and teach the classroom of students in real time. In order for any type of simulated experience to be effective, there must be the phenomenon of "presence" (Dede, 2009). Additionally, participants must "buy in" and believe that the interaction with the artificial world is real. In other words, aspiring teachers must "suspend their disbelief" (Dieker et al., 2014a). While the environment is artificial, there is a human component on the other end of the interaction. The human interactor provides real-time comments, questions, and disruptions as would happen in any typical classroom setting. Even within this early phase of the technology, the human component adds to the unpredictability and is the key feature to ensuring aspiring teachers feel the presence and easily suspend their disbelief.

Over time, the technology has developed and become simpler to use, while also becoming much more complex. The technology has been simplified mainly as it is now entirely web-based, and it is easily accessed. In addition, the content has grown; now, the faculty at SLU has access to middle school, early elementary, and high school classrooms and a wider range of content and subject areas to teach.

SLU has since partnered with Mursion Inc. to expand the access and use of artificial environments to supplement the teacher preparation program. Currently, this technology is almost completely customizable and is nimble enough to be accessed from basically anywhere. Course instructors can access the technology from campus, but aspiring teachers can also access it from classrooms and any off-campus location with available Wi-Fi.

Value-Added Benefit

The question has been posed whether an artificial environment is needed in teacher preparation. Traditionally, all of the practice required in teacher preparation programs has been

provided in actual clinical settings, utilizing real-life classrooms and students. While this remains the core of experiences for aspiring teachers, and will likely remain the primary placement for clinical practice, there is room for expanding clinical practice as we know it. While a classroom or live parent–teacher conference is the ideal place for novice teachers to practice, there are limitations, whereas artificial environments lend three benefits: an opportunity for aspiring teachers to think on their feet, a provision for flexibility in the system, and a safe environment for practice. These features enable aspiring teachers to enhance their skills and grow and develop confidence in their abilities.

Thinking on Your Feet

In order for artificial environments to be effective, teacher candidates must buy in to the experience. Buy-in succeeded because suspension of disbelief, which is critical to the effectiveness of the experience, proved easily achieved and the simulation and interaction appeared very real. While the environment was artificial, the interaction was mixed-reality which means there was a human component on the other end. The human component provided the value-added benefit to the experience. While interacting within the artificial environment, the teacher candidates could not predict or anticipate what the interactor would say or do. There was a great deal of unpredictability which simulated real life.

When conducting conferences, teachers experience a great deal of unpredictability. Arguably, unpredictability can be problematic on both sides of the conversation table; no one can really predict how a meeting will go. The stakes can be much higher when the topic of conversation is something difficult to discuss. The opportunity to cope with the element of unpredictability makes artificial environments such an invaluable tool for teacher preparation programs. As will be discussed, the ability to highly customize each aspiring teacher's interaction makes this artificial experience seem like reality. Aspiring teachers learn how to respond appropriately, how to interact when faced with a challenge, and how to maintain composure and professionalism during a stressful situation. They also learn how to establish and maintain boundaries, and how to maintain supportive language during a positive exchange.

Flexibility

While teacher preparation programs want to remain forward facing in planning, it is sometimes important to look back in order to prepare for what lies ahead. The nation was rocked by stay-at-home orders in recent years, which had a direct impact on all preparation programs due

mainly to the limited access to school sites. While many of the nation's colleges and universities eventually moved back to on-campus learning, many K–12 schools kept their doors closed to all visitors, including aspiring teachers, greatly limiting programs' ability to provide clinical practice for aspiring teachers. Universities across the Southeast have also faced the reality of school closures due to hurricanes, flooding, and other weather-related disasters. Despite these often unpredictable obstacles, teacher preparation programs still must provide opportunities for aspiring teachers to practice. In situations where classroom accessibility is limited, artificial environments can provide much needed backup. In the case of Mursion Inc. environments, aspiring teachers can access the classroom from the comfort of their own home or dorm room; wherever they can access Wi-Fi. Even in a post-pandemic era, the use of artificial environments for aspiring teacher practice will be a critical tool.

