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*J. Kenneth Young and Casey Graham-Brown*

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These manuscripts have been peer-reviewed, accepted, and endorsed by the International Council of Professors of Educational Leadership as a significant contribution to the scholarship and practice of school leadership and K-12 education.

## From the Editors

Welcome to the latest issue of *Educational Leadership Review*. This edition brings together a diverse collection of articles that delve into critical and contemporary issues in the field of education. Our contributors in this issue have explored a range of topics including technological Integration in education, teacher well-being, Special Education needs, educational equity, dual eligibility in English learners, work-life balance for school leaders, and ethical preparedness.

We hope this issue inspires and informs your practice as educational leaders. Each article offers valuable perspectives and practical recommendations that can help you navigate the complexities of educational leadership in today's dynamic environment.

Once again, we want to thank everyone who submitted manuscripts for consideration. Your consideration of *ELR* as the journal of choice for disseminating your research is greatly appreciated. We also want to thank the following reviewers who gave of their time to provide important feedback to our authors and assured that we continue to provide you with quality research in our journal:

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|----------------------|--------------------|-------------------------|
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| Dr. Denver Fowler    | Dr. Ireh Madu      | Dr. James Zoll          |

Finally, I (Ken Young) want to thank Dr. Casey Graham-Brown for once again helping shoulder the editorial load for our journal. It is a much better journal because of you and your continued involvement.

Thank you for your continued support and engagement with our journal.

Warm regards,

Dr. J. Kenneth Young  
Editor

Dr. Casey Graham-Brown  
Assistant Editor

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# Artificial Intelligence, Educational Leadership, Knowledge Production, and Transfer: A New Infrastructure

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*Artificial Intelligence (AI) yields tremendous opportunities for educational leaders who are forward-thinking, adaptable, updated, and aligned with new technologies (Milton & Al-Busaidi, 2023). AI necessitates leaders, particularly those leaders in educational domains, to undergo significant paradigmatic shifts in their cognitive frameworks, abandoning conventional leadership paradigms to foster interconnected, collaborative networks of diverse, self-governing teams. Although the historical progression of civilization has seen a consistent intertwining of knowledge and technology, the primary hindrance often lies in the readiness and inclination of leadership to adapt. These researchers conduct a theoretical and analytical examination to comprehend the evolving responsibilities of leaders within Higher Education Institutions and the transformative impact of AI integration on knowledge creation.*

*Keywords:* artificial intelligence (AI), data, educational sector, higher education, infrastructure, knowledge production, leadership

## Background

The introduction and use of Artificial Intelligence (AI) significantly influence leaders and leadership (Milton & Al-Busaidi, 2023; Peifer et al., 2023). Regardless of leadership style, leaders' knowledge across the social sciences is now combined with AI knowledge machines to reconfigure how knowledge is generated, circulated, and used (Meyer & Schroeder, 2015). Developing a new knowledge infrastructure is critical as it will shape and generate knowledge reinforcing specific interests and power relations (Edwards et al., 2013). Leaders who have the ability and opportunity to make choices about data entry may control not only knowledge production but also the “truth” of their own beliefs (Ruppert, 2018), as AI cannot be relied upon to obey human conventions of rationality (Brusseau, 2022).

The intersection of AI, educational leadership, and knowledge production can be understood through complementary theoretical frameworks. Meyer and Schroeder's (2015) conceptualization of digital knowledge production provides a foundation for understanding how AI systems generate, process, and disseminate information within educational contexts. This perspective aligns with Edwards et al.'s (2013) work on knowledge infrastructures, contributing to understanding the complex networks of data, algorithms, and human agents that comprise AI-enhanced leadership. When applied to educational leadership, these theories suggest that AI tools augment leaders' decision-making capabilities and fundamentally reshape the nature of knowledge creation and distribution within educational institutions. For instance, AI-powered analytics platforms, viewed through Meyer and Schroeder's framework, become not just tools for data analysis but active participants in the co-creation of knowledge about student performance, resource allocation, and andragogical effectiveness. Similarly, Edwards et al.'s emphasis on the sociotechnical nature of knowledge infrastructures highlights how integrating AI into leadership practices necessitates reconfiguring organizational structures, policies, and human-machine interactions. This theoretical synthesis explains how AI technologies are not merely additive to existing leadership paradigms but transformative, creating new modes of knowing, deciding, and leading in educational settings.

Developing new knowledge infrastructures has been a focus of interest over the last three decades. In the late 1990s, the National Science Foundation developed programs focused on knowledge and distributed intelligence. Later, an initiative called Introduction 2 Knowledge Infrastructures: Intellectual Frameworks and Research Challenges and Human and Social Dynamics (late 2000s) was launched to encourage researchers to experiment with new modes of knowledge production and dissemination, as well as to study how such forms emerge (Edwards et al., 2013).

In the 21<sup>st</sup> century, transformations have occurred in our systems for generating, sharing, and disputing human knowledge (Williamson, 2020). In education, internet technologies such as social media, Wikipedia, big data, open-source software, ubiquitous computing (Edwards et al., 2013), and more recently, Chat GPT4, AWS (Amazon web services), and Alexa (now compatible with more than 100,000 products) have altered the basic mechanics of knowledge production, circulation, and ultimately power. Now, AI in education (AIED), learning analytics, education data mining, and education data science have combined into forms of analysis and knowledge production, which has empowered new agencies and given

rise to questions about data ownership and its capacities for knowledge production and transference (Williamson, 2020).

Utilizing external desk research methodology, these researchers aim to (a) generate insights about the challenges and requirements for Higher Education Institutions (HEI) leaders and leadership that arise from the integration and use of AI and (b) explore the evolving knowledge infrastructures in the Higher Education (HE) domain to aid understanding of the immense transformations currently underway in how knowledge is produced, transferred and disputed.

### **Emerging Higher Education Model**

We live in a time of change that profoundly challenges our understanding of the fundamental processes by which knowledge is created, debated, and transferred. The concern is that institutional responses to this new environment are inconsistent and lack long-term vision and strategy. Significant benefits will accumulate for Higher Education Institutions (HEIs) that find effective ways to meet the challenge, and doing so will require new visions of their place in more extensive knowledge infrastructures.

New practices are emerging. For example, an innovative HEI model has appeared in Florida. The University of Florida (UF) advanced to No. 5 in the 2023 U.S. News and World Report list of the best public colleges in the U.S. due primarily to its visionary leadership for infusing its teaching and research with AI-generated tools. Created knowledge powered by UF's system, HiPerGator AI, the eighth most powerful supercomputer in the U.S. and 22nd most powerful global supercomputer, will be shared by UF through the state university system, creating an AI hub for others to enhance education and research.

Successfully leveraging AI has given UF a competitive edge in the state's public/private higher education marketplace. For example, faculty have secured \$10 million in AI-specific research grants, secured a further \$20 million a year from the Florida Legislature, and are recruiting 100 new faculty with AI expertise (University of Florida, Artificial Intelligence, 2023). UF's visionary leadership has placed them at the forefront of AI education in the state. Florida Department of Education (FDOE) is no longer going out of state for professional development providers. Instead, it has partnered with UF to provide professional development (PD) coaching and assessment in AI for teachers designated as AI teachers.

At the K-12 level, the University's College of Education is designing a framework for Florida public schools' AI coursework, modeling them after the National Science Foundation's national guidelines for teaching AI in elementary and secondary schools centered around Five Big Ideas of AI: perception, representation and reasoning, learning, natural interaction, and societal impact (AI4K12.org, 2023).

Additionally, the university has been tasked with establishing the standards that K-12 teachers must master to gain Florida Department of Education (FDOE) certification to teach AI. As part of teacher-state certification, the following AI courses must be passed:

1. AI in the World;
2. Applications of AI;
3. Procedural Programming for AI; and

#### 4. Machine Learning for AI.

Source: *Artificial Intelligence, University of Florida, 2023*

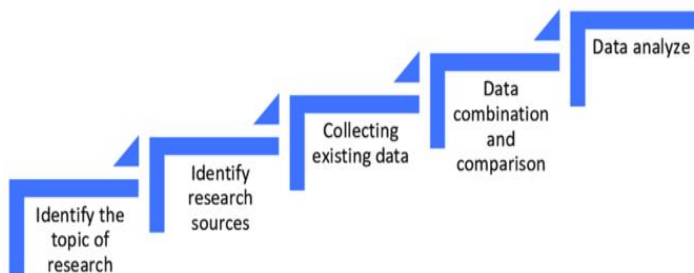
Historically, curriculum development for students and teacher preparation standards in Florida were crafted by several diverse committees consisting of expert scholars and practitioners from all areas of the state. However, in this case, curriculum development and a framework for learning standards emanate from one institution, illustrating how the university has become a hub of command and control over the creation, analysis, and exchange of data, thereby establishing a power base within the state of AI knowledge production and transference.

### Method

The external desk research method was utilized to explore (a) how the role of HEI leaders will change with the use of AI, (b) what new HEI leadership competencies will be required, (c) how knowledge infrastructures change, and (d) will new knowledge infrastructures create new knowledge power bases? (see Figure 1).

**Figure 1**

*External Desk Research Methodology*



Desk research (secondary study) is a method that consists of analyzing available data sources, including their compilation, mutual verification, and processing (Nooraini, 2013). It consists of five consecutive steps covering the process, from defining the research objective to performing the analysis. The detailed process is presented in Figure 1. To ensure high-quality research, various databases were analyzed for the selection of literature. The broad repertoire included open-access databases, libraries of universities, databases of consultancies and conferences, and online scientific databases. The research was based on different search strings. These included "Artificial Intelligence AND Leadership," "Artificial Intelligence AND Leadership Competencies," "Artificial Intelligence AND Knowledge Production," "Artificial Intelligence AND Power," and "Artificial Intelligence AND Human Cognition."

This research method answers the questions "What?", "Why?" and "How?" It is an appropriate method for preliminary research into a developing phenomenon. Since AI and human cognition knowledge development is such a phenomenon, it was decided to use this method to answer the following key questions:



1. How will the role of Higher Education Institutional (HEI) leadership change with the use of AI?
2. What will be the new set of competencies required by Higher Education Institutional (HEI) leaders?
3. How are knowledge infrastructures changing?
4. How are knowledge infrastructures likely to transition current knowledge power bases?

## **Results of Research**

### ***How will the role of Higher Education Institutional (HEI) leadership change with the use of AI?***

AI's successful implementation and use depend on leaders with vision, skills, and competencies to implement and lead the change process toward a newly imagined future (Jeske, 2019; Langeveldt, 2024; Peifer et al., 2022; Ribeiro, 2021; Verhezen, 2018) but more importantly, all leaders will need a solid moral compass (Metz, 2023). The use of AI will not only add another component to the leadership process due to changing leader tasks but will also require a total leadership re-assessment (Verhezen, 2018). Leaders will have to decide which activities will continue under a human remit and which are to be carried out by the AI to avoid a dystopian future, as recently highlighted by Hinton, regarded as the godfather of AI (Metz, 2023).

As the author of a recent Amrop report, Verhezen (2018) argued, leaders will need to transition from smart to wise leadership because wise leaders do not only create and capture vital economic value but also build more sustainable and legitimate organizations (para.1) through ethical and moral decision making. Wise leaders are likelier to make AI-generated tool adoption decisions based on well-developed evaluation strategies. Cognizant of the fact that evaluating the performance of human experts as compared to AI technologies requires new competencies and skills (Lebovitz et al., 2021). The new breed of wise(r) leaders will (a) embrace and cultivate the collaboration between humans and AI, transforming the workforce with new skills, (b) envision a more meaningful future, and (c) instill profitable progress while making society a better place to live. Verhezen (2018) identified several facets of wise leadership applicable to a collaboration between humans and AI, such as (a) embracing ambiguity and complexity, (b) taking practical action, (c) in a context-sensitive way, (d) adapting a broader socio-ethical, environmental perspective, and (e) transcending biases.

If AI-generated tools are implemented at scale in knowledge-intensive contexts such as HEIs, organizational and professional learning processes may disappear if AI outputs dominate decision-making contexts and erode experts' tacit know-how. Once AI tools are accepted and perceived as accurate, fundamental organizational changes may follow; AI outputs may influence the social and technological context that generates the data on which the tool is trained (Lebovitz et al., 2021).

### ***What will be the new set of competencies required by Higher Education Institutional (HEI) leaders?***

In the 21<sup>st</sup> century, the requirements for leaders and their competencies will increasingly change (Jeske, 2019; Langeveldt, 2024; Peifer et al., 2022; Ribeiro, 2021). Changes will be seen

in professional, methodological, personal, and social competencies (Peifer et al., 2022). Additionally, leaders will need to know the entire process to weigh the risks of their own decisions (Peifer et al., 2022). Hinton (2023) pointed out that leaders must behave ethically and evidence a solid moral compass rather than deep knowledge of the domain to ensure that AI does not learn unethical behaviors from the data analyzed (Metz, 2023)

The effective handling of the change process will be the leader's focus (Peifer et al., 2022). Leaders will need individual skills to form and lead a team and the competencies to design change processes and manage the ensuing complexity. According to Forbes (2023), leaders will require:

1. *Vision and Strategy*
  - a. Leaders must first understand AI's potential benefits and risks and how it fits into the organization's strategy.
  - b. Leaders must communicate intentions and goals to the organization and garner support from stakeholders, ensuring that everyone shares the same vision.
2. *Investment and Funding*
  - a. Leaders must allocate sufficient resources and foster the right talent for AI initiatives to succeed.
3. *Collaboration and Partnership*
  - a. Leaders must collaborate with other organizations, including technology vendors and research institutions, to stay up-to-date with AI trends and innovations.

According to Ribeiro (2021), a leader in the "new era" must never lose sight of the human component and must be able to bring into focus the need to (a) humanize leadership, (b) advance innovation, (c) stimulate future thinking, (d) be a data-driven leader, and (e) ensure intelligent risk management:

1. *Humanize Leadership*

Empathy, understanding, analyzing, and anticipating what consequences or impact a situation may have on behavior, performance, or reactions.
2. *Advance Innovation*

Ability to make quick decisions based on AI.
3. *Stimulate Future Thinking*

Take advantage of data to make intelligent decisions foreseeing the future.
4. *Data-Driven Leadership*

Agility to turn AI insights into greater decision-making intelligence and to discern between accurate and valuable data and erroneous data.
5. *Intelligent Risk Management*

Leaders must know how to propose risk models based on data, statistics, variables, and correlations.

*\*Collaboration skills, effective communication, and inclusion (Ribeiro, 2021).*

Smet et al. (2023) identify six leadership practices that can help to drive the required leadership shift resulting from AI:

1. Encouraging and empowering teams.
2. Fostering horizontal transparency and collaboration throughout the network.
3. Moving from a hierarchy of individual leaders to networks of leadership teams.
4. Operating in short cycles of decision, action, and learning.
5. Regularly reprioritize and look forward.
6. Recruit and engage colleagues excited by change.

In a literature review focused on AI in education and educational leadership, Langeveldt (2024) identified the following competencies and critical abilities that educational leaders must develop for the AI era:

1. Data literacy- the ability to understand and use data in different forms and situations (Davenport & Fouty, 2023).
2. Computational thinking-the ability to generate and solve problems using computer science concepts and methods such as abstraction, decomposition, and algorithms (Wing, 2023).
3. Digital leadership- the ability to guide and oversee the use of technology and data in education (Sheninger, 2019).
4. Ethical awareness-the ability to recognize and address the ethical problems related to using AI in education, like making sure it is fair, transparent, accountable, and respects privacy (Bostrom & Yudkowsky, 2023).

The norms for what can count as "knowledge" are changing, and leaders need the skills and expertise to question, analyze, and evaluate AI data (Davenport & Fouty, 2023). Leadership agility will be a significant asset, as will soft skills such as humility, adaptability, vision, and constant engagement (Watson, 2023). Strong emotional and social intelligence will be necessary for leaders to understand and gauge the impact of their decisions on the people around them (Ribeiro, 2021; Watson, 2023). Leaders who develop these new competencies will have the capacity to embrace AI and apply new principles and practices within their teams and throughout their organization (Smet et al., 2023).

### ***How are knowledge infrastructures changing?***

AI is knowledge produced from pattern recognition, which contrasts with human knowledge production, viewed as being created from sequential reasoning (Brusseu, 2022). AI systems attempt to automate knowledge work by learning from data without relying on the involvement of domain experts (Agrawal et al., 2018). Therefore, AI differs from traditional knowledge systems in that it produces knowledge more or less independent of domain experts (Peifer et al., 2022). Specifically, these systems promise to independently discover "truthful" knowledge (Henriksen & Bechmann, 2020). By transforming data into knowledge, AI is positioned as a superior means for creating insights, suggesting that machines can produce

knowledge independent of domain experts to improve understanding and, therefore, inform action (Agrawal et al., 2018).

This new paradigm implies that knowledge will be created differently from all that civilization has known and that AI knowledge infrastructures will shape understanding. In a decade-old extensive review of literature in science and technology studies, Edwards (2010) defined knowledge infrastructures as:

Robust internetworks of people, artifacts, and institutions generate, share, and maintain specific knowledge about the human and natural worlds. Like all infrastructures, they are composed of many systems and networks, each with unique dynamics ... [and] embed social norms, relationships, and ways of thinking, acting, and working. As a corollary, when they change, authority, influence, and power are redistributed. (Edwards, 2010, p. 23)

Scientific literature 2010, identified AI knowledge as a continuous, human-guided, and adaptive process. However, after a decade of rapid change, tensions are arising between AI and human cognition processes because the AI infrastructure of today produces new kinds of datafied knowledge, redistributing authority, influence, and power in education. As human expertise and AI interact to shape knowledge production, a new hybrid thinking infrastructure is evolving, which can shape scientific thought and knowledge, specifically concerning shaping educational policymaking and school practices (Sellar & Gulson, 2019).

### ***How are knowledge infrastructures likely to transition current knowledge power bases?***

Researchers have suggested that the dynamic human way of knowing transforms through humans “interacting, discovering ‘truth,’ justifying observations, defining problems, and solving them” will disappear if AI tools’ explicit outputs overshadow experts’ knowledge processes (Lebovitz et al., 2021). As AI-generated data tends to be proprietary and not broadly shared, there may be an increasing power chasm between HEIs accessing the AI output and HEIs that cannot. Systems that develop and elevate new forms of knowledge may demote or undermine others, redistributing influence and power (Edmunds et al., 2013).

In 2018, the Select Committee on AI was created to advise the White House on interagency AI priorities and improve the coordination of Federal AI efforts to ensure continued U.S. leadership in this field (Executive Office of the President, 2018). The National AI Act of 2020 (DIVISION E, SEC5001) provided for a coordinated program across the entire Federal government. The mission of the National AI Initiative is to:

- (1) ensure continued U.S. leadership in AI research and development,
- (2) lead the world in the development and use of trustworthy AI in the public and private sectors,
- (3) maximize the benefits of artificial intelligence systems for all American people, and
- (4) prepare the present and future U.S. workforce for the integration of AI systems across all sectors of the economy and society.

Source: The National Artificial Intelligence Initiative Act of 2020 (DIVISION E, SEC. 5001)

The National AI Initiative provides an overarching framework to strengthen and coordinate AI research, development, demonstration, and education activities across all U.S. Departments and Agencies in cooperation with academia, industry, non-profits, and civil society organizations. The work under this Initiative is organized into six strategic pillars

– Innovation, Advancing Trustworthy AI, Education and Training, Infrastructure, Applications, and International Cooperation.

## Discussion

The interplay between AI, educational leadership, and knowledge production is complex. However, this research provides a roadmap for HEI leadership in navigating the ethical integration of AI. Our findings underscore the critical role of visionary leadership in successfully introducing and leveraging AI-generated tools to develop organizational knowledge. The research highlights the need for HEI leaders to master hard skills (e.g., cloud computing and data flow management) and soft skills (team management) to integrate new technologies in higher education effectively.

### Implications for Practice:

1. **Leadership Development:** HEIs should prioritize development programs focusing on technological competence and adaptive leadership skills. This dual focus will enable leaders to make informed decisions about AI implementation while managing the human aspects of organizational change.
2. **Curriculum Redesign:** The potential of AI to facilitate Precision Education (PE) calls for a reevaluation of curriculum design. HEIs should consider how to balance personalized learning experiences with the development of broader skills, such as adaptability and critical thinking.
3. **Ethical Considerations:** As highlighted by the rapid development of systems like ChatGPT, there is an urgent need for HEI leadership to establish clear ethical guidelines and policies governing the use of AI in educational settings. This includes addressing privacy, data security, and the potential biases in AI-driven decision-making processes.
4. **Collaborative Governance:** Given the global implications of AI regulation, HEIs should actively participate in policy discussions and collaborate with government bodies to shape AI governance in education.
5. **Interdisciplinary Approach:** The complex nature of AI integration in education necessitates an interdisciplinary approach. HEIs should foster collaboration between departments of education, computer science, ethics, and social sciences to address the multifaceted challenges and opportunities presented by AI.

Moldenhauer et al. (2018) suggested the impact of leadership and AI, postulating that only through the actions of leaders would AI continue to be funded, created, and developed. Nicolae et al. (2018) examined these challenges and proposed changes to what we require of our higher learning institutions. Although these researchers' work was focused on Romanian universities, their recommendations can inform a path forward for everyone in higher education administration, specifically, how the proliferation of AI will facilitate the need to reevaluate and generate a workable and realistic vision for the mission of higher education. Influential leaders responsible for developing AI systems must diligently link those efforts to continuously developing knowledge management systems, ensuring those systems remain

inclusive with clear initiatives while incorporating AI functions. Tlili et al. (2023) examined how AI, specifically ChatGPT, could be transformative in educational settings. The human-like responses generated by the Microsoft-backed ChatGPT have captured the world's attention, calling for needed rules and regulations to be quickly disseminated (Chan, 2023). Singh et al. (2022) pointed out that AI has the potential to be used in providing feedback on assignments to students more quickly, identify the unique learning style and preference of each student, and specifically tailor content to meet the needs of each student individually. Further, Singh et al. (2022) proposed that the ideal AI system would analyze student learning styles and emotional states and take the initiative to augment those existing characteristics.

A recently penned opinion editorial published in the New York Times by the chair of the U.S. Federal Trade Commission, Ms. Lina M. Khan, establishes her thought that although the potential of AI is still up for debate, there is little doubt that the technology will be disruptive. Recent comparisons have been made with other disruption effects, such as nuclear fusion and "Web 2.0." In both cases, control meant power, and attempts at regulation were restrictive due to being reactive rather than proactive.

Outside the United States, the governments of the European Union (EU), disturbed by the rapid pace of AI's rise and deployment, are responding to increasingly vocalized fears of the implications of the technology and quickly working to introduce rules to govern these innovations. Although the first rules proposed by the bloc of 27 member nations were introduced two years ago, those rules only barely mentioned general-purpose applications such as chatbots. As the first to be adopted by an agreement of governments, the EU's AI Act could become the de facto global standard, leaving the U.S. government out of policy-shaping conversations that could impact how the technology is ultimately used and governed.

Some tech leaders have called for a "pause" on the development of AI to allow humanity to assess the risks involved with the continued growth of these systems, adding their signatures to an open letter to all laboratories working in the field. The letter urged governments to step in and lead the charge in developing shared safety protocols that guarantee AI systems are safe beyond a reasonable doubt (Hart, 2023). Others have rejected the call to pause the work, pushing back by asserting that doing so would not "solve the challenges ahead," offering instead the thought that people focus on how to use the technology and identifying the "tricky areas" (Faguy, 2023).

### **Future Research Recommendations**

Ongoing research is required to (a) analyze the effects of emerging AI regulations (national and international) on educational practices, innovation, and international collaborations in HE, specifically in relation to policy consistency at the national and international level, (b) to examine the evolving dynamics of human-AI collaboration in educational settings, focusing on how to optimize the synergy between human expertise and AI capabilities in teaching, administration, and research.

## Conclusion

The proliferation of AI will facilitate the need to reevaluate and generate a workable and realistic vision for the mission of higher education (Moldenhauer et al., 2018). HEI leaders must ensure that the continuous development of knowledge management systems remains inclusive with clear initiatives while incorporating AI functions. This transformative process extends beyond mere technological integration; it necessitates a fundamental reassessment of HEIs core purposes and methodologies. As AI systems become more sophisticated, they challenge traditional notions of knowledge acquisition, skill development, and the role of educators.

HEI leaders must expand their roles to include the development of social competencies and new skills crucial for the AI era. This expansion includes crafting a realistic vision for higher education's mission in the age of AI (Moldenhauer et al., 2018) and ensuring the continuous development of inclusive knowledge management systems with clear AI-integrated initiatives. Such an approach necessitates a comprehensive reassessment of leadership strategies (Verhezan, 2018). Effective leaders will need to master not only the technical aspects of AI integration but also foster an institutional culture that is adaptable and forward-thinking. This multifaceted approach to leadership in higher education is essential for navigating the complex landscape shaped by advancing AI technologies.

Knowledge-based education, once appropriate for the industrial age, might not be suitable for the era of AI. Instead, future iterations of higher education must build on and include the skills of independent thinking, values, and teamwork skills. The responsible development and future implications of AI innovations are challenges that global leaders are now discussing. In America, seven new National AI Research Institutes (Ray, 2023) are in the developmental process, including a specific brief to focus on the education sector (whitehouse.gov, 2023). Knowledge and technology have gone hand in hand throughout civilization. The impediment far too frequently is the preparation of leadership and their willingness to lead.

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# Using the PERMAH Model to Inform How School Leaders Can Promote Teacher Wellbeing

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## **Abstract**

*The purpose of this study was to measure teacher well-being and assess specific ways administrators affect the physical and mental health of staff. A modified PERMAH Workplace Survey was administered in response to a significant decline in annual climate survey results post-pandemic. Key findings were analyzed through the lens of the Areas of Worklife Model. The data from 104 PreK-12 teachers in a suburban New England district indicate several specific ways teachers can be best served by leaders who are intentional in designing and cultivating organizational systems that prioritize the mental, physical, and social health of teachers. The prevalence of conflicting responses speaks to the complex nature of teacher self-efficacy and the ways stressors can undermine positive feelings about the job while also highlighting the value of tools like the modified PERMAH Profiler to assist school leaders.*

*Keywords:* wellbeing, teachers, school climate, burnout

Anecdotal evidence of stress and burnout began to emerge throughout the pandemic as several teachers at Pleasant Valley Public Schools (a pseudonym abbreviated PVPS) shared with administrators that they were feeling exhausted, frustrated, and overworked. At least 78% of the district staff responded favorably on all climate survey indicators prior to the pandemic. After steady improvement in school climate survey results from 2015 – 2019 (see Table 1), the district experienced a significant decrease in how teachers felt about climate, belonging, professional development, and behavior management in 2022. The root cause of these declines warranted further exploration.

**Table 1**

*Percentage of Staff Responding Favorably to the Annual School Climate Survey*

| Category                   | 2015<br>(n=162) | 2016<br>(n=181) | 2017<br>(n=159) | 2018<br>(n=183) | 2019<br>(n=157) | 2022<br>(n=177) |
|----------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Instruction & Expectations | 76              | 83              | 85              | 88              | 93              | 92              |
| Climate                    | 81              | 87              | 87              | 89              | 90              | 81              |
| Sense of Belonging         | 74              | 78              | 84              | 81              | 84              | 71              |
| Professional Development   | 72              | 73              | 77              | 79              | 78              | 72              |
| Behavior Management        | 71              | 79              | 79              | 78              | 80              | 68              |

*Note:* The school climate survey is given annually to staff across the district each spring. The survey was not administered during the 2020 and 2021 school years due to the pandemic.

The lowest-scoring questions were the following:

- The district encourages my professional development (67%).
- My opinions count at this school (62%).
- At this school, there is honest communication on important school issues (58%).
- This school’s discipline program is effective (56%).

There was a growing belief that the resilience of teachers had been tested to its limits as was their ability to act in ways that fight stress and maintain a healthy state of well-being. This study of the current state of teacher well-being was conceived to test those assumptions and provide important data to improve the school climate and feelings of stress and burnout teachers were reporting.

By developing a deeper understanding of the factors that cultivate well-being, PVPS and other schools can increase teacher well-being, build resilience against stress, and promote a positive school climate (Corbett et al., 2023). Central to this concept is the belief that a sense of self-efficacy and intentionality around persisting during challenging tasks promotes success towards desired outcomes. “When we believe we can do more and achieve more, that is often the precise reason we do achieve more” (Achor, 2010, p. 86). Moreover, organizational commitment to employee well-being builds resilience against stress. For example, Achor (2010) stated that employees report high satisfaction levels when employers invest in employee

growth, autonomy, responsibility, and meaning making, while offering genuine and ongoing professional support.

### **Growing Consensus Around the Importance of Teacher Well-being**

Decades of research speak to the ways teaching is a highly stressful profession (Montgomery, 2005). “Stress, exhaustion, burnout, uncertainty, anxiety, isolation, despair – these are the all-too-real pervasive descriptors for how many teachers are feeling in, and about, their work” (Cherkowski & Walker, 2018, p. 4). The results of a survey conducted by the American Federation of Teachers (2017) noted that educators find their work ‘always’ or ‘often’ stressful 61% of the time, compared to workers in the general population, who report that work is ‘always’ or ‘often’ stressful only 30% of the time. Stress, however, exists on a continuum. When teachers experience high chronic stress and continue to experience it, it can lead to burnout (Hakanen et al., 2006; Maslach et al., 2001).

Burnout, however, is not interchangeable with general stress. The World Health Organization (2019) defines burnout as a syndrome resulting from chronic workplace stress that has not been successfully managed and should not be used to describe experiences in other areas of life. Three dimensions that characterize burnout include “feelings of energy depletion or exhaustion; increased mental distance from one’s job, or feelings of negativism or cynicism related to one’s job; and reduced professional efficacy” (World Health Organization, 2019).

Numerous studies have focused on teacher stress and burnout (Bermejo-Toro et al., 2016; Buric et al., 2019; Hagermoser Sanetti et al., 2021; Howard & Johnson, 2004; Klusmann et al., 2016; Maslach et al., 2001; Montgomery & Rupp, 2005; Parent-Lamarche & Fernet, 2020). With the onset of the COVID-19 pandemic, educators have faced a bevy of new challenges, including “disruption of established instructional programs and routines, the rapid transition from in-person teaching to remote learning, the emotional toll of isolation due to social distancing efforts, and uncertainty about personal safety and health” (Porter, 2020, par. 2). Increased demands on educators, both in and out of work, have increased concerns of stress and burnout (Jones & Pijanowski, 2023; Lasater et al., 2021; Ray et al., 2020). The burnout problem will not likely go away as school systems transition to a new post-pandemic normal (Davis, 2021; Pijanowski, 2021).

Well-being is a concept that has gained increasing interest in K-12 education since the early 2000s. Teachers with high levels of well-being are likely to report higher self-efficacy, job satisfaction, stronger motivation at work, and increased commitment to stay in the profession (Viac & Fraser, 2020). “Consistently, the role of teachers is highlighted as a key element to ensure the conditions necessary for developing students’ intellectual and social-emotional capacities and capabilities” (Cherkowski & Walker, 2018, p. 2). Thus, teachers play an essential role in fostering social and emotional well-being in their students’ lives. “Happy, healthy teachers who feel well and whole in their work provide strong support for happy, healthy children and youth” (Cherkowski & Walker, 2018, p. 1). Viac & Fraser (2020) go on to state:

Low levels of teachers’ well-being can affect the organization of educational systems through frequent turnover, low performance, absenteeism, and efficiency costs. The

quality of teachers' instruction and practice is also at risk, as stressed or burnt-out teachers can hardly operate effectively in the classroom. In this context, it is not a surprise that teachers' well-being has become a prominent issue in policy and public debates. (p. 7)

Conceptual Framework Research on well-being has tended to revolve around two distinct philosophies – hedonism and eudaimonism (Huta & Ryan, 2010; Ryan & Deci, 2001). The hedonic viewpoint, which is frequently equated with happiness, is defined as achieved by maximizing pleasure and minimizing pain (O'Brien & Guiney, 2021; Agota & Gadanecz, 2022). "The most widely used conceptualization of hedonia is Diener's (1984) model of subjective well-being which contains three components: life satisfaction, and the balance between positive and negative affect" (Disabato et al., 2016, p. 471).

Eudaimonia extends beyond pleasure-driven happiness and encompasses a broader, more psychological focus on gaining meaning and purpose in life and the development of one's true potential (Disabato et al., 2016; O'Brien & Guiney, 2021). "To date, there is no single agreed-upon theory or methodological approach to studying eudaimonia" (Disabato et al., 2016, p. 471). Models of eudaimonia vary widely, but they typically have two features: a component of personal meaning and growth and the exclusion of an affect component (Ryan & Deci, 2001). The Self-Determination Theory (SDT) (Ryan & Deci, 2000) embraces the concept of eudaimonia and posits three basic psychological needs: autonomy, competence, and relatedness. Another perspective on eudaimonia is the Psychological Well-Being model (PWB) (Ryff, 1989), which presents six aspects of well-being: autonomy, personal growth, self-acceptance, life purpose, mastery, and positive relatedness.

Seligman's well-being theory (2012, 2018) encompasses elements of both hedonic and eudemonic views. He proposed that well-being is a construct "which in turn has measurable elements, each a real thing, each contributing to well-being, but none defining well-being" (Seligman, 2012, p. 15). The theory of well-being evolved to have six core elements: positive emotions (feeling good), engagement (finding flow), relationships (authentic connections), meaning (purposeful existence), achievement (sense of accomplishment), and health (physical and emotional). Each element of well-being can be defined and measured independently, contributes to well-being, and is sought for its own intrinsic value (Seligman, 2012, 2018). The term "PERMAH" is used as an acronym to describe the six essential elements of well-being and is explained by McQuaid & Kern (2017) as follows:

- Positive emotion: experiencing positive feelings such as joy, calmness, and happiness.
- Engagement: being interested and involved in life.
- Relationships: feeling loved, valued, and connected with other people.
- Meaning: having a sense of direction, feeling that our lives are valuable and worthwhile, and connecting to something bigger than ourselves.
- Accomplishment: the belief and ability to do things that matter most to us, achieving goals, and having a sense of mastery.

- Health: supporting healthy behaviors such as eating well, moving often, restful sleep, and restoring yourself.

### **Measuring Teacher Well-being**

There are varying ways to measure well-being. Bates and Boren (2019) summarized nine different valid and reliable measures, identifying the pros and cons of each, including the Satisfaction with Life Scale (SWL), Flourishing Scale (FS), Comprehensive and Brief Inventory of Thriving (CIT & BIT), and the PERMA Profiler. To measure general well-being in adults the 23-item PERMA Profiler was created in 2016 by Butler and Kern based on the work of Seligman (2012). According to Kolakowski et al. (2020) the PERMA Profiler is one of the most robust well-being assessments available. Furthermore, the questions on the PERMA Profiler measurement are easy for respondents to understand. This simplicity allows researchers and practitioners alike to administer and understand the results (Kolakowski et al., 2020).