Safe Environment for Practice

A classroom, while the traditional environment for teacher practice, risks potential harm to the learning potential of the students. An inexperienced aspiring teacher brings the potential for mistakes to a classroom of students, which can impact a student's learning. Artificial environments provide inexperienced aspiring teachers a safe place to practice a new skill or implement a new technique. "If novice teachers make mistakes or if experienced teachers want to experiment with a new teaching idea, it poses no danger to the learning of any real student" (Dieker et al., 2017). Additionally, artificial environments provide a safe opportunity for repetitive practice. If a skill is not yet fully acquired, an aspiring teacher can practice it over and over as needed, each time starting new as if it was their first time.

In 1984, David Kolb published the theory of experiential learning, which highlights the need for concrete experiences, reflection, abstract conceptualization, and active experimentation. The theory also highlights the need for reflection on an experience in order to solidify learning. In this study, the use of the artificial environment for practice provides aspiring teachers concrete experiences, with the opportunity for repetitive practice and reflection. This is a critical tool for aspiring teachers who may need additional time to achieve mastery of a specific skill. Additionally, artificial environments provide even experienced teachers the opportunity to further hone developed skills, and, with the use of immediate coaching and feedback, they can continue implementation and practice multiple times to increase effectiveness and efficiency. It

allows for concrete experiences and reflective observation which are needed for continued learning.

Literature Review

Efficacy and Teacher Effectiveness

In order for teacher candidates to become effective educators, they must first believe in their own abilities to become effective. In 1977, Albert Bandura published the theory of self-efficacy. Essentially, Bandura theorized that an individual's belief in their abilities positively impacts their persistence and effort. In this case, Bandura's theory demonstrates the link between positive experiences of aspiring teachers during their preparation program and the positive impact that will have on their long-term feelings of self-efficacy.

While efficacy may be difficult to measure, research shows that teacher efficacy is related to their own persistence and commitment to student outcomes (Moran & Hoy, 2001). If a teacher candidate has a strong sense of efficacy, they believe in their own ability to become a strong, effective educator. Teacher preparation programs teach and prepare aspiring teachers in methodology, planning and preparation, and classroom management. However, many do not focus on practicing the skills necessary to conduct effective and meaningful parent–teacher conferences. Aspiring teachers may understandably be less prepared for these interactions and feel less able to conduct these kinds of meetings. The more an aspiring teacher believes in their ability to do something well, the more likely they are to be successful. Without access to observe or engage in parent–teacher conferences, it is less likely that an aspiring teacher will feel confident in their ability to do so. Provided with the ability to engage in real-time parent–teacher conferences, aspiring teachers potentially will gain confidence in their skills, which then will increase their own positive beliefs about their abilities. Considering that most meetings, including parent–teacher conferences and Individualized Education Plan (IEP) meetings, are confidential and restricted for observations, it is understood why aspiring teachers feel less prepared to engage in these meetings after graduation. The utilization of artificial environments and simulations fills this important gap. The lack of access to this level of practice exists within even the most comprehensive teacher preparation programs. Building the confidence and skills of aspiring teachers to effectively communicate with families is critical, as the research shows how important this relationship is for overall student success.

Family–School Relationships

Effective communication is a key component of positive parent–teacher relationships. According to ASCD, students learn best when caregivers and school personnel can communicate with each other effectively (Hoerr, 2022). For families and caregivers of children with disabilities, this relationship is especially important for overall student success. Henderson and Mapp (2002) find that when schools and families collaborate effectively, students generally have improved educational outcomes. Research (Mapp, Henderson, et.al., 2022) has consistently shown that positive school–family relationships lead to several strong indicators, including attainment of IEP goals, consistent attendance rates, and more frequent access to a wide array of support services. Essentially, when families and schools work together, students perform better.