Shortly after the release of the PERMA Profiler, Kern created a workplace version of this measure, the Workplace PERMAH Profiler, sometimes called the PERMAH Workplace Survey. This instrument measures the five well-being factors (positive emotions, engagement, relationships, meaning, and accomplishment) but has evolved to include the importance of physical health and the frequency of negative emotions. This instrument has since been updated by Dr. Kern and Dr. Richard Ryan to add validated self-determination measures that are referred to in the survey as well-being “amplifiers,” “nutrients,” and “outcomes.” Well-being amplifier questions examined the worker's ability to take actions to care for their well-being (ability), their commitment to consistently care for their well-being (motivation), and the existence of safe spaces to talk honestly with others about how they are learning to care for their well-being (psychological safety). Well-being nutrient questions provide insight into several factors that make it easier for people to thrive consistently: the psychological needs of autonomy (having a sense of freedom and choice), competence (ability to do one’s work, learn, and grow), belonging (connecting deeply with others), a sense of inclusion and diversity, physical safety, and the resources for workers to do their jobs. Well-being outcome questions determined levels of worker engagement, performance, and satisfaction.

The PERMAH Workplace Survey is consistently tested by the researchers at The Wellbeing Lab for psychometric validity. The results from July 2021 show that scale reliability and internal consistency of individual factors are good (alpha > 0.8 for all six factors, with over 3,000 respondents across different surveys). The survey shows great internal consistency with an alpha of 0.97. The PERMAH Workplace Survey, because of its reliability, alignment to the PERMAH model, adaptations to measure well-being in the workplace, and ability to provide meaningful, easy to use data, was the strongest fit as an assessment tool for this study.

### **Research Sample and Data Sources**

The purpose of this study was to measure teacher well-being and assess specific ways administrators affect the physical and mental health of staff. This study provided the opportunity for all certified staff members in PVPS to participate. The survey aimed to determine teacher well-being status (research question 1) and offer suggestions to support a

culture that cultivates these qualities (research question 2). The staff consisted of 250 certified employees. The entire population was sampled to represent the district community and capture a broader sample of demographic data. Any incomplete surveys were omitted from the data analysis because information was missing from their survey results, making it impossible to compare data sets for these teachers. Of the 250 certified teachers invited to participate in this study, 104 completed the entire survey, resulting in a 42% participation rate across the district. The survey was administered using a research company called The Wellbeing Lab and each participant received an individualized report of their results. The Wellbeing Lab also provided a comprehensive data analysis.

### **Data Collection Methods**

The PERMAH Workplace Survey was administered by the researchers to measure the factors of teachers' positive emotions, engagement, relationships, meaning, accomplishment, and health. This design allowed for a deeper exploration of teacher well-being and was framed around the following questions:

1. What does teacher well-being look like at Pleasant Valley Public Schools?
2. What can administrators do to support a culture that cultivates the qualities of well-being?

The survey consists of 73 questions. The first ten questions gathered demographic information. The following 63 questions collected information about well-being in the workplace. The university Institutional Review Board approved the study and informed consent procedures on May 18, 2022 (protocol number 2203393646). The survey was administered during a four-week period between May 23, 2022, and June 19, 2022. These dates were shortly after the window for surveying teachers on the annual school climate questionnaire.

### **Data Analysis Methods**

To summarize the results, a frequency analysis was calculated for items with a 10-point Likert scale. The last question on the survey invited teachers to respond to the open-ended prompt, "Is there anything else you'd like to share?" An analysis was conducted by reviewing all open-ended responses using a first and second cycle-coding method (Saldana, 2021). The first cycle consisted of initial coding which used the inductive approach to create a starting point that allowed concepts to naturally emerge from the data. A second coding cycle was used to refine the themes and provide additional insight into the summary findings for research question 1. Results for research question 2 were derived from a cross-sectional analysis of specific Likert questions and open responses that pertained to the role the organization played in promoting well-being. Table 2 describes the reportable demographic information of the survey participants. Demographics that were deemed to be identifiable characteristics were not included.



**Table 2***Demographic Characteristics of Participating Teachers*

| Characteristics                          | <i>n</i> | %    |
|--|----------|------|
| Primary Workplace                        |          |      |
| High School (Grades 9-12)                | 39       | 38   |
| Middle School (Grades 6-8)               | 18       | 17   |
| Intermediate School (Grades 4-5)         | 12       | 12   |
| Elementary School A (Grades PreK-3)      | 14       | 13   |
| Elementary School B (Grades PreK-3)      | 21       | 20   |
| Gender                                   |          |      |
| Female                                   | 84       | 81   |
| Male                                     | 17       | 16   |
| Other                                    | 3        | 3    |
| Age                                      |          |      |
| 18-24                                    | 0        | 0    |
| 25-34                                    | 27       | 26   |
| 35-44                                    | 29       | 28   |
| 45-54                                    | 30       | 29   |
| 55-64                                    | 16       | 15   |
| 65+                                      | 2        | 2    |
| Team Leadership                          |          |      |
| I am responsible for leading a team.     | 39       | 37.5 |
| I am not responsible for leading a team. | 65       | 62.5 |

*Notes. N=104.*

### Understanding the Survey

In addition to gathering demographic information, 63 questions asked teachers to consider how they felt and functioned at work over the past two weeks. The first 57 questions asked respondents to indicate the extent to which they agreed with the statements, ranging from zero (not at all, 0%) to 10 (completely, 100%). The score ranges represent global norms that have been gathered from people completing the PERMAH Wellbeing Survey and from representative population samples continuously gathered and updated from around the world (The Wellbeing Lab, personal communication, September 2022). The results of these studies allowed for the determination of several score ranges. The Wellbeing Lab reports that, in general, people with healthy levels of well-being typically score around 70-100. That said, well-being tends to ebb and flow in a normal range of 60 to 80 out of a score of 100. Scores below 60 may indicate that well-being is a struggle requiring further assistance. Scores above 75 are indicative of someone who is exceptionally healthy but may also suggest a lack of psychological safety to honestly tell how the respondent is feeling. Table 3 provides a more detailed description of the score ranges and assists with interpreting the scores.

**Table 3**

*Interpretation of Score Ranges for the PERMAH Workplace Survey*

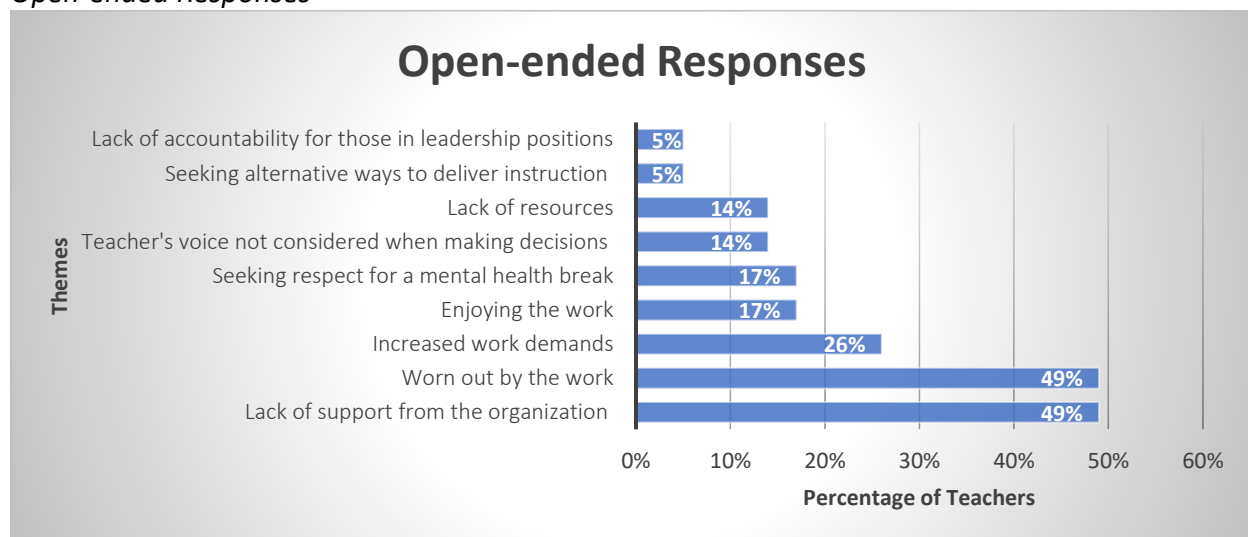
| Score Range | Interpretation   |
|-------------|--|
| 59 or below | Generally, an indicator that a worker's well-being is struggling and requires attention, action, and assistance.   |
| 60-69       | Lower than ideal and may require attention, action, and assistance.  |
| 70-75       | The healthy range. Many workers consistently score in this range.  |
| 76-100      | Exceptionally healthy. If a worker's scored close to 100 on all factors, this may suggest a lack of psychological safety to honestly tell how they feel. |

### Results of the Open-ended Survey Responses

Teachers were asked to respond to the prompt, “Is there anything else you’d like to share?” Thirty-four percent (35 out of 104) of the teachers responded to this open-ended question. An analysis of the responses using the first-and second-cycle coding method revealed two major and several minor themes (see Figure 1). The two strongest themes that emerged were feeling worn out by the work and unsupported by the organization, with 17 out of 35 (49%) teachers commenting on these topics. Feeling that the work demands asked of teachers had increased was reported by nine of the 35 respondents (25%). Less prominent themes included a desire to have more district support for a teacher's mental health days and feelings of enjoying the work (found in six responses; 17%), and the need for more resources and inclusion in decision-making (found in five responses; 14%). Two teachers’ comments (5%) mentioned feeling a lack of accountability for those in leadership positions and a desire to seek out alternate ways of delivering instruction.

**Figure 1**

*Open-ended Responses*



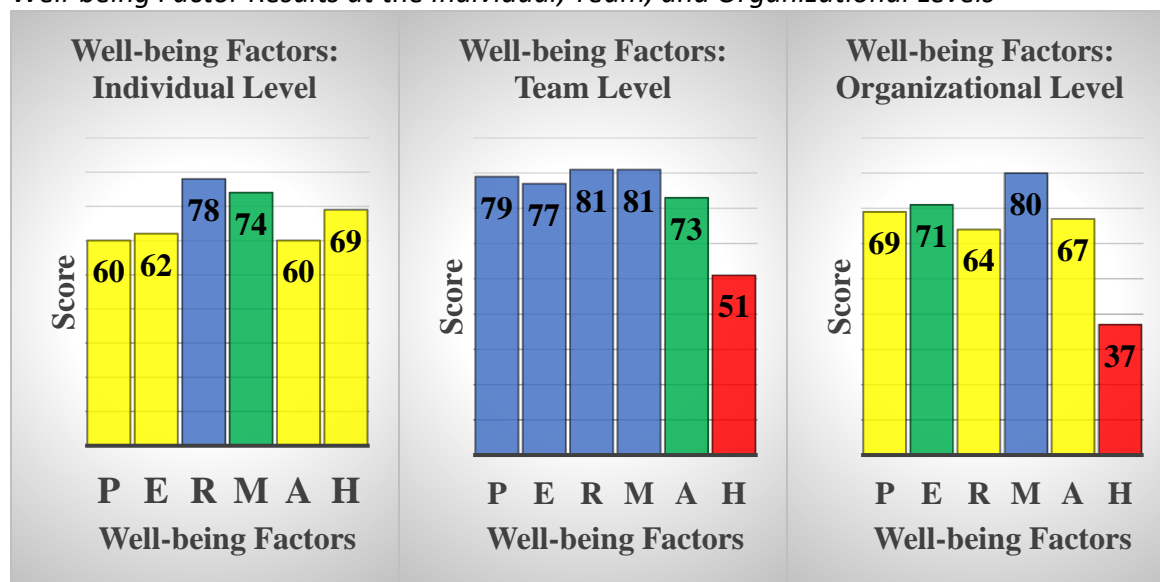
## Well-being Factor Results

The first grouping of questions is referred to here as the PERMAH factors. The wording of these questions was changed slightly to gather information at the individual, team, and organizational levels. Questions at the individual level gathered information on the individual teacher's perceptions of their well-being (research question 1). Questions at the team level, gathered information by asking the extent to which the team supported their well-being.

Organizationally coded questions asked teacher's perceptions of how their "organization" supported their well-being. Teachers were left to infer who the "organization" references (school-based leaders, district-based leaders, school board). Scores of 70 or higher are indicative of healthy well-being. Scores below 70 indicate lower-than-average levels of well-being and may require a deeper analysis. Figure 2 summarizes these findings by presenting the results of each factor (i.e., positive emotions, engagement, relationships, meaning, accomplishment, and health) at the three levels (i.e., individual, team, and organizational). These results, when presented alongside teacher feedback, highlight several strengths and weaknesses.

**Figure 2**

*Well-being Factor Results at the Individual, Team, and Organizational Levels*



### Teachers find their work meaningful

Teachers find their work meaningful, with scores above 70 at the individual, team, and organizational levels. Comments that supported these results:

- "I love my job."
- "It is easy to see the majority of the teachers are dedicated to their job."

- “Our kids are the only thing keeping me in this district. They’re the reason I come to work every day.”

### **Teams are functioning well**

The results show consistently high scores at the “team” level (all scores above 70 except for health), in contrast to scores at the individual and organizational levels. This is supported by the open-ended comments which included the following:

- “I am so thankful for my team.”
- “I always feel supported and valued by my teammates and colleagues.”
- “The team of teachers that I work with on a daily basis is phenomenal, supportive, and hard-working.”
- “My team/department that I work alongside is fantastic. We support one another, collaborate, and help each other constantly.”
- “My team has been a tremendous support over the past few years, and I could not have gotten by without them.”

### **Teachers have supportive relationships, but do not feel supported by the organization**

Teachers reported having supportive relationships at the individual (78) and team (81) levels. At the organizational level, however, the score was 64. These results are supported by the second major theme noted in the open-ended prompt which was that teachers felt unsupported by the organization (49%) as represented by the following comments:

- “It seems like the district is willing to do whatever the loudest voice wants (usually appeasing parents).”
- “I don’t feel valued or supported by upper administration.”
- “Lack of trust and support from the organization has generated stress and anxiety.”
- “My work fatigue comes from feeling unsupported from central office.”
- “The past two years [during the pandemic] were high pressure and stress with little to no support from the organization.”

### **Teachers experience fewer positive emotions and lower engagement**

Scores at the individual level for positive emotions (60) and engagement (62) fell below the healthy range. This may be impacted by the major theme noted in the open-ended comment that teachers feel worn out by the work. Out of the 35 comments, 17 people noted feelings of being depleted, exhausted, frustrated, and stressed from the demands of work. For example, “I have always managed in the past, now [I am] worn out and need a break.” Another teacher noted the stress of dealing with some of the behavior issues with students as being a source of exhaustion. One teacher explained it in detail:

We are all mentally and physically exhausted from all the changing hoops we have jumped through over the past 3 years with the pandemic. It is not just a one-year toll. It is a cumulative toll. No year came to a complete halt. Each year we had to quickly jump and adapt to a new and changed curriculum, and new way of teaching with and without technology. We had to scaffold in many different ways each successive year to make up for losses and often on the fly because of surprising gaps in knowledge. This would force us to reteach some of the previous curricula to teach the current curriculum. This is absolutely exhausting. Many of us got physically sick more times than we ever had in our long-time careers. I believe it is from mental and physical exhaustion.

### **Health is an area of concern at the individual, team, and organizational levels**

Health was the area of most concern, with all scores below the expected healthy range (Individual was 69, team was 51, and organization was 37). Some comments may help understand the reason for the low scores:

- “Due to my health... I had FMLA and needed to take time off from work.”
- “Removing the stigma of a mental health day would be huge.”
- “Work takes up too much time and headspace, short lunches, few breaks, equals poor mental health/wellness.”
- “It has been hard in post-Covid times to get back to feeling consistently good, strong, and energized after the challenges both in the workplace and with family health issues at home.”
- “Students are given mental health days but not the teachers. We would like to see more flexibility in the way we use our sick time.”

### **Teachers lack feelings of accomplishment**

Accomplishment scores (60 at the individual level and 67 at the organizational level) were below the healthy range. This could be impacted by the perception teachers had regarding increased work demands (a minor theme noted by 25% of the respondents):

- “Teachers are continually being asked to do more and more with less and less.”
- “We are slammed with referrals for special education.”
- “Increased curriculum demands, and student needs (behavior, emotional, and academic) are growing. Teaching is exhausting work.”

### **Well-being Nutrients Results**

The PERMAH Workplace Survey asked eleven questions to gather data on workplace well-being “nutrients.” These questions gathered information on the teacher’s perception of their feelings of autonomy, competence in their work, inclusion, being part of an organization that accepts and values diversity, perceptions of physical safety, and access to resources. The mean results

and the corresponding scores summarized in Table 4, when presented alongside several open-ended responses offer insight into an area of concern.

**Table 4**

*Well-being Nutrients Results*

| Workplace Wellbeing Nutrients | M    | Score |
|-------------------------------|------|-------|
| Belonging                     | 7.70 | 77    |
| Diversity & Inclusion         | 7.62 | 76    |
| Competence                    | 7.53 | 75    |
| Autonomy                      | 7.20 | 72    |
| Physical Safety               | 6.94 | 69    |
| Resources                     | 6.13 | 61    |

Notes. N=104.

**Belonging vs feeling safe**

Teachers feel a strong sense of belonging but note concerns for their physical safety and the availability of support for students with varied needs (human resources). The results show that qualities of autonomy, competence, inclusion, diversity, and belonging are in the healthy range. Physical safety (69) and the availability of resources (61), however, given their lower-than-average scores may be areas of concern. Although open-ended responses did not mention issues related to physical safety, several comments (14%) mentioned a lack of resources:

- “I do not have enough resources to teach my students adequately. We have students that do not get the support they need.”
- “We do not have enough adult resources to support the students.”
- “I do not have enough resources to adequately teach my students who have a vast variety of needs.”

**Workplace Outcomes Results**

Eight questions were grouped together into a category called workplace outcomes. These indicators described how people feel about their job and measured levels of job engagement, performance, and satisfaction with their work. The workplace outcomes scores indicate that teachers are engaged, performing well, and are satisfied with their work. This provided a snapshot of the extent to which people feel positive and content about their job. Table 5 summarizes these results.

**Table 5**

*Workplace Outcomes Results*

| Workplace Outcomes                             | M    | Score |
|--|------|-------|
| Engagement (Commitment & Dedication)           | 8.28 | 83    |
| Performance (Individual, Team, & Organization) | 8.15 | 82    |

Notes. N=104.

### Well-Being “AMPLifiers” Results

Well-being “AMPLifiers” (A = ability, M = motivation, and P = psychological safety) were analyzed across seven questions. A person’s well-being ability is the capacity (e.g., knowledge, tools, opportunities) to act to care for their own well-being. Well-being motivation is a person’s commitment to prioritize caring for their well-being consistently. Psychological safety exists when people have a safe space to talk openly and honestly about how they are trying to care for their well-being, what is working well, where are they struggling, and what are they learning without fear of being judged. The results of these items are presented in Table 6.

**Table 6**

#### *Well-being AMPlifier Results*

| Wellbeing AMPlifiers  | M    | Score |
|---|------|-------|
| Ability (Ability & Challenges)                                  | 6.82 | 68    |
| Motivation (Motivation & Habits)                                | 6.67 | 67    |
| Psychological Safety (Struggles Self, Psych Team, & Psych Work) | 6.40 | 64    |

Notes. N=104.

#### **Ability to effect positive personal change**

The results indicate that the scores of all well-being AMPLifiers questions were all below the healthy average, meaning teachers may not feel psychologically safe at work, lack the motivation to care for their personal well-being, and struggle with their ability to meet the challenges at work. Open-ended responses support a lack of psychological safety, with many teachers commenting they are feeling unsupported and, in some cases, fearful of supervisors.

- “We fear being seen as weak or unstable if we were having a bad day.”
- “We fear retaliation when speaking up.”
- “I’ve had several people come to me crying... hiding because they knew they would be judged by others and seen as weak or unstable.”
- “We only have contact with central office and building admins if you’ve done something wrong.”

### Question Level Analysis

Results were analyzed at the question level to determine if “outliers” may be hidden by calculating the mean of each section. Once identified, these questions were grouped into three categories: strengths, possible areas of concern, and areas of concern. Table 7 highlights the questions revealing potential strengths. The PERMAH factor for each question was included and resulted in noting that teachers find their work meaningful and are deeply engaged in it.

**Table 7***Question Level Results: Strengths*

| Question  | M    | Score |
|---|------|-------|
| Meaning: I was clear on why I did the work I did.                   | 8.78 | 88    |
| Meaning: The work I did was valuable and worthwhile.                | 8.61 | 86    |
| Accomplishment: I set clear and measurable goals.                   | 8.22 | 82    |
| Meaning: My organization did work that was valuable and worthwhile. | 8.04 | 80    |
| Engagement: I was deeply engaged and interested by my work.         | 8.01 | 80    |

Notes. *N*=104.

These results show that teachers are functioning well at the individual level with their work in the classroom with students.

**Areas of Concern: Teachers feel unsupported at the district level**

Table 8 highlight survey questions at the organizational level that may require a deeper analysis. First, teachers feel the district is not as supportive and concerned for their safety as they would like. In addition, the teachers do not feel calm when at work. These responses speak directly to research question 2 - What can administrators do to support a culture that cultivates the qualities of well-being?

**Table 8***Question Level Results: Possible Areas of Concern*

| Question  | M    | Score |
|---|------|-------|
| Relationships: My organization was encouraging and supportive of its employees. | 6.44 | 64    |
| Safety Nutrient: My organization was highly committed to health and safety.     | 6.34 | 63    |
| Positive Emotions: I felt calm at work.   | 6.00 | 60    |

Notes. *N*=104.

Teachers reported that they do not feel psychologically safe at work, lack resources, experience self-judgment and anxiety, found the work hard to switch off, and feel their efforts to maintain physical health are unsupported (See Table 9). These results support the previous findings that teachers feel unsafe bringing up problems and keep their struggles to themselves. They feel anxious and worn out by the work. They are critical of themselves and find it difficult to shut off their work responsibilities. Teachers do not feel the district supports their physical health.

**Table 9***Question Level Results: Areas of Concern*

| Question | M | Score |
|----------|---|-------|
|----------|---|-------|



|  |      |    |
|--|------|----|
| Psychological Safety AMPLifier: I felt safe at work to bring up problems and be honest about mistakes. | 5.84 | 58 |
| Psychological Safety AMPLifier: I felt it best to keep my struggles to myself at work. *               | 5.88 | 59 |
| Positive Emotions: I felt anxious at work. *   | 5.57 | 56 |
| Resource Demands Nutrient: My organization demanded too much from me. *                                | 5.03 | 50 |
| Meaning: The work felt so important I found it hard to switch off. *                                   | 4.89 | 49 |
| Engagement: I felt worn out by the work. *   | 4.05 | 41 |
| Accomplishment: I was judgmental and critical of myself. *   | 3.81 | 38 |
| Health: My organization made efforts to support my physical health.                                    | 3.71 | 37 |

Notes. N=104. \* Reflects a reverse-coded item.

### Well-being Supports Results

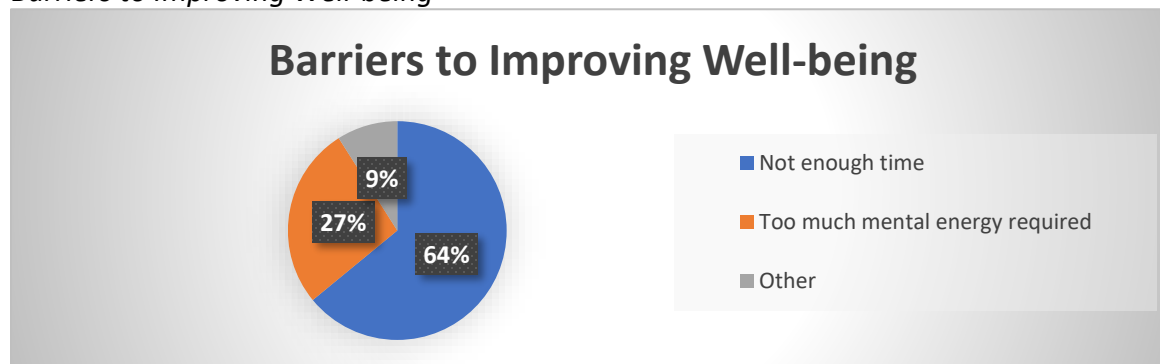
The survey also contained four questions that probed deeper into conditions and factors that support well-being. For each item, teachers selected from a menu of options that most closely answered questions regarding the cause of their workplace struggles, the barriers to well-being, to whom they reach out to when struggling, the most valuable supports their workplace can provide, and how they are feeling overall.

#### Time is the biggest barrier to well-being

The largest barrier to improving well-being was overwhelmingly identified (64%) as not having enough time. Additionally, 27% of teachers reported that the work required too much mental energy. Nine percent of the teachers selected the category of “other,” the causes of which are unknown. The additional options for barriers not selected included: dealing with people, managing money, navigating changes, and caring for others. These findings (see Figure 3) are also consistent with several comments on the open-ended prompt including: “Work takes up too much time and headspace, short lunch waves, few breaks equal poor mental health and wellness.” and “I and my colleagues have to work many hours outside of the workday to complete reports.”

**Figure 3**

*Barriers to Improving Well-being*

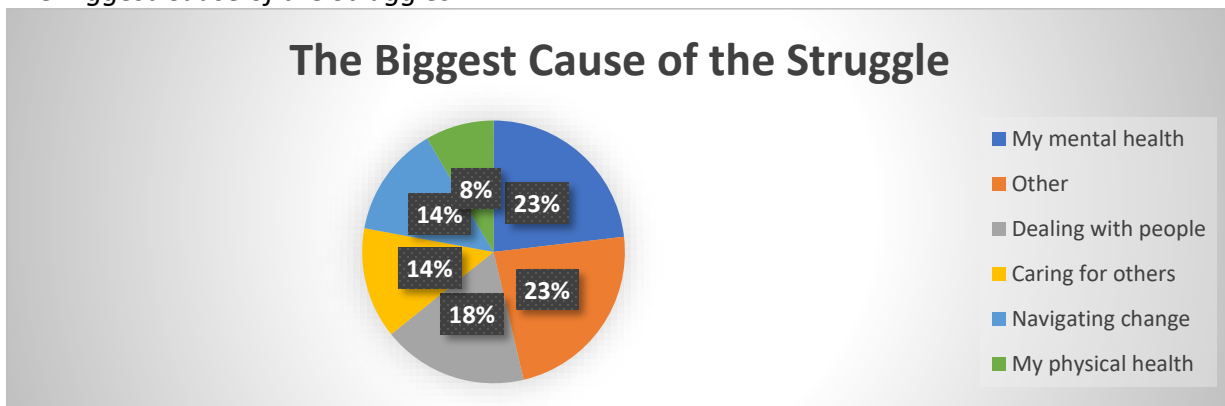


## Mental health is the biggest cause of the struggle

Twenty-three percent reported mental health as their biggest cause of struggling (see Figure 4). Eighteen percent of the teachers selected the category of “other,” the causes of which are unknown. Thirty-two percent of the causes for struggles were related to people, either those that teachers must deal with (18%) or people they feel the need to care for (14%). Interestingly, physical health was the lowest score (8%), implying teachers do not see physical health as one of the major causes of their struggles. This finding contrasts with the previous responses which identified this to be an area of concern.

**Figure 4**

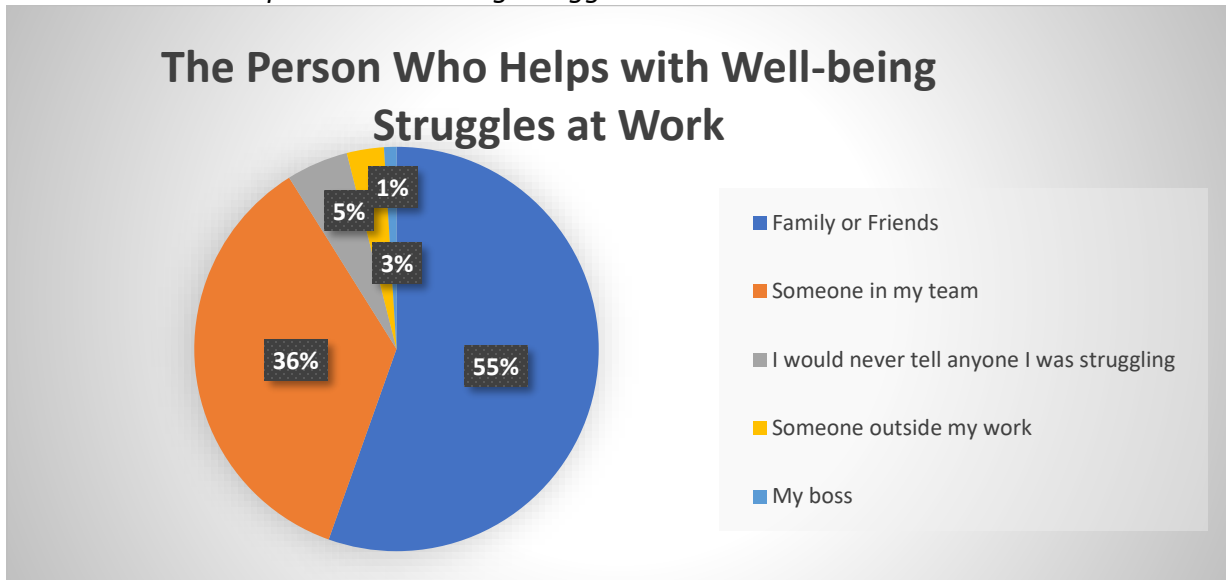
*The Biggest Cause of the Struggles*



## Teachers predominately seek support from outside the organization

In response to the question asking teachers to identify the person who helps with their well-being struggles at work, 58% of teachers (see Figure 5) predominately seek support from someone outside of their organization (55% family and friends and 3% other person outside of their work). The findings also show teachers do not feel comfortable seeking help from their boss (only 1%). They would, however, reach out for help to a team member (36%). This means only 37% of teachers would reach out to someone within the workplace to address their workplace struggles. The remaining 5% shared that they would never tell anyone they were struggling.

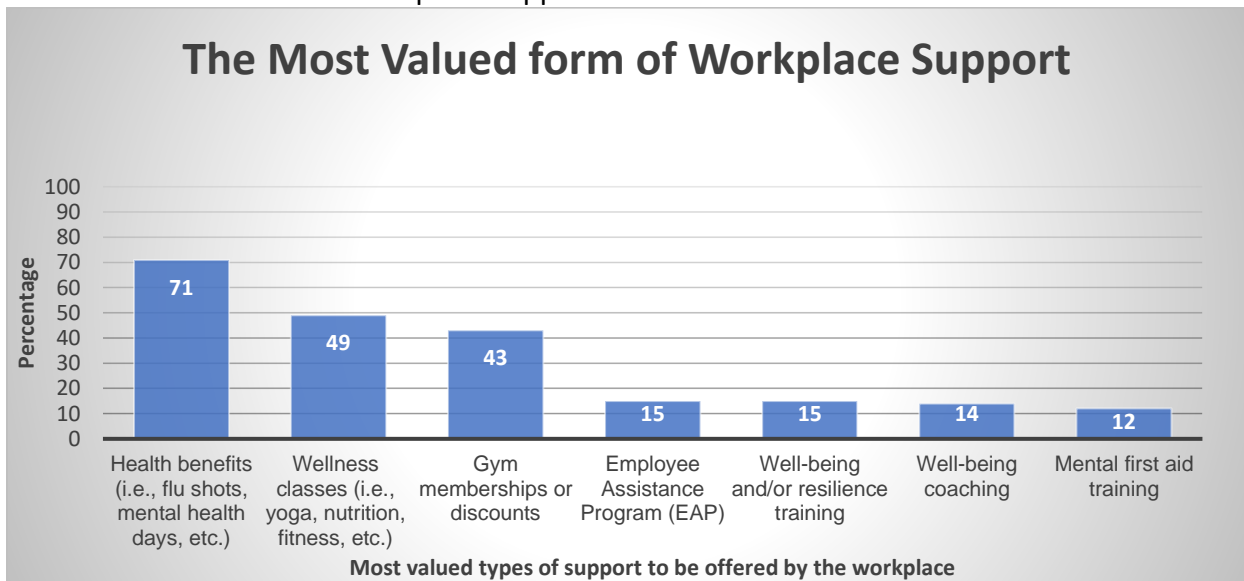
**Figure 5**  
*The Person Who Helps with Well-being Struggles at Work*



**Teachers value the health benefits they get from working**

Health benefits, wellness classes, and gym memberships encompassed the most valued form of workplace support, with the highest-ranking being health benefits (71%). Responses were consistently lower for training (between 12-15%) and coaching (14%), supports which would assist teachers with taking charge of their well-being (see Figure 6).

**Figure 6**  
 The Most Valued Form of Workplace Support



## **Limitations and Delimitations**

Several limitations were considered during this study. Participation, for example, was voluntary with only 42% of the entire population completing the survey. Additionally, only 34% of the teachers (14% of the total population) responded to the open-ended prompt, leaving 69 respondents without a voice in the comparison. Moreover, most of these comments were negative in nature. Employees with less-favorable opinions of their organization may be more likely to provide feedback on the survey (Harris, November 15, 2018). Therefore, it is possible that the answers to the open-ended question may not be reflective of the teachers who did not respond; the “non-responders” may have provided more favorable responses.

The study used a self-reported tool to gather data on teacher well-being; therefore, it may have been susceptible to different forms of biases. The first is that the participant's mood may fluctuate daily. To address this limitation, the survey asked teachers to answer each question by considering how they felt over the past two weeks. More difficult to control, however, was the bias which may have occurred if respondents wanted to “look good” in a survey or feared reprisal if they responded honestly. The use of a third-party company to deliver the survey sought to strengthen the message of anonymity and decrease the likelihood of this bias occurring.

## **Framing Results in a Work-life Model**

The Areas of Worklife Model (AW) identifies six core job demands that organizations, leaders, and teams need to be aware of and address to decrease the likelihood of burnout and promote a healthy workplace: sustainable workload, choice and control, recognition and reward, supportive work community, fairness and respect, and clear values and meaningful work (Leiter & Maslach, 1999; Leiter & Maslach, 2003; Maslach et al., 2001; Maslach & Banks, 2017; Maslach, 2017). Examining the key findings from the survey results through the lens of the AW model offers several insights for interpreting the results.

Teachers are struggling to meet the challenges at work and for many the demands do not feel sustainable. They feel they do not have enough resources (specifically staffing to meet the challenging student behaviors or enough time to complete the demands of their job. An imbalance between job demands (aspects of the work that take consistent effort and energy) and job resources (aspects of work that are motivational and energy-giving) is prevalent. Although the well-being of staff is an important enough of a concern for many school leaders that it becomes a source of their own stress, efforts intended to support teachers can create more burdens if not tailored to meet their needs (Doyle Fosco et al., 2023). For example, principals need to be responsive to the needs of teachers when curating professional development opportunities (Koonce et al., 2019).