Even in the most comprehensive teacher preparation programs, the parent–teacher conference is often the one experience that teacher candidates do not have the opportunity to practice. Meetings between families or caregivers and teachers are usually confidential; therefore, teacher candidates typically do not have the opportunity to practice or even observe the process of effective conferencing. To provide such opportunities, since 2014 the Department of Teaching and Learning at SLU has utilized a mixed-reality platform to support the development of teacher candidates. SLU utilizes the Mursion Inc. virtual reality training platform for the development of pedagogical skills, classroom management, instruction delivery, and, most notably, parent–teacher conferences.

Majors in the Special Education curricula at SLU have the unique opportunity to graduate as dually certified teachers. Special Education (SPED) majors graduate with both general education and special education licensure in their identified area of specialty. Throughout the teacher preparation program, teacher candidates have the opportunity to access Mursion's platform to practice skills in a safe and supported environment with coaching from instructional staff. The Special Education curricula across all grade levels include coursework that focuses on family–school partnerships and how to develop effective communication strategies with families and caregivers. Throughout the coursework, teacher candidates are initially provided with content and best practices, including instruction in how to support families of students with disabilities, and then they are gradually released into demonstration and practice by implementing a virtual parent–teacher conference. Importantly, students are introduced to the long history of family and school engagement and partnerships, along with historical struggles, and key successes.

The Mursion platform offers a one-to-one forward-facing interaction with a family member. “Ms. Stacy Atkins” is a parent with whom teacher candidates engage, using a specific scenario to guide their interactions and discussion. Those behind the scenes, the course instructor and the Mursion interactor, determine what scenario each teacher candidate will encounter, the level of intensity of the interaction, and whether or not the interaction will end with a positive resolution or with a need for further discussion.

Mixed-Reality and Simulated Experiences

Simulated environments for clinical practice have been widely used in various professions. Simulated learning environments are often a standard of practice in business, medical and nursing fields, and the military. It stands to reason that mixed-reality environments have a vital role to play in the development of aspiring teachers. In teacher preparation, the use of artificial environments and simulated practice allows the learner to practice pedagogical skills in a highly personalized, safe, yet realistic environment (Dieker et al., 2014).

Simulated Experiences in Teacher Preparation

Prior to the interaction, teacher candidates are assigned a specific scenario or vignette. They are directed to read through the vignette and plan for discussion topics. Additionally, they are required to draft questions and possible resolutions for the scenario they are assigned. The critical part to this experience is that, while the teacher candidates know what they are coming to the meeting to discuss, they do not know how the parent feels about the topic or how the parents will respond, nor do the candidates know the outcome of the meeting. Arguably, this is the most realistic part of the experience.

A key quality for any aspiring teacher’s success is to be highly reflective. In teacher preparation, there is a focus on continuous improvement and reflection on the aspiring teacher’s practices. Questions such as “What worked?,” “What could I have done differently?,” and “What are my next steps?” help focus aspiring teachers into the continuous improvement cycle. After the experience, teacher candidates receive feedback and coaching from their instructor. Additionally, teacher candidates can record their sessions and share with their classmates for peer-to-peer feedback and discussion. This experience provides teacher candidates with the opportunity to implement the skills learned in the course as well as to observe the interactions of their peers. The multi-layered feedback builds their tool kit for positive interactions with families and caregivers.

While the interactions are simulated, they are delivered in real time so they are authentic, personalized, and highly interactive. The unpredictability and unknowns of the meeting simulate real-life interactions between teachers and families. Since most family–school interactions are private and protected, finding opportunities for teacher candidates to implement the skills they are learning is almost impossible without this technology.

Impact on Aspiring Teachers' Confidence

While the simulation is used in conjunction with different courses, the experience for this study was aligned with content focused on family partnerships. Content is based on developing and sustaining professional relationships and building collaborative practices with families. Aspiring teachers are given twelve weeks of content and in-class activities to build their knowledge base of best practices. Additionally, aspiring teachers study historical perspectives of family–school relationships, effective collaboration and communication practices, and diverse perspectives. Aspiring teachers also review several case studies to assess and evaluate the practices described. In many cases, aspiring teachers must use a critical lens to determine if best practices were used, what changes should have been made, and how to improve what was implemented. This establishes the knowledge base for effective communication in a parent–teacher conference setting. The next step for aspiring teachers is to implement their knowledge during a live simulation within the artificial environment.