Teachers feel engaged and satisfied with their work. However, their motivation to care for their well-being is lacking. Moreover, there is a perceived lack of control and choices available to them to improve their well-being at work. At the same time, they express engagement, teachers are also experiencing self-judgment and anxiety about their work,

finding it hard to switch off, which is indicative of the research on compassion fatigue. The teachers may feel conflicted between their passion for teaching and their responsibilities in other areas of their life. In addition, teachers lack feelings of accomplishment. These conflicting responses speak to the complex nature of teacher self-efficacy and the ways stressors can undermine positive feelings about the job.

Where positive organizational feedback is sometimes lacking, it is in other relationships and from internal motivations that teachers often find the most crucial support. Intellectual virtues like curiosity and humility play a key role in establishing trusting relationships and positioning school leaders to be active perspective takers (Pijanowski & Lasater, 2020). Teachers are working for their own personal satisfaction and not for the organization; it is more about the work they do rather than a commitment to the school district. In contrast, teams are functioning well. Although teachers have supportive relationships, they are mainly from outside of the organization. Overall, psychological safety is a concern. While looking for ways to provide more regular and focused positive feedback seems warranted, PVPS may find it more valuable to invest in promoting existing team-based relationships that already are nourishing feelings of efficacy and well-being.

The teachers reported their greatest struggle was with their mental health and yet they also question the fairness of decisions and feel a need for more support for taking time off to address their mental health needs. Their feelings of exhaustion, negativity, and self-criticism are signs that burnout is present in at least some of the teaching staff. When combined with the teachers' inability to maintain their physical health, these indicators may have a negative impact on other areas of well-being such as feelings of engagement, positive emotions, and motivation to care for their well-being. There are indications of a vicious cycle of stress eroding some teachers' capacity to implement supportive practices, making it more difficult to fend off stress. The cyclical nature of stress highlights the importance of leaders engaging in intentional practices that seek to rejuvenate and nurture well-being while reducing unnecessary burdens at every opportunity (Lasater, et al., 2023).

The understanding that our well-being can be scientifically measured and then improved through the intentional use of interventions provided the foundation for this study. Gathering data helped to address the potential gap between what leaders perceive is happening and what the teachers are really feeling, helping to create a more accurate starting place to begin formulating strategies leaders can use to promote teacher well-being. Once an organization has better understood and measured teachers' well-being, in this case, using the PERMAH Workplace Survey, the results can identify areas of well-being strengths and areas for improvement and provide an accurate starting place to begin formulating strategies leaders can use to promote teacher well-being.

### **Recommendations for Practice**

Caring for well-being is never a one-size fits all solution. Effectively caring for well-being in schools involves assessing (through surveying staff with an instrument like the PERMAH Workplace Survey), acting (taking small steps to implement change), and adjusting (choosing alternate approaches or seeking help as needed). As well-being ebbs and flows, so, too, should the district's response.

Positioning teachers' well-being within the broader professional context in which they operate allows for a deeper understanding of how individual, relational, and external factors affect the well-being of teachers. As the nation emerged from the pandemic and schools set out to restore a healthy sense of well-being in the system, developing a deeper understanding of the status of teacher well-being is a necessary first step.

This multi-faceted tool provided information on the PERMAH indicators at three levels (individual, team, and organization), and on qualities important for an organization to consider (e.g., psychological safety, autonomy, well-being barriers). The administration of the PERMAH Workplace Survey addressed the potential gap between what leaders perceive is happening and what the teachers are really feeling, helping to create a more accurate starting place to begin formulating strategies leaders can use to promote teacher well-being.

Four recommendations emerged from this study. First, the need for a psychologically safe work environment is critical to the discussion. To strengthen teachers' relationships with the organization, leaders can adopt practices that build a supportive work community. Second, in conjunction with establishing psychological safety, leaders can create a caring and supportive emotional culture, addressing feelings of self-judgment and lack of accomplishment and providing a workplace environment we all need, one in which we feel heard. Third, leaders can address the imbalance between teachers' job demands and job resources, thereby reducing work-related stress. Lastly, caring for well-being must be a visible priority within the system, with leaders acting as role models and providing teachers with the skills and tools needed to look after their own well-being. The study began as an investigation of what school leaders can do to support a culture that cultivates higher qualities of well-being. Although literature finds support for the belief that organizations have control over factors that support well-being in the workplace, there is also considerable literature on the individual's responsibility to contribute to their own well-being. So, through the reflection process, it became clear that addressing teacher well-being is the responsibility of both the organization and the individual. Therefore, it is not only important that leaders develop a deeper understanding of the where the locus of control sits for different aspects of improving teacher wellbeing, but that there are ongoing conversations within schools so that there is a shared understanding and language for wellbeing initiatives. For districts embarking on this work, building a comprehensive action plan should include a discussion of what is within the control of the leaders and teachers and how they can all advocate for changes that are beyond their collective ability to change directly.

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# Taking the Pulse of Special Education Campus Needs: An Initial Analysis of the Special Education Campus Needs Assessment (SECNA)

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## **Abstract**

*This article presents an initial analysis of a new special education campus needs assessment designed to gauge educator perceptions of special education in five key areas: support, expectations, empowerment, equity, and professional development. The Special Education Campus Needs Assessment (SECNA) was pilot tested with a group of seventy-two educators from four school districts in Texas. The pilot data were factor analyzed, and the researchers refined the instrument accordingly. Next, researchers administered the refined instrument to a larger sample of 530 educators from 94 campuses in 31 school districts across the state of Texas. Data from the comprehensive study were subjected to factor and reliability analyses using AMOS 26. Finally, the researchers built a Structural Equation Model (SEM) to assess measurement properties and test the proposed theoretical relationships between variables. The results of these analyses indicate that SECNA as a valid and reliable instrument in measuring special education campus needs from the educators' perspective. Implications for school leaders are discussed.*

Keywords: Special education leadership; Inclusive leadership; Campus needs assessment

## **Purpose Statement**

The Special Education Campus Needs Assessment (SECNA) was designed as a survey instrument to measure educator perceptions of special education needs at the campus level. We begin by documenting the theoretical framework utilized as the basis for this assessment. Next, background information is provided on the initial survey design. Then, an exploration of the initial pilot study and corresponding Exploratory Factor Analysis (EFA) employed to validate this instrument is presented, including survey validity and reliability for the EFA. This is followed by information on the large-scale study with corresponding Confirmatory Factor Analysis (CFA) including survey validity and reliability results. Subsequently, a Structural Equation Model (SEM) is presented to demonstrate the effects the constructs within this instrument have on one another. Recommendations for utilization of this instrument by researchers and practitioners are discussed along with implications for school leaders.

## **Framework**

The Collaboration for Effective Educator Development, Accountability, and Reform (CEEDAR) Center, along with the Council of Chief State School Officers (CCSSO), reviewed the Professional Standards for Educational Leaders (PSEL) to address the needs of students with disabilities. Together, these two groups created the *PSEL 2015 and Promoting Principal Leadership for the Success of Students with Disabilities* report that outlines ten standards and key elements relating to the principal leadership practices for supporting students with disabilities (National Policy Board for Educational Administration, 2015). These standards provide the framework utilized to develop the initial pilot version of SECNA.

## **Literature Review**

One of the standards outlined by the CCSSO (2017) is that effective principals encourage the development of a data collection mechanism that will give teachers important information about student achievement and mastery to better support students with disabilities. Principals manage budgets, external resources, and human capital to ensure that all students, including those with disabilities, can access quality instruction, transportation, services, accommodations as needed, and extracurricular activities. One of the barriers to successful inclusion is lacking sufficient resources (Daniel & Lemons, 2018). As principals manage resources, they may need to reassign roles and responsibilities to optimize staff capacity and meet all students' needs.. Principals on inclusive campuses make impactful scheduling, hiring, and evaluation decisions to improve student achievement and teacher working conditions (Oskarsdottir et al., 2020; Waldron et al., 2011). Campuses seeking to improve their inclusivity may need to redesign their master schedule and reallocate their teachers and support staff to educate students with disabilities and other students who have traditionally been educated in separate classrooms, giving them access to the least restrictive environment (Choi et al., 2017). Students with and without disabilities generally perform best when they receive inclusive education rather than segregated education (McLeskey et al., 2014). Inclusion is a constant process that recognizes all students, including

those with disabilities, as valued members of an encouraging school community (McLeskey et al., 2018; Mintrop & Zane, 2017).

As a campus moves towards inclusivity, it is important that they have a local data system that is accessible to teachers so that they can use it to plan instruction (Simon et al., 2021). Data systems of this nature create efficiencies to maximize resources to meet the needs of all students (DeMatthews, 2015). Data drives instruction and helps principals decide how to distribute resources on campus and establish staff development needs for a particular group of teachers (Simonsen et al., 2010). Thus, when measuring special education campus needs, it will be important to identify the campus' current state of data utilization.

The CCSSO (2017) indicates that effective inclusive principals hire staff for all positions who are highly effective and share the schoolwide vision and values that promote improving achievement for all students, specifically those with disabilities. O'Rourke (2015) notes that implementing inclusion with fidelity can be hindered when teachers perceive additional responsibilities as burdensome rather than focusing on the benefit to the students in their classroom. Staff who take responsibility for students struggling to learn also create an environment where all students can achieve and be successful (O'Rourke, 2015). Effective teachers directly influence student learning and are critical to high-performing schools across all groups of students (McLeskey & Waldron, 2015). As Masumoto and Brown-Welty (2009) note, teachers who do not embrace high expectations for all students should receive targeted training or may need to be replaced. Importantly, many veteran administrators note that not all teacher turnover is negative (Masumoto & Brown-Welty, 2009).

Effective inclusive campus principals participate in and provide ongoing high-quality professional development and meaningful learning opportunities for their staff (CCSSO, 2017; DeMatthews, 2015). Teachers sustain what they have learned and experienced in professional development sessions by implementing strategies in their classrooms, having additional opportunities to ask questions, analysing case studies, and receiving coaching feedback from other teachers or the expert leading the professional development (Daniel & Lemons, 2018). According to McLeskey & Waldron (2015), high quality training should stem from teacher needs and engage teachers in their own development. It should also be intensive (at least 20 hours or more) so that teachers have the opportunity to practice implementing new skills (McLeskey & Waldron, 2015).

Principals of high-performing inclusive schools develop leaders on campus and recognize that they themselves cannot be experts in every area (Valentine, 2019). Principals of high-performing inclusive schools distribute leadership on their campuses by developing teacher leaders to be able to coach other teachers (Choi et al., 2017) Strong leaders also recognize the need to include teachers in campus decision-making responsibilities (Waldron et al., 2011).

Effective inclusive principals promote a collaborative culture on campus where they encourage teachers to reflect and assess their craft and work together to improve achievement and outcomes for students with disabilities (CCSSO, 2017). Such leaders develop and maintain positive relationships with stakeholders in the education process, including parents, students, community partners, and agencies of common interests (DeMatthews et al., 2020).

Having shared decision-making on campus builds community and trust among the faculty. Therefore, teachers can make decisions about their classrooms and, subsequently, are held accountable for the learning and success of all students. For inclusion to be successful, co-

teaching pairs must have opportunities to plan together to develop lessons that meet the learning needs of all students in their classroom (Del Toro et al., 2016). Effective inclusive principals make sure these teachers have the time to plan together, evaluate their lessons, and assess their students for areas of re-teaching and proficiency to improve achievement (Theoharis & Causton, 2014).

The education model for students with disabilities is changing from a model focused on students' disabilities to one of inclusion focused on the ability of all students (Cook & Cook, 2013). Inclusion occurs when students receiving special education services have meaningful opportunities to access the general education curriculum, instruction, and peers with needed support in general education classrooms. However, inclusive education goes beyond access to general education contexts; it is a belief system in which all students feel they belong and are a meaningful part of the classroom community (Cosier et al., 2013).

In a climate where teachers often feel they are operating at maximum capacity, school leaders need to help stakeholders understand the why and how of the necessary changes so that all involved are motivated to share the responsibility for the success of the change (CCSSO, 2017; Kearney & Smith, 2010). Schools perform best when they have a representative leadership team informing decisions, including general education and special education teachers, administrative personnel, and other staff members (Theoharis & Causton, 2014). Theoharis and Causton (2014) also note that it is important to have plan in place to keep families and the community informed and involved in the process. Student outcomes are positively impacted when campuses build trust between families and school personnel and when families are involved in planning and instructional processes (CCSSO, 2017; Choi et al., 2017).

## **Methodology**

**Research Question 1 (RQ1):** What are the relationships between the variables identified within the Special Education Campus Needs Assessment (SECNA) instrument?

**Research Question 2 (RQ2):** What is the validity of the Special Education Campus Needs Assessment (SECNA) instrument?

**Research Question 3 (RQ3):** What is the reliability of the Special Education Campus Needs Assessment (SECNA) instrument?

## **Hypotheses**

**Hypothesis 1a (H1a):** Support will have a positive effect on Empowerment

**Hypothesis 1b (H1b):** Expectations will mediate the relationship between Equity and Support.

**Hypothesis 2 (H2):** Validity analysis will demonstrate factor loadings greater than 0.5

**Hypothesis 3 (H3):** Reliability analysis will demonstrate a Cronbach's alpha level greater than 0.6

## **Initial Survey Creation for Pilot Study**

Initially, two researchers (one professor of special education and one professor of educational leadership) designed 64 items to examine special education through the lens of the ten professional leadership strategies for the success of students with disabilities (CCSSO, 2017; National Policy Board for Educational Administration, 2015). The inclusive leadership framework guided the survey item development. Each researcher individually and collaboratively developed survey items. Nonetheless, the researchers reached a consensus for each item included in the initial survey.

Next, the researchers presented the 64 items to the Education Service Center, Region 20 (ESC-20) Advisory Committee for the Texas Education Agency's grant entitled: *Inclusive Services and Practices for Improved Student Outcomes*. This advisory group, the Inclusion in Texas Network, included regional special education experts from the state's twenty Education Service Centers (ESCs), special education faculty members from public universities in Texas, and representatives from community organizations.

Then the items were presented to a group of 18 special education lead teachers and 18 school administrators from south-central Texas. After refining and simplifying items based on feedback received from each group, the researchers reduced the initial set of 64 items to 53 statements measured on a 4- point Likert scale as noted below: 1= Strongly disagree; 2=Disagree; 3=Agree; 4=Strongly agree.

## **Survey Refinement Following Initial Data Collection**

Researchers disseminated an electronic survey and analyzed the data for validity and reliability using SPSS 25. Yurdugül (2008) recommends a minimum sample size of 30 for Exploratory Factor Analysis. According to Nunally (1978), there should be a larger number of respondents than items in the scale for the initial pilot study. There were 53 initial items on the scale, and 72 respondents from 4 campuses in 4 school districts across Texas participated in this pilot study.

Five emerging factors resulted from the exploratory factor analysis. The researchers then took the items that loaded into the five factors to the advisory board, which added other questions and offered suggestions for revision. Finally, based on feedback from representatives of the Texas Education Agency (TEA), the researchers made final revisions and subjected the survey to a larger sample for further analysis.

## **Final Survey Refinement Following Large Scale Study Data Collection**

Linacre (1999) recommends a ratio of 10 respondents per item. This survey had 53 items, so researchers determined that the second study should include 530 surveys. Through the Inclusion in Texas Network, a project director from the Education Service Center Region 20 facilitated the opportunity to participate in the study by contacting special education specialists from all twenty regions in the state of Texas, which resulted in 530 respondents from 94 campuses in 31 school districts across Texas. The researchers ran reliability and validity measures using AMOS 26. Finally, the researchers built an SEM model to assess measurement properties and test the proposed theoretical relationships between variables (constructs).

## Results

This section outlines the steps taken to validate the SECNA survey instrument.

### **Results of Exploratory Factor Analysis (EFA)**

Researchers collected electronic survey responses from 72 educators working in four public schools in four school districts in Texas and uploaded them into SPSS 25. Because no current validated model existed, the model was created from theory and had to be tested first in a pilot study using EFA techniques in a pilot study. Before factor analysis, results were analyzed for normality of frequencies. We observed normal distributions for indicators of latent factors in terms of skewness. However, we observed mild kurtosis for one question (q47), which demonstrated a kurtosis of 4.544, above the acceptable normality level proposed by Sposito et al. (1983). Therefore, (q47) was removed. These remaining kurtosis values ranged from -2.058 to 3.029, which falls within acceptable ranges suggested by Kline (2011), who recommends a kurtosis value of less than ten, and Sposito et al. (1983), who recommend 3.3 as the upper threshold for normality.

Researchers ran principal components exploratory factor analysis with varimax rotation on the remaining 52 variables. Items loaded into 13 factors. It was determined that there needed to be at least four statements associated with a factor to justify its inclusion. Factors 6-13 had less than this, so statements related to these factors were removed. The EFA was then re-run as a 5-factor analysis. This analysis yielded 40 items with a factor loading of .400 or higher. Two items had factor loadings less than .400 and were removed. The remaining 40 items loaded into five factors, as noted in Table 1 below.

### ***Reliability Results of EFA***

A Cronbach's alpha level of 0.6-0.7 indicates an acceptable level of reliability, while an alpha level of 0.8 or greater is considered very good. However, values higher than 0.95 are potentially problematic as they might indicate redundancy in survey items (Hulin et al., 2001). Nevertheless, the reliability of the SECNA instrument is strong, with Cronbach's alpha reliability coefficients ranging from .823 to .930 for each factor (See Table 1).

### ***Validity Results of EFA***

To demonstrate that items are converging to measure the same construct as one another, Costello and Osborne (2005) recommend that factor loadings should be above .400. In this study, convergent validity has been demonstrated with factor loadings all above .400 (See Table 1). Voorhees et al. (2016) recommend a maximum cut-off of 85% similarity between constructs to ensure that constructs are distinct (discriminant) from one another. Discriminant validity has also been demonstrated in this EFA, as there were no cross-correlations between constructs above 0.7.



**Table 1***Factor Loadings of SECNA: Results of EFA Principal Component Analysis*

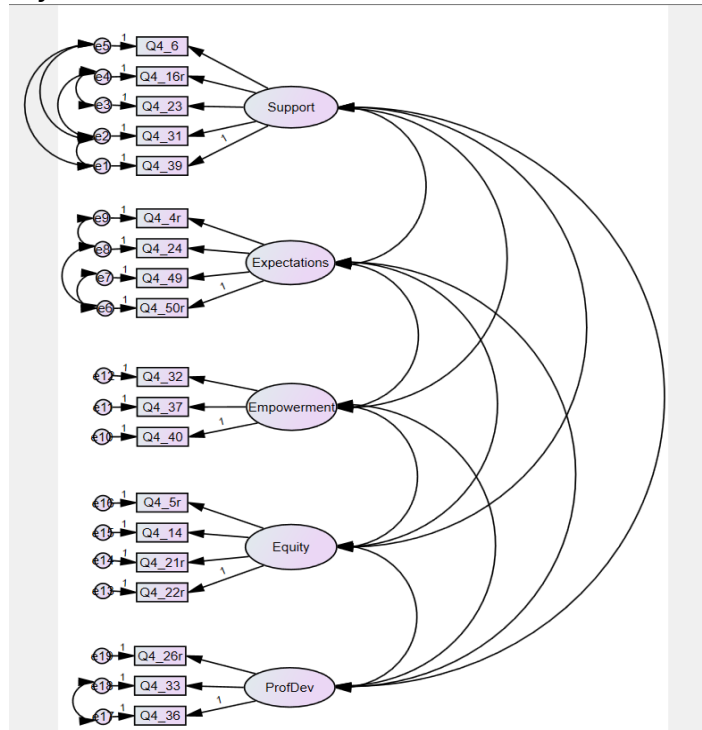
| Item Number             | Factor 1 | Factor 2 | Factor 3 | Factor 4 | Factor 5 |
|-------------------------|----------|----------|----------|----------|----------|
| 2                       | .633     |          |          |          |          |
| 6                       | .764     |          |          |          |          |
| 10                      | .757     |          |          |          |          |
| 11                      | .547     |          |          |          |          |
| 13                      | .673     |          |          |          |          |
| 16r                     | .746     |          |          |          |          |
| 17r                     | .599     |          |          |          |          |
| 23                      | .679     |          |          |          |          |
| 30                      | .545     |          |          |          |          |
| 31                      | .706     |          |          |          |          |
| 39                      | .592     |          |          |          |          |
| 44                      | .428     |          |          |          |          |
| 1                       |          | .696     |          |          |          |
| 4r                      |          | .576     |          |          |          |
| 15                      |          | .410     |          |          |          |
| 24                      |          | .570     |          |          |          |
| 41r                     |          | .646     |          |          |          |
| 48r                     |          | .745     |          |          |          |
| 49                      |          | .735     |          |          |          |
| 50r                     |          | .564     |          |          |          |
| 18                      |          |          | .416     |          |          |
| 27                      |          |          | .634     |          |          |
| 32                      |          |          | .443     |          |          |
| 34                      |          |          | .560     |          |          |
| 37                      |          |          | .624     |          |          |
| 40                      |          |          | .655     |          |          |
| 42                      |          |          | .471     |          |          |
| 45                      |          |          | .782     |          |          |
| 46                      |          |          | .552     |          |          |
| 5r                      |          |          |          | .642     |          |
| 12r                     |          |          |          | .747     |          |
| 14                      |          |          |          | .464     |          |
| 21r                     |          |          |          | .738     |          |
| 22r                     |          |          |          | .637     |          |
| 43r                     |          |          |          | .432     |          |
| 25                      |          |          |          |          | .461     |
| 26r                     |          |          |          |          | .490     |
| 33                      |          |          |          |          | .844     |
| 36                      |          |          |          |          | .826     |
| 38                      |          |          |          |          | .436     |
| <b>Cronbach's alpha</b> | 0        | .885     | .879     | .823     | .825     |

## Results of Confirmatory Factor Analysis (CFA)

A larger study was needed to complete the Confirmatory Factor Analysis of the Special Education Campus Needs Assessment. As noted earlier, surveys were collected from 530 respondents from 94 campuses in 31 school districts across Texas. The data from the electronic surveys were then analyzed for validity and reliability using AMOS 26.

After building the model in AMOS 26, researchers removed items due to model fit discrepancies. Specifically, researchers removed items either because they did not highly correlate with target variables or because they had a high covariance residual. These analyses were completed one item at a time, and researchers checked the model fit, correlations, and covariances before each deletion. In addition, to further improve the model, researchers examined error terms within variables to see if there was evidence that error terms co-varied. The results of the refined model using the steps noted above are presented in Figure 1 below:

**Figure 1**  
*Refined Model Based on CFA Results*



## Reliability Results of CFA

Within AMOS, Cronbach's alpha level is reported as CMIN/DF for the model. A CMIN/DF score less than three is considered acceptable (Marsh & Hocevar, 1985). The CMIN/DF score in this study is 2.914. Cronbach's alpha levels are also reported for each of the five factors. A Cronbach's alpha level of 0.6-0.7 indicates an acceptable level of reliability, while an alpha level of 0.8 or greater is considered very good (Hulin et al., 2001). The reliability of the SECNA instrument is strong, with Cronbach's alpha reliability coefficients ranging from .704 to .825 for each factor.

### **Model Fit Indices**

CFI is the most widely used model fit index. Byrne (1994) recommends a CFI of .93 or higher. The CFI value for SECNA is .941. Another useful measure of model fitness is the Root Mean Square Error of Approximation (RMSEA), which should be .08 or less (Browne & Cudeck, 1993). For this model, the RMSEA value is .060. Finally, the Goodness of Fit Index (GFI) measures the difference between the hypothesized model and the covariance matrix. The target score for GFI is .90 (Byrne, 1994). The GFI for the current model is .926. Thus, the CFA model for the Special Education Campus Needs Assessment is deemed a good model.

### **Validity Results of CFA**

Factor loadings above 0.7 represent good convergent validity. Factor loadings above 0.5 indicate acceptable convergent validity, particularly when developing new survey instruments (Awang, 2014). The results of this model show all regression weights were between .515 and .828 (See Table 2).

**Table 2**

*Factor Loadings from CFA for SECNA*

| Standardized Regression Weights |      | Construct    | Loadings | Squared loadings | AVE      |
|---------------------------------|------|--------------|----------|------------------|----------|
| Item                            |      |              |          |                  |          |
| Q4_33                           | <--- | ProfDev      | 0.716    | 0.512656         | 0.517527 |
| Q4_36                           | <--- | ProfDev      | 0.732    | 0.535824         |          |
| Q4_26r                          | <--- | ProfDev      | 0.71     | 0.5041           |          |
| Q4_40                           | <--- | Empowerment  | 0.711    | 0.505521         | 0.734667 |
| Q4_32                           | <--- | Empowerment  | 0.729    | 0.531441         |          |
| Q4_37                           | <--- | Empowerment  | 0.764    | 0.583696         |          |
| Q4_22r                          | <--- | Equity       | 0.62     | 0.3844           | 0.61625  |
| Q4_21r                          | <--- | Equity       | 0.767    | 0.588289         |          |
| Q4_5r                           | <--- | Equity       | 0.515    | 0.265225         |          |
| Q4_14                           | <--- | Equity       | 0.563    | 0.316969         |          |
| Q4_50r                          | <--- | Expectations | 0.571    | 0.326041         | 0.64925  |
| Q4_24                           | <--- | Expectations | 0.554    | 0.306916         |          |
| Q4_4r                           | <--- | Expectations | 0.7      | 0.49             |          |
| Q4_49                           | <--- | Expectations | 0.772    | 0.595984         |          |
| Q4_31                           | <--- | Support      | 0.828    | 0.685584         | 0.7036   |
| Q4_23                           | <--- | Support      | 0.732    | 0.535824         |          |
| Q4_16r                          | <--- | Support      | 0.687    | 0.471969         |          |
| Q4_6                            | <--- | Support      | 0.579    | 0.335241         |          |
| Q4_39                           | <--- | Support      | 0.692    | 0.478864         |          |

Discriminant validity refers to the extent to which constructs are distinct. Discriminant validity proves that the construct is unique and captures concepts other constructs do not. Average Variance Extracted (AVE) factor loadings above .5 are considered strong (Fornell & Larcker, 1981). All factors in this sample demonstrated AVE values above .5 (See AVE values in Table 2 above).

### ***Summary of CFA Findings***

Thus, researchers completed the four stages of Confirmatory Factor Analysis. The CMIN/DF is strong (2.914). Both the CFI (.941) and RMSEA (.060) appear quite good. The fit statistics suggest that the estimated model reasonably reproduces the sample covariance matrix. Further evidence suggests a good construct validity. Thus, researchers can be fairly confident that the measures within this instrument behave as they should in terms of unidimensionality in measuring five unique aspects of special education at the campus level and in how these measures interact with each other.

### **Results of Structural Equation Model (SEM)**

Structural Equation Modelling (SEM) is an integrated model that estimates a series of dependence relationships among a set of factors represented by multiple measured variables. SEM helps assess measurement properties and tests the proposed theoretical relationships between variables (constructs). Within this study, both direct effects and indirect effects are hypothesized.

### ***Hypotheses***

**Direct Effects.** H1a. Support has a positive effect on Empowerment. In an age of increased standardization, it can be difficult for teachers to feel empowered. Louws et al. (2020) examined this challenge in a study of 50 school leaders from the Netherlands. They found that principals are likelier to feel empowered when they provide support and professional agency to their teachers. Based on this premise, we have hypothesized within our SEM model that support will positively affect empowerment.

H1b. Support has a positive effect on Professional Development. Bryant et al. (2020) examined principals' support for their teachers. One of the most important ways for schools to support teachers is to provide them with high-quality professional learning. Based on this premise, we have constructed our SEM model to hypothesize that support will positively affect professional development.

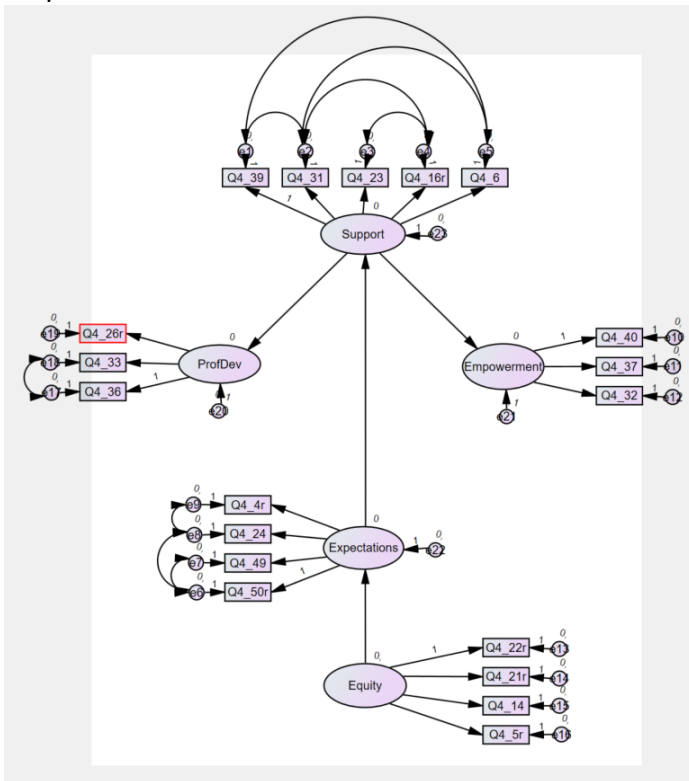
**Mediated Effects.** H2a. Expectations mediate the relationship between equity and support. In their seminal study on the Pygmalion effect, Rosenthal and Jacobson (1968) demonstrated teacher expectations' impact on student achievement. Since then, further studies have examined the impact of equity beliefs on teacher expectations (Amiot, et al., 2020). We explore these works in tandem and hypothesize that equity beliefs will impact expectations, affecting the support provided for student success.

H2b. Support mediates the relationship between expectations and professional development. Fuhrman, et al. (2009) postulate that while having high expectations is important to student achievement, having high standards alone, without the necessary support, is insufficient to achieve student success. This concept, coupled with the knowledge that supportive leaders find ways to provide teachers with high-quality professional learning (Bryant et al., 2020), leads us to hypothesize that support mediates the relationship between expectations and professional development.

H2c. Support mediates the relationship between expectations and empowerment. Principals who think highly of their teachers' abilities empower them to do their jobs. (Kiral, 2020). Coupled with the research indicating that teachers who receive the support they need are more likely to feel empowered (Louws et al., 2020), we hypothesize that support mediates the relationship between expectations and empowerment.

Figure 2 presents the structural model we propose:

**Figure 2**  
*Proposed Structural Model*



Checking model fit is important to test the strength of this model. The SEM model should generally have an improved model fit compared to the CFA model, which is the case for this study. The CMIN/DF score for the CFA model was 2.914. Now that we have added directionality, the CMIN/DF score has improved to 2.875. Additionally, the CFI (.940) and RMSEA (.060) remained quite good. We conducted multiple linear regression analyses for all predictor and dependent variables to test for multicollinearity. We observed no VIFs greater than 2.039, which is far lower than the recommended upper limit of 10 (Haier et al., 1995).

**Results of SEM Hypothesis**

**Direct Effects.** H1a. Support has a positive effect on Empowerment. Result: H1a is confirmed. Evidence: Beta = 0.934\*\*\* (p<0.001) (See Table 3).

H1b. Support has a positive effect on Professional Development. Result: H1b is confirmed. Evidence: Beta = 0.902\*\*\* (p<0.001) (See Table 3).

**Mediated Effects.** H2a. Expectations mediate the relationship between equity and support. Result: H2a is confirmed. Evidence: Confidence Intervals: Lower Bound =0.585, Upper Bound = 0.719, p<.001 (See Tables 4, 5, and 6).

H2b. Support mediates the relationship between expectations and professional development. Result: H2b is confirmed. Evidence: Confidence Intervals: Lower Bound =0.667, Upper Bound = 0.783, p<.001 (See Tables 4, 5, and 6).

H2c. Support mediates the relationship between expectations and empowerment. Result: H2c is confirmed. Evidence: Confidence Intervals: Lower Bound =0.698, Upper Bound = 0.807, p<.001 (See Tables 4, 5, and 6).

**Table 3**

*Standardized Regression Weights from SECNA Structural Equation Model*

|              |      |              | Estimate | S.E. | C.R.   | P   | Label  |
|--------------|------|--------------|----------|------|--------|-----|--------|
| Expectations | <--- | Equity       | .808     | .084 | 9.466  | *** | par_24 |
| Support      | <--- | Expectations | .806     | .092 | 10.308 | *** | par_25 |
| Empowerment  | <--- | Support      | .934     | .063 | 13.779 | *** | par_26 |
| ProfDev      | <--- | Support      | .902     | .072 | 13.542 | *** | par_27 |

\*\*\* (p<0.001)

**Table 4**

*Bootstrap Analysis of Lower Bound Confidence Interval for Standardized Indirect Effects*

|                     | Equity | Expectations | Support | ProfDev | Empowerment |
|---------------------|--------|--------------|---------|---------|-------------|
| <b>Expectations</b> | .000   | .000         | .000    | .000    | .000        |
| <b>Support</b>      | .585   | .000         | .000    | .000    | .000        |
| <b>ProfDev</b>      | .520   | .667         | .000    | .000    | .000        |
| <b>Empowerment</b>  | .541   | .698         | .000    | .000    | .000        |

**Table 5**

*Bootstrap Analysis of Upper Bound Confidence Interval for Standardized Indirect Effects*

|                     | Equity | Expectations | Support | ProfDev | Empowerment |
|---------------------|--------|--------------|---------|---------|-------------|
| <b>Expectations</b> | .000   | .000         | .000    | .000    | .000        |
| <b>Support</b>      | .719   | .000         | .000    | .000    | .000        |
| <b>ProfDev</b>      | .658   | .783         | .000    | .000    | .000        |

|             | Equity | Expectations | Support | ProfDev | Empowerment |
|-------------|--------|--------------|---------|---------|-------------|
| Empowerment | .683   | .807         | .000    | .000    | .000        |

**Table 6**

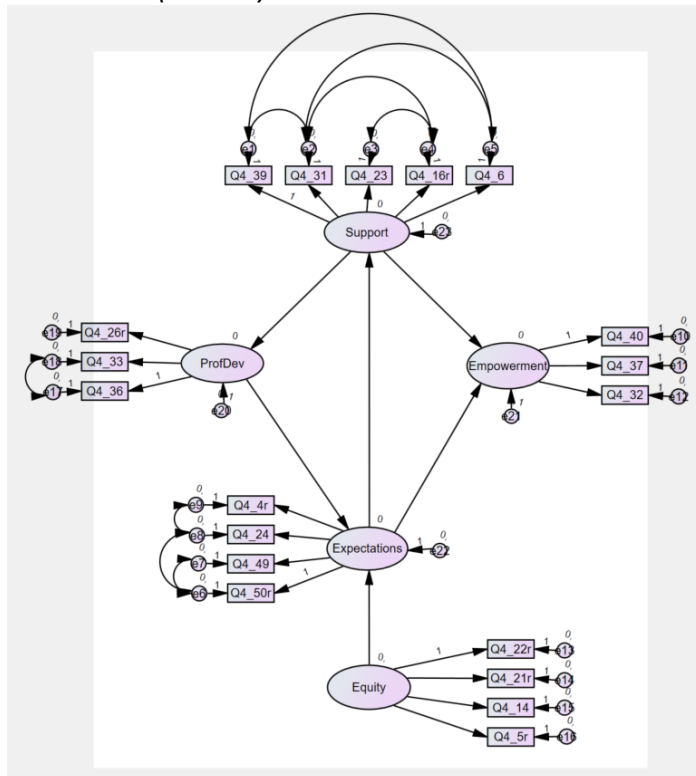
*Bootstrap Analysis of Standardized Indirect Effects: Two-Tailed Significance*

|              | Equity | Expectations | Support | ProfDev | Empowerment |
|--------------|--------|--------------|---------|---------|-------------|
| Expectations | ...    | ...          | ...     | ...     | ...         |
| Support      | .001   | ...          | ...     | ...     | ...         |
| ProfDev      | .001   | .001         | ...     | ...     | ...         |
| Empowerment  | .001   | .001         | ...     | ...     | ...         |

Finally, we tested various nested models (also called rival models), which we compared with our structural model; however, none of the nested models provided as strong of a model as the structural model presented above. Here is one alternative (nested) model we considered (See Figure 3 below). In this model, you can see we explored the possibility that professional development had a positive impact on expectations. However, this proved not to be significant. We also explored the possibility that expectations positively impacted empowerment, but this proved not significant.