Method

Process of Implementation

Prior to the experience, aspiring teachers were asked to rate their confidence level, or sense of efficacy in their ability to conduct an effective parent–teacher conference. They were also given the opportunity to discuss specifically what area they feel the strongest in and what area they feel most in need of development. This information was used mainly for the peer reviews in which aspiring teachers would share their experiences for feedback and growth plan development. The simulations were recorded and used for self-reflection after they were completed. Aspiring teachers were then assigned a vignette that they would prepare for in order to conduct the parent–teacher conference. An overview of each vignette can be found in Table 1. The topics of the vignettes ranged from parent-led issues to teacher-led issues. Some were academic in nature and some focused on the social issues that the student was experiencing. One vignette addressed specific home–school issues that can be potentially tricky to navigate. The six vignettes gave the

aspiring teachers content to plan for, prepare, and engage with a parent or guardian within the artificial environment. As with a parent–teacher conference that happens in reality, teachers prepared for it based on what they learned through the coursework. Aspiring teachers applied knowledge such as best practices for effective communication, used tools to build parity, and offered positive, supportive language.

When teachers conduct conferences in reality, they cannot predict the outcome or how the flow of the conference will go. They can be prepared; however, it is unlikely that they can prepare for every possible outcome. It is more likely than not that something will come up that they did not prepare for, and they will have to think on their feet. In an effort to mimic reality, when aspiring teachers engage in a parent–teacher conference in an artificial environment, they are unaware of how the conference will end. Aspiring teachers do not know whether or not there will be a positive resolution or if there will be a resolution at all. The determination of the outcome of the conferences is set by the course instructor and agreed upon with the Mursion interactor. This is established ahead of time prior to the actual interaction. Aspiring teachers are aware that the outcome of their interaction may or may not be positive. They are aware of the range of possibilities; however, there is no guarantee. Aspiring teachers are aware that their conference may not actually have a resolution. In fact, some conferences end simply by agreeing to have another meeting. This unknown is what creates the reality within the artificial simulation. The inclusion of the unknown is what makes the simulation so valuable as part of a comprehensive teacher preparation program. It is what helps aspiring teachers develop the flexibility and think-on-your-feet skills needed in these types of professional experiences.

Table 1

Vignette Descriptions

	Vignette Description and Overview for Conferences
Vignette One	You have asked to meet with Adam Ruoti to secure support from him that Ethan should attend reading tutoring sessions over the summer because you are worried about "summer slide."
Vignette Two	You have asked to meet with Lisa Walker to discuss Jasmine's poor grades. Once a strong student, Jasmine's grades have begun to slip.

Vignette Three	Adam Ruoti has requested a conference because he believes the curriculum isn't challenging enough for Ethan. Mr. Ruoti feels as though Ethan is bored and his grades will suffer if he's not challenged enough.
Vignette Four	You have asked to meet with Lisa Walker to try and refocus Jasmine more on school and less on the Flag Team. While Jasmine loves Flag Team, you want her to find a better balance and work harder in school.
Vignette Five	You have asked to meet with Lisa Walker because you have noticed her divorce/custody battle is having a negative effect on Jasmine. Both parents have been focused on "digging up dirt" about each other. For example, Lisa emailed you recently on a cool fall day to make sure her former spouse sent Jasmine to school with a jacket.
Vignette Six	You have asked to meet with Adam Ruoti because Ethan has been going to the nurse's office a lot. Also, Adam has frequently allowed Ethan to go home from school early. Due to this, Ethan's grades have begun to suffer.