**Figure 3**

*Alternative (Nested) Model*



## **Summary of SEM Findings**

Thus, the Structural Equation Model has been completed. The CMIN/DF is strong (2.85). Both the CFI (.940) and RMSEA (.060) appear quite good. The fit statistics suggest that the estimated model reasonably reproduces the sample covariance matrix. Further evidence suggests a good construct validity. The proposed theoretical relationships between variables were confirmed. Thus, the researchers are confident in presenting the SECNA as a new valid, reliable tool that can assist researchers and practitioners in measuring five unique aspects of special education at the campus level.

## **Discussion**

Accurately identifying and measuring special education campus needs is a vital consideration for effective school leaders. This study presents the development of a new instrument that measures five aspects of special education needs as perceived by the educators within that school and has potential implications for practice and further research.

### **Implications for Practice**

One potential implication for practice is having school leaders use the SECNA instrument to conduct an annual survey to take the pulse of special education needs at the campus level. These can vary from year to year, so conducting an annual assessment will allow school leaders to identify changes over time and address them accordingly. Another way that school leaders could use this instrument is to provide campus-wide professional development to staff based on common areas of need that emerge from survey results (See Appendix A). This tool is also useful to principals or other educational leaders interested in conducting research to positively impact educational attainment for students receiving special education services. See Appendix B for instructions on how to administer and score the instrument.

### **Recommendations for Further Research**

The development of the SECNA instrument highlights the need to measure educator perceptions of special education campus needs. However, many decisions on resource allocation, staffing, and support for special education are made at the district level. Thus, a further recommendation for researchers would be to develop a companion instrument designed to measure special education needs at the district level. The researchers recognize that this instrument only measures the following specific factors related to special education needs: support, expectations, equity, empowerment, and professional development. There are a variety of other educator factors that likely also impact special education services. For example, some states currently have no requirement that general education teachers receive any sort of specialized training in special education. Thus, it would be interesting to measure their sense of self and/or collective efficacy when working with students receiving special education services.



## **Conclusion**

The items included in the SECNA were first identified due to an exploratory principal components analysis of 64 items created to ascertain educator perceptions of the special education needs at the campus level. After completing exploratory factor analysis, 53 items were found to measure five important aspects of special education campus needs — support, expectations, empowerment, equity, and professional development. The same five factors of special education needs were explored in a more comprehensive study of 94 schools across the state of Texas. Confirmatory factor analysis revealed a stable and consistent factor structure for the 19-item Special Education Campus Needs Assessment (SECNA). The factor analysis demonstrated the validity of this instrument; all the items loaded on the theoretically appropriate factors. In addition, the three scales all demonstrated high reliability. In sum, the Special Education Campus Needs Assessment (SECNA) represents a valid and reliable tool that can be employed to assess educators' perceptions of special education campus needs.

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## Appendix A: Special Education Campus Needs Assessment

This scale measures the needs of the campus in relation to students receiving special education services. All teachers are encouraged to respond to this scale. Please read each item and select the answer that best describes your feeling toward that item. Please answer all items. Answers are confidential.

|   |  | Strongly Disagree | Disagree | Agree | Strongly Agree |
|---|--|-------------------|----------|-------|----------------|
| 1 | This campus has low expectations for students receiving special education services.  | 1                 | 2        | 3     | 4              |
| 2 | Students receiving special education services rarely participate in extracurricular activities on this campus.   | 1                 | 2        | 3     | 4              |
| 3 | This campus receives sufficient support from the district level in order to address the needs of students receiving special education services.                                  | 1                 | 2        | 3     | 4              |
| 4 | Teachers on this campus take time to get to know all of their students, including students receiving special education services.   | 1                 | 2        | 3     | 4              |
| 5 | This school could do a better job of supporting teachers to help them work effectively with students receiving special education services.                                       | 1                 | 2        | 3     | 4              |
| 6 | Educators on this campus do not promote a child-centered education.  | 1                 | 2        | 3     | 4              |
| 7 | When a general education teacher experiences challenges working with a student receiving special education services, they receive the support they need to service that student. | 1                 | 2        | 3     | 4              |
| 8 | Instructional practices on this campus are rigorous for students receiving special education services.   | 1                 | 2        | 3     | 4              |
| 9 | This campus does not have an effective induction and mentoring process for new personnel who will be working with students receiving special education services                  | 1                 | 2        | 3     | 4              |

|    |  | Strongly Disagree | Disagree | Agree | Strongly Agree |
|----|--|-------------------|----------|-------|----------------|
| 10 | Teachers who work with students receiving special education services on this campus lack social-emotional insight.   | 1                 | 2        | 3     | 4              |
| 11 | School leaders make strong efforts to understand all students' and staff members' backgrounds and cultures.  | 1                 | 2        | 3     | 4              |
| 12 | School leaders support teachers to help students receiving special education services achieve success.   | 1                 | 2        | 3     | 4              |
| 13 | General education teachers on this campus receive annual training in how best to work with students receiving special education services.                      | 1                 | 2        | 3     | 4              |
| 14 | Leaders of this school have high expectations for all students including students receiving special education services.  | 1                 | 2        | 3     | 4              |
| 15 | School leaders encourage faculty-initiated improvement of special education programs and practices.  | 1                 | 2        | 3     | 4              |
| 16 | Sufficient resources are allocated on this campus to meet the needs of students receiving special education services.  | 1                 | 2        | 3     | 4              |
| 17 | This campus could do a better job using assessment data to monitor progress and improve instruction for students receiving special education services.         | 1                 | 2        | 3     | 4              |
| 18 | Leaders on this campus develop and promote innovation, encouraging inquiry and experimentation in an effort to improve learning for all students.              | 1                 | 2        | 3     | 4              |
| 19 | This school provides a range of professional development trainings to ensure teachers are prepared to work with students receiving special education services. | 1                 | 2        | 3     | 4              |

## Appendix B: Instructions for Administering and Scoring the SECNA Instrument

**Administering the Instrument:** To yield the best results, it is recommended that this instrument be administered campus wide and made available to all educators on campus. Surveys can either be administered electronically or via pencil and paper. In order to ensure confidentiality and encourage candid responses, teachers should not be asked to sign their name and there should be no identifying code placed on the surveys that could link the response back to a specific teacher. In order to obtain a robust response rate, it is recommended that the survey be completed as part of a faculty meeting. The survey instrument should take approximately 10 minutes to complete.

**Scoring the Instrument:** The items are scored by assigning each item to a 4- point Likert scale: 1= Strongly disagree; 2= Disagree; 3=Agree; 4=Strongly agree. Each item is scored for each respondent, and some items will need to be reverse scored. When an item is reverse scored a 1 becomes a 4, a 2 becomes a 3, a 3 becomes a 2, and a 4 becomes a 1.

Step 1: Score each item for each respondent (1, 2, 3, or 4)

Step 2: Reverse score items 2, 5, 6, 9, 10, and 17.

Step 3: Calculate the average school score for each item. Add all of the scores for each column and divide it by the number of teacher respondents. Round the scores to the nearest hundredth. This score is the average school item score. Verify there are 19 school item scores before you proceed.

Step 4:

**Support (SUP)** = 3+5r+7+12+16  
**Expectations (EXP)** = 1+8+14+17r  
**Empowerment (EMP)** =11+15+18  
**Equity (EQU)** = 2r+4+6r+10r  
**Professional Development (PD)** =9r+13+19

These five scores represent educators’ perceptions of the needs of the campus pertaining to students receiving special education services.

**Computing Standardized Scores of the SECNA:** You may want to compare your scores on each of the 5 factors with other schools. To do this, you will need to standardize each school score. The current comparative database is drawn from a large, diverse sample of schools in Texas. The average scores and standard deviations for each subscale are summarized below.

### *Average scores for Texas*

| Scale                         | Mean | Standard Deviation |
|-------------------------------|------|--------------------|
| Support (SUP)                 | 2.68 | .60                |
| Expectations (EXP)            | 2.95 | .56                |
| Empowerment (EMP)             | 2.92 | .60                |
| Equity (EQU)                  | 3.27 | .53                |
| Professional Development (PD) | 2.51 | .69                |

Convert the school subtest scores to a standardized score with a mean of 500 and a standard deviation of 100, called the SdS score.

Use the following formula:

$$\text{SdS for SUP} = 100(\text{SUP} - 2.68) / .60 + 500$$

1. Compute the difference between your school score on Support (SUP) and the mean for the normative sample (SUP-2.68). Next, multiply the difference by one hundred [100(SUP-2.68)]. Then divide the product by a standard deviation of the normative sample (.60). Finally, add 500 to the result. You have computed a standardized score (SdS) for Support.
2. Repeat the process for each dimension as follows:

$$\text{SdS for EXP} = 100(\text{EXP} - 2.95) / .56 + 500$$

$$\text{SdS for EMP} = 100(\text{EMP} - 2.92) / .60 + 500$$

$$\text{SdS for EQU} = 100(\text{EQU} - 3.27) / .53 + 500$$

$$\text{SdS for PD} = 100(\text{PD} - 2.51) / .69 + 500$$

You have standardized your school scores against the normative data in the Texas sample. For example, if your school score is 400 on Support, it is one standard deviation below the average score on Support for all the schools in the sample. In other words, the school has more Support than only 16% of other schools. See below for the range of the scores.

If the score is 200, it is lower than 99% of the schools.

If the score is 300, it is lower than 97% of the schools.

If the score is 400, it is lower than 84% of the schools.

If the score is 500, it is average.

If the score is 600, it is higher than 84% of the schools.

If the score is 700, it is higher than 97% of the schools.

If the score is 800, it is higher than 99% of the schools



# Differences in Industry-Based Certification Attainment Rates of Texas High School Graduates by Their Ethnicity/Race: A Statewide, Multiyear Analysis

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## **Abstract**

In this article, industry-based certification attainment rates were compared by student ethnicity/race as reported by the Texas Education Agency for the 2019-2020, 2020-2021, and 2021-2022 school years. Through analyses of Texas statewide data, statistically significant differences were revealed in industry-based certification attainment rates among Black, Hispanic, White, and Asian high school graduates. Black and Asian graduates had lower industry-based certification attainment rates than Hispanic and White graduates across the years analyzed. Of importance was that industry-based certification attainment increased for all ethnic/racial groups across the three school years.

*Keywords:* Black; Hispanic; White; Asian; Ethnicity/race; Industry-based certification; Industry 4.0

## Introduction

Schools throughout the United States serve students from various backgrounds. The goal of these institutions is to impart knowledge to assist students in becoming contributing members of society. However, this relatively straight-forward concept has been complicated by governmental policy, federal and state spending requirements, standardized testing, and academic accountability (Lerman, 2008). Regardless, education systems continue to evolve and refine their methods of instruction because well-educated students can ultimately contribute to the economic development of the United States (Kless et al., 2013). Career preparation (O'Lawrence, 2017) is one such example of instructional evolution, as the U.S. economy has been predicted to increase by 8.3 million jobs from 2021 to 2031 (Bureau of Labor Statistics, 2022). Growing demand has been attributed to retirement, the evolution of skills, and the need for technical expertise.

A factor contributing to the demand for skilled labor is the emergence of the fourth industrial revolution, referred to as Industry 4.0 (Catal & Tekinerdogan, 2019). The concept of Industry 4.0 is based on the integration of data, digital communication, collaboration across information platforms, and automated manufacturing (Catal & Tekinerdogan, 2019). The emergence of Industry 4.0 has led to a disruption in educational processes resulting in the demand for refined instructional programming that develops the skills demanded by employers (AlMalki & Durugbo, 2023). To address efficiently the developing demands for skills created by industry, AlMalki and Durugbo (2023) presented the recommendation that industry, education, and government should work together to establish a communication network focused on reforming educational processes. Christiansen et al. (2022) supported AlMalki and Durugbo's (2023) recommendation and added that the introduction of disruptive technology into the manufacturing process created new requirements and tasks for operation managers and technicians. Christiansen et al. (2022) also noted that students must learn at a faster rate to keep pace with industry demands and that real-time experience gained from workplace settings can be an effective avenue for developing such skills.

Evolving technology and the automation of networking systems have quickly altered manufacturing processes, resulting in the demand to transform academic programs that prepare students with requisite skills (Catal & Tekinerdogan, 2019). Christiansen et al. (2022) reported that because of the rapid evolution of skills required to manage and operate workplace settings in Industry 4.0, students must be trained to think critically, swiftly, and across disciplines. Therefore, the importance of preparing students for the demands created by Industry 4.0 has been identified as a strategic responsibility of educators and institutions to address adequately the multidisciplinary challenges facing today's workplace (AlMaki & Durugbo, 2023).

Despite focused efforts on student performance by state and federal agencies, the United States has continued to fall behind competing countries in postsecondary achievement (Davis et al., 2013). Researchers (e.g., Harvey et al., 2013) have indicated that students must develop foundational skills in mathematics and reading while in high school to be prepared for success in either postsecondary education or in their chosen career. However, many students, including students served by special education and students of color (Barnes & Slate, 2014; Lê & Slate, 2020), struggle to meet this expectation. As a result, educators have been encouraged to

develop support programs that bridge gaps in understanding, with the most effective interventions beginning at early ages (Abraham et al., 2014). The benefit of methodical approaches to instruction has been identified to affect the retention of information critical to student success. Conley (2011) also contended that as teachers move away from surface-level instruction toward a learning environment where students make connections between information and application, critical reasoning skills will develop and cognition levels will increase. Chandler et al. (2014) documented that as career-based education programs transition to more advanced instructional applications, students will be better prepared to fill career openings that have been outpaced by over educated, yet underqualified candidates for employment.

Lerman (2008) stated that over half of the manufacturing firms examined reported a shortage of skills among existing or available employees that was compromising their ability to produce at favorable levels, resulting in the inability to provide the optimum service to their customers. Holman et al. (2017) established that competencies needed to fill the growing demand for skilled labor can be developed in high school students through well-planned Career and Technical Education programs by promoting career attainment following high school. Further, Bettencourt et al. (2022) reported that high school Career and Technical students benefitted from teachers intentionally planning educational opportunities that develop critical thinking skills.

Specifically, skills identified by industry professionals as being in highest demand included “analytical thinking and innovation, active learning, critical thinking, complex problem-solving capability, and skills in self-management such as stress tolerance and flexibility” (Li, 2022, 4.1). Conley (2008) noted that students who have a deeper understanding of content can identify a problem from a larger context, extract the issue, formulate a solution, and add it back to the overall concept. Further, Bühler et al. (2022) documented that technology enhanced, student-centered curriculum was an integral component of a quality education program.

Goldring (2017) presented a progressive approach to providing the skills needed by industry that involved the inclusion of certifications into the curriculum. Certifications included in this study were incorporated into a digital marketing curriculum that allowed students to participate in self-paced online learning that focused on the skills needed for entry level positions in the field of marketing (Goldring, 2017). Goldring (2017) also identified that students participating in the program benefitted from the inclusion of certifications because they were “attainable, allowed for the application of learning, were recognized by employers, were associated with established brands, and were self-directed” (p. 36). Maxwell and Gallagher (2020) also recognized the benefits of certifications and noted that they were increasingly becoming known as microcredentials, which provided job candidates with evidence they had obtained skills in areas that were demanded by employers (Maxwell & Gallagher, 2020).

In their research investigation into the understanding of student perceptions of college and career readiness, Bettencourt et al. (2022) reported that high school students valued certifications that were gained during preparation programs and believed they would assist them in achieving employment in associated career fields. Porterfield and Hendricks (2018) supported this finding and determined that students who possessed certifications had a competitive advantage over those who did not when seeking entry into the job market.

In the State of Texas, public school systems and individual campuses are rated through the Texas Education Agency Accountability System (Texas Education Agency, 2022c). The Texas Education Agency initially began tracking College Readiness indicators in 2006, at which time reading and mathematics scores on the Texas Assessment of Knowledge and Skills, SAT, and ACT were used as the measurement indicators (Moore et al., 2014). Over time, the measurement evolved to include 10 indicators of College, Career, and Military Readiness (Texas Education Agency 2022a) that are outlined and published in the Texas Academic Performance Report.

To prepare adolescents for high wage, high demand careers, the State of Texas incorporates technical training into the K-12 public school curriculum through Career and Technical Education courses and integrates career-based skill measures into the Texas Education Agency Accountability System (Texas Education Agency, 2022a). Through this system, the Texas Education Agency identifies 292 industry-based certifications (Texas Education Agency, 2022b) that can be made available to Texas high school students. The industry-based certifications are test-based certifications offered by and accredited through a third-party provider (Goldring, 2017). Each certification is intended to provide evidence that a student has gained the basic skills required to enter the workforce in the corresponding industry.

The connection between educational preparation and future career opportunities has been reported to be especially important for students of color and underprivileged populations who have traditionally experienced low postsecondary readiness rates (Barnes & Slate, 2014; Chandler et al., 2014; Moore et al., 2010). Davis et al. (2013) identified that certain ethnic/racial groups were inadequately prepared for the transition from high school to college and careers. Academic achievement gaps were reported to exist for Hispanic and Black students when compared to all students in aggregate (Davis et al., 2013). Moore et al. (2010) confirmed this finding in a study of college readiness in reading and mathematics during the 2006-2007 school year. Moore et al. (2010) documented that 44.76% of graduating seniors were college ready in reading and 48.16% were college ready in mathematics. However, 37.04% of Hispanic students were determined to be college ready in reading and 39.73% in mathematics, compared to 33.87% of African American students who were identified to be college ready in reading and 29.15% who were college ready in mathematics (Moore et al, 2010). Davis et al. (2013) supported this finding and reported that Asian and White students demonstrated higher ACT composite scores than Black or Hispanic students.

Barnes and Slate (2014) reported similar findings in a study of college readiness that included the 2006-2007, 2007-2008, and 2008-2009 school years. White students were reported to have higher college-readiness rates than Hispanic and Black students in reading, mathematics, and both subjects (Barnes & Slate, 2014). They further established that Hispanic and Black students increased their college-readiness rates across the same years; however, White students also increased their college-readiness rates across the same period of time, resulting in no gap closure between the student groups (Barnes & Slate, 2014).

Byars-Winston (2013) extended the analysis of ethnic/racial evaluation to the workforce and reported that occupations in STEM related fields were increasing in the United States, but the proportion of positions occupied by people of color was low. Byars-Winston (2013) associated this finding to the availability of skilled talent within the employment pool, which was reflective of students who displayed academic proficiency in core content areas similar to

those areas evidenced by Barnes and Slate (2014), Davis et al. (2013), and Moore et al. (2010). Byars-Winston (2013) contended that educational practices must evolve to increase the number of students of color participating in STEM related educational programs to meet the growing demands of industry. Lerman (2008) made a similar observation and documented that instructional programs that require students to take multiple Career and Technical Education courses developed the skills demanded by employers and led to notable increases in employment and earnings, especially among students of color.

In response to reports that the United States has fallen behind competing countries in postsecondary achievement (Davis et al., 2013), researchers have established that students must develop critical thinking skills and proficiency in the areas of mathematics and reading while in high school (Harvey et al., 2013). This recommendation is supported by the increasing demand for evolving skills resulting from Industry 4.0 (Catal & Tekinerdogan, 2019). Researchers have established that skills critical to employability can be developed in the instructional setting (e.g., Harvey et al., 2013; Holman et al., 2017; Peck, 2018). One approach identified to address the development of employability skills is through the inclusion of certifications in the curriculum (Goldring, 2017). Although the inclusion of such certifications can serve as an effective mechanism to address the demands for labor, concerns exist with the level of preparedness among students of color. Researchers (e.g., Barnes & Slate 2014; Byars-Winston, 2013; Davis et al., 2013; Moore et al., 2010) have presented findings that illustrate Black and Hispanic students experience lower levels of academic proficiency when compared to their Asian and White counterparts. However, empirical research articles exclusive to differences between industry-based certification attainment by ethnicity/race in Texas public schools could not be located. Therefore, to assess marketable skills, it is critical to ascertain the rate in which industry-based certifications are achieved by Texas high school graduates, as well as any disparities that may exist in attainment by ethnicity/race.

### **Statement of the Problem**

The evolution of the modern workplace has resulted in a transformation of employee skillsets. Automation, digitization, and collaboration across network platforms have been contributing factors to this change (Catal & Tekinerdogan, 2019). The demand for skills created by the emergence of Industry 4.0 has led to the transformation of instructional programs in education settings that are designed to provide students with the skills required by employers (AlMalki & Durugbo, 2023). Inherent to the growing demand to fill skilled labor positions is the need to analyze education programs. Embedded within that analysis is the intent to identify the ethnic and/or racial background of students completing associated preparation programs. Davis et al. (2013) indicated that certain ethnic/racial groups were not prepared for the transition from high school to college or career. Specifically, disparities have been identified in academic achievement of Black and Hispanic students when compared to all students (Davis et al., 2013; Moore et al., 2010). Moore et al. (2010) determined that Black and Hispanic students had lower college readiness rates in mathematics and reading than White and Asian students. Similarly, Barnes and Slate (2014) documented that Black and Hispanic students had lower college readiness rates than White students. However, a gap exists in the existing research literature regarding any ethnic/racial disparities in the attainment of industry-based certifications.

## **Purpose of the Study**

The purpose of this study was to determine the relationship of ethnicity/race to the attainment of industry-based certifications made available by the Texas Education Agency in Texas public high schools. Data were obtained on industry-based certification attainment for the 2019-2020, 2020-2021, and 2021-2022 school years. All data sets were made publicly available by the Texas Education Agency through the Texas Academic Performance Reports. The analyses included a comparison of industry-based certifications earned by Black students, Hispanic students, White students, and Asian students for each school year included in the study. Also presented was the identification of trends that were present by ethnicity/race across all three school years included in the study. Observations and findings are presented to the reader to assist in making programmatic decisions in Texas public high school settings.

## **Significance of the Study**

Certain ethnic/racial groups have been identified to be underprepared for the transition from high school to college or careers. Specifically, academic achievement gaps have been recognized between students of color and White students (Davis et al., 2013). With 8.3 million jobs predicted to be added to the U.S. Economy from 2021 to 2031 (Bureau of Labor Statistics, 2022), the need exists to prepare all students for entry into the workforce. To fill this demand, the suggestion has been made that industry, government, and education should triangulate efforts to reform educational processes for the purpose of teaching skills demanded by industry that have arisen from technological innovation and advancement (AlMalki & Durugbo, 2023). One mechanism identified to address the needs of industry is the attainment of industry-based certifications. To ensure the adequate development of skilled labor, public schools must analyze student performance measures (i.e., the attainment of industry-based certifications), while also monitoring the demographic makeup of the students involved. Analyzing the ethnicity/race of Texas public high school students who earn industry-based certifications provides policy makers, campus and district administrators, and other individuals in decision-making roles the information needed to make informed programmatic decisions, while also adding to an under analyzed portion of the Texas Public School Accountability System.

## **Research Questions**

The following research questions were addressed in this study: (a) What is the difference in Texas Education Agency approved industry-based certification attainment rates of Texas high school graduates by their ethnicity/race?; and (b) What trend is present in the Texas Education Agency approved industry-based certification attainment rates by Texas high school students by ethnicity/race across the 2019-2020 school year through the 2021-2022 school year? The first research question was answered for each of the 2019-2020, 2020-2021, and 2021-2022 school years, and the second research question involved analyses across all three school years.

## Method

### Research Design

This study entailed a quantitative analysis of potential differences in industry-based certification attainment by ethnicity/race. A causal-comparative non-experimental research design was employed to analyze the relationship between the independent and dependent variables; however, generalizations cannot be made and specific cause-effect relationships cannot be determined (Johnson & Christensen, 2020). The independent variable was the ethnicity/race (i.e., Black, Hispanic, White, and Asian) of high school graduates. Data from the four largest ethnic/racial groups of students in Texas were analyzed in this article. The dependent variables were industry-based certifications earned by each ethnic/racial student group. Archival data obtained from the Texas Education Agency were used to complete the analysis.

### Participants and Instrumentation

Participants included in this study were former students who were graduates of comprehensive Texas public high schools during the 2018-2019, 2019-2020, and 2020-2021 school years who earned an industry-based certification recognized by the Texas Education Agency. Data analyzed were obtained from the Texas Academic Performance Reports for the 2019-2020, 2020-2021, and 2021-2022 school years. As such, industry-based certification data reported annually in the Texas Academic Performance Report are from the graduating class of the previous school year (e.g., industry-based certification data reported in the 2021-2022 Texas Academic Performance Report were from the 2020-2021 graduating class), representing a one-year lag in data (Texas Education Agency, 2022a).

Specific variables analyzed were state-wide industry-based certification attainment rates for Black high school graduates, Hispanic high school graduates, White high school graduates, and Asian high school graduates. Attainment rates for each student group were reported in the Texas Academic Performance Report and were calculated by dividing the number of graduates for a specific school year who earned an approved industry-based certification by the number of annual graduates for that same school year (Texas Education Agency, 2022a).

## Results

### Data Analysis

Prior to conducting inferential statistical analyses, the underlying assumptions of these procedures were checked. Although not all assumptions were met, Field (2018) maintains that the parametric dependent samples *t*-test is inherently robust to accommodate violations to the underlying assumptions. Therefore, parametric dependent samples *t*-tests were conducted to analyze potential differences in industry-based certification attainment rates by ethnicity/race.

## Results for Industry-Based Certification Attainment Rates by Ethnicity/Race for the 2018-2019, 2019-2020, and 2020-2021 School Years

Industry-based certification attainment rates for the 2018-2019, 2019-2020, and 2020-2021 school years were analyzed by ethnicity/race to determine the existence of potentially statistically significant differences. Because of how data are reported on the Texas Academic Performance Reports, comparisons could only be made between pairs of ethnic/racial groups. Industry-based certification attainment rates are reported in connection with student demographic characteristic. That is, they are reported separately for Black students, separately for Hispanic students, and so on. As such, differences in industry-based certification attainment rates will be presented in the following pairs: (a) Black and Hispanic; (b) Black and White; (c) Black and Asian; (d) Hispanic and White; (e) Hispanic and Asian; and (f) White and Asian.

The first year of data analyzed was from the 2018-2019 school year and included a comparison of Black and Hispanic Texas high school graduates. The difference was statistically significant,  $t(1307) = -14.47, p < .001$ , Cohen's  $d = 0.40$ , a small effect size (Cohen, 1988). Industry-based certification attainment rates were statistically significantly higher for Hispanic high school graduates, 4.33% higher, than they were for Black students.

A statistically significant difference was also present in industry-based certification attainment rates between Black and Hispanic Texas high school graduates for the 2019-2020 school year,  $t(1331) = -15.79, p < .001$ . The effect size was small, Cohen's  $d = 0.43$  (Cohen, 1988). Industry-based certification attainment rates were statistically significantly higher for Hispanic high school graduates, 5.22% higher, than they were for Black students.

**Table 1**

*Descriptive Statistics for the Percentages of Black and Hispanic Texas High School Graduates who Earned an Industry-Based Certification in the 2018-2019 Through the 2020-2021 School Years*

| School Year and Comparison | <i>n</i> of schools | <i>M%</i> | <i>SD%</i> |
|----------------------------|---------------------|-----------|------------|
| 2018-2019                  |                     |           |            |
| Black                      | 1,308               | 3.91      | 9.83       |
| Hispanic                   | 1,308               | 8.24      | 12.43      |
| 2019-2020                  |                     |           |            |
| Black                      | 1,332               | 5.34      | 12.14      |
| Hispanic                   | 1,332               | 10.56     | 14.76      |
| 2020-2021                  |                     |           |            |
| Black                      | 1,351               | 8.71      | 16.12      |
| Hispanic                   | 1,351               | 16.30     | 19.10      |

*Note.* The *n* in the table above denotes the number of high schools included in the study.

For the 2020-2021 school year, a statistically significant difference was revealed for industry-based certification attainment rates between Black and Hispanic high school graduates,  $t(1350) = -16.09, p < .001$ , Cohen's  $d = 0.44$ , a small effect size (Cohen, 1988). During the 2020-2021 school year, Hispanic students had a higher industry-based certification



attainment rate, 7.59% higher, than Black students. Descriptive statistics for industry-based certification attainment rates between Black and Hispanic Texas high school graduates for the three school years are provided in Table 1.

In reference to the second pairing of student groups, a statistically significant difference was identified to exist between Black and White Texas high school graduates for the 2018-2019 school year,  $t(1266) = -11.20, p < .001$ . The effect size was small, Cohen's  $d = 0.32$  (Cohen, 1988). Industry-based certification attainment rates were statistically significantly higher for White students, 3.82% higher, than they were for Black students.

A statistically significant difference was present in industry-based certification attainment rates between Black and White high school graduates for the 2019-2020 school year,  $t(1282) = -12.90, p < .001$ . The effect size was small, Cohen's  $d = 0.36$  (Cohen, 1988). In 2019-2020, industry-based certification attainment rates were statistically significantly higher for White students, 5.23% higher, than for Black students.

A statistically significant difference in industry-based certification attainment rates between Black and White Texas high school graduates was also revealed for the 2020-2021 school year,  $t(1304) = -14.12, p < .001$ , Cohen's  $d = 0.39$ , a small effect size (Cohen, 1988). White students had a statistically significantly higher industry-based certification attainment rate, 7.48% higher, than Black students. Descriptive statistics for industry-based certification attainment rates for Black and White Texas high school graduates for the three school years are presented in Table 2.

**Table 2**

*Descriptive Statistics for the Percentages of Black and White Texas High School Graduates who Earned an Industry-Based Certification in the 2018-2019 Through the 2020-2021 School Years*

| School Year and Comparison | <i>n</i> of schools | <i>M%</i> | <i>SD%</i> |
|----------------------------|---------------------|-----------|------------|
| 2018-2019                  |                     |           |            |
| Black                      | 1,267               | 3.94      | 9.75       |
| White                      | 1,267               | 7.76      | 12.15      |
| 2019-2020                  |                     |           |            |
| Black                      | 1,283               | 5.21      | 11.37      |
| White                      | 1,283               | 10.44     | 14.67      |
| 2020-2021                  |                     |           |            |
| Black                      | 1,305               | 8.76      | 15.89      |
| White                      | 1,305               | 16.24     | 19.53      |

*Note.* The *n* in the table above denotes the number of high schools included in the study.

The third pairing of student groups was Black and Asian Texas high school graduates. Regarding this comparison, a statistically significant difference in industry-based certification attainment rates was not present for the 2018-2019 school year,  $t(806) = -1.08, p = .28$ . Industry-based certification attainment rates of Black students and Asian students were similar.

In reference to the 2019-2020 school year, a statistically significant difference was not present in industry-based certification attainment rates between Black and Asian students,

$t(794) = 0.79, p = .43$ . Industry-based certification attainment rates of Black students and Asian students were similar. The descriptive statistics for this school year are delineated in Table 3.

Regarding the 2020-2021 school year, a statistically significant difference in industry-based certification attainment rates between Black and Asian Texas high school graduates was present,  $t(823) = 1.94, p = .05$ , Cohen's  $d = 0.07$ , a less than small effect size (Cohen, 1988). Black Texas high school graduates had a statistically significantly higher industry-based certification attainment rate, 1.20% higher, than Asian Texas high school graduates for the 2020-2021 school year. Table 3 contains the descriptive statistics for the three school years analyzed.

**Table 3**

*Descriptive Statistics for the Percentages of Black and Asian Texas High School Graduates who Earned an Industry-Based Certification in the 2018-2019 Through the 2020-2021 School Years*

| School Year and Comparison | <i>n</i> of schools | <i>M%</i> | <i>SD%</i> |
|----------------------------|---------------------|-----------|------------|
| 2018-2019                  |                     |           |            |
| Black                      | 807                 | 4.86      | 8.71       |
| Asian                      | 807                 | 5.29      | 11.41      |
| 2019-2020                  |                     |           |            |
| Black                      | 795                 | 6.49      | 10.89      |
| Asian                      | 795                 | 6.11      | 12.52      |
| 2020-2021                  |                     |           |            |
| Black                      | 824                 | 9.88      | 14.15      |
| Asian                      | 824                 | 8.68      | 15.62      |

*Note.* The *n* in the table above denotes the number of high schools included in the study.

The next comparison was an analysis of industry-based certification attainment rates between Hispanic and White Texas high school graduates. This dependent samples *t*-test failed to yield a statistically significant difference for the 2018-2019 school year,  $t(1667) = 1.83, p = .07$ . Industry-based certification attainment rates of Hispanic and White students were similar.

**Table 4**

*Descriptive Statistics for the Percentages of Hispanic and White Texas High School Graduates who Earned an Industry-Based Certification in the 2018-2019 Through the 2020-2021 School Years*

| School Year and Comparison | <i>n</i> of schools | <i>M%</i> | <i>SD%</i> |
|----------------------------|---------------------|-----------|------------|
| 2018-2019                  |                     |           |            |
| Hispanic                   | 1,668               | 7.87      | 12.87      |
| White                      | 1,668               | 7.38      | 12.77      |
| 2019-2020                  |                     |           |            |
| Hispanic                   | 1,705               | 10.27     | 15.16      |
| White                      | 1,705               | 10.14     | 15.73      |
| 2020-2021                  |                     |           |            |

|          |       |       |       |
|----------|-------|-------|-------|
| Hispanic | 1,718 | 16.07 | 20.28 |
| White    | 1,718 | 15.63 | 20.26 |

*Note.* The *n* in the table above denotes the number of high schools included in the study.

With respect to the 2019-2020 school year, a statistically significant difference was not present in industry-based certification attainment rates between Hispanic and White students,  $t(1704) = 0.37, p = .71$ . Industry-based certification attainment rates of Hispanic students and White students were similar. Descriptive statistics for this comparison are presented in Table 4.

For the final school year analyzed, 2020-2021, a statistically significant difference was not revealed