Pre-Simulation

Prior to engaging in the simulation, aspiring teachers were asked to rate their confidence in their ability to conduct an effective parent–teacher confidence. Specifically, the survey asked, "On a scale of 1–5, rate your efficacy, or confidence level in conducting an effective parent–teacher conference" (1 = not at all confident; 5 = extremely confident). The pre-simulation self-assessment of the aspiring teachers (n=10) ranged from a low score of 1 to the highest self-assessment score of 3. The average score was 2.5. Students generally reported being nervous despite having the content for best practices. Informal discussions indicated that one of the largest sources of their lack of confidence was the feeling of the unknown, or the unpredictability of how the meeting would progress. However, this is generally seen as a good thing. The fact that the aspiring teachers were nervous about a simulated event indicates that they were suspending disbelief, which has been established as a critical component for the simulation within the artificial environment to be successful. Prior to the simulations, aspiring teachers suspended their disbelief

and prepared for the meeting. Based on the overview provided in the vignette description, each aspiring teacher had to collect information, prepare discussion points, and organize any pertinent resources or follow-up information that could be provided to the parent after the meeting.

Post-Simulation

After engaging with the artificial environment, aspiring teachers were asked again to rate their confidence in their ability to conduct an effective parent–teacher conference. The post-simulation survey asked, "Now that you have experienced the simulation, on a scale of 1–5, rate your efficacy, or confidence level in conducting an effective parent–teacher conference" (1 = not at all confident; 5 = extremely confident).

Findings

After experiencing the simulation in the artificial environment, the confidence level of aspiring teachers improved. Their efficacy, or confidence in their abilities to conduct an effective parent–teacher conference generally went up. In contrast to their feelings of confidence prior to the experiences, aspiring teachers' scores on their self-assessment after the simulation ranged from the lowest score of a 3 and the highest score of a 5. The average score after the simulation was a 4.0. This improvement in scores indicates an increase in aspiring teachers' confidence in their ability to conduct an effective parent–teacher confidence. Both the range of scores (lowest to highest) as well as the average score showed an increase in aspiring teachers' confidence in their ability to conduct a conference. Essentially, aspiring teachers felt more confident in their ability after the simulation in the artificial environment than they did before the experience.

To ensure continuous improvement and reflection, after the simulation aspiring teachers had several steps to take. First, aspiring teachers had to watch their simulation in its entirety and self-reflect on their interaction. They were provided a rubric with guided questions to prompt their thinking and critique the way they engaged with the parent. It was important for them to focus primarily on what they did well and connect those actions back to their coursework and understanding of best practices. Additionally, the aspiring teachers were asked to highlight the areas that were in need of improvement and reflect on the specific actions or behavior. After the aspiring teachers identified the areas of improvement, they were asked to develop a plan of action outlining a plan for improvement. This may have included a better method of communication, response, or even the use of simple, non-verbal communication. In the event a simulation did not

go well—for example, if an aspiring teacher did not successfully engage in the simulation or had an incomplete experience—they would still develop an action plan for improvement. The benefit of using the artificial environment and simulation is that this aspiring teacher could easily adopt the action plan and try again; by re-engaging in the simulation. Because the platform environment is artificial, the aspiring teacher could essentially start from scratch.

Discussion

The results of the study reinforce Kolb's theory of the ideal process for learning. In this instance, the implementation of concrete experience, active experimentation, conceptualization, and reflection resulted in an overall increase in aspiring teachers' confidence and sense of self-efficacy. Providing aspiring teachers the opportunity to practice new skills in a safe environment improved their confidence in their ability to conduct a parent–teacher conference.

While there is arguably a predominance of negativity circulating around the topic of artificial intelligence, there is a sound argument for the positive potential of this technology. The positive applications for artificial environments in teacher preparation are potentially countless. Owing to their flexibility and customizability, using artificial environments can provide novice teachers the opportunity to develop new skills and gain the necessary confidence to become effective teachers.

The increase in confidence level, or aspiring teachers' sense of efficacy in their abilities, from pre- to post-simulation, indicates that the experience within the artificial environment had a positive impact. Any time aspiring teachers can practice a skill more than once will provide them the opportunity to grow in skill development and confidence in their abilities. Using an artificial environment and simulated experience provides aspiring teachers that opportunity in a safe and flexible atmosphere.

The use of artificial intelligence in teacher preparation should continue to be researched to prove its benefits of flexibility, customizability, and portability. When used effectively, AI can provide meaningful experiences for aspiring teachers to practice within an environment that meets the specific needs of individuals and programs. Artificial environments also offer positive potential to be used in several other parts of a teacher preparation program. Artificial environments can be used for aspiring teachers to practice direct classroom teaching, including delivering new content

and practicing a specific pedagogical skill. Additionally, with the aid of AI, aspiring teachers can practice classroom management or specific behavior management techniques.

Research should be continued in the use of artificial environments for adult interactions. Parent or family and school communications will continue. Research shows that developing strong family and school relationships improves outcomes for students; therefore, this content and experience will likely remain a part of the teacher preparation program curriculum. Moreover, \ other adult interactions could be strengthened through the use of artificial environment and simulation, as well.

Conclusion

Continued research is suggested on other ways the technology can be utilized. One suggestion is to implement the use of artificial environments and simulations in the Educational Diagnostician certification curriculum. A main component of the Educational Diagnostician process is to meet with students and families to discuss evaluation results. As is familiar to general teacher preparation programs, the ability to engage with families and practice skills, thereby developing confidence, can be limited due to confidentiality restraints; typically, evaluation meetings in which results are discussed are confidential. It is likely that the use of this artificial environment and simulations would serve as a benefit to pre-service Educational Diagnosticians in their practice and skill development, specifically by engaging in real-time conversations with families to discuss results of assessments.

Most discussion around artificial intelligence appears to be negative. While the wide-reaching concern over the negative side of artificial intelligence is understandable, of positivity can be discovered and cultivated, and the resulting applications could have a nearly limitless positive impact on teacher preparation and beyond.

References

Cardona, M. A., Rodriguez, R. J., & Ishmael, K. (2023). *Artificial intelligence and the future of teaching and learning: Insights and recommendations*. U.S. Office of Educational Technology. https://www2.ed.gov/documents/ai-report/ai-report.pdf

Dede, C. (2009). Immersive Interfaces for Engagement and Learning. *Science*, *323*(5910), 66–69. http://dx.doi.org/10.1126/science.1167311

Dieker, L. A., Hynes, M. C., Huges, C. E., Hardin, S., & Becht, K. (2017). TLE TeachLivE™: Using technology to provide quality professional development in rural schools. *Rural Special Education Quarterly*, ***34***(3), 11–16.

Dieker, L. A., Rodriguez, A., Lignugaris/Kraft, B., Hynes, M. C., & Huges, C. E. (2014a). The potential of simulated environments in teacher education: Current and future possibilities. *Teacher Education and Special Education*, ***37***(1), 21–33.

Dieker, L. A., Straub, C. L., Hughes, M. C., & Hardin, S. (2014). Learning from virtual students. *Educational Leadership, **71***(8), 54–58.

Henderson, A. T., & Mapp, K. L. (2002). *A new wave of evidence: The impact of school, family, and community connections in student achievement*. SEDL. https://sedl.org/connections/resources/evidence.pdf

Hoerr, T. R. (2022). *Making parent–teacher conferences matter—for both parties.* ASCD. https://www.ascd.org/blogs/making-parent-teacher-conferences-matter-for-both-parties

Jamal, A. (2023). The role of artificial intelligence (AI) in teacher education: Opportunities & challenges. *International Journal of Research and Analytical Reviews (IJRAR)*, *10*(1), 139–146. https://www.researchgate.net/publication/369384184_The_Role_of_Artificial_Intelligence_AI_in_Teacher_Education_Opportunities_Challenges

Kolb, D. A. (1984). *Experiential Learning: Experience as the Source of Learning and Development.* Englewood Cliffs, NJ: Prentice Hall. http://academic.regis.edu/ed205/Kolb.pdf

Mapp, K.L., Henderson, A.T., Cuevas, S., Franco, M., Ewert, S. (2022) *Everyone Wins! The Evidence for Family-School Partnerships and Implications for Practice.* New York, NY: Scholastic Incorporated.

Moran, M. T., & Hoy, A. W. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education*, *17*(7), 783–805.

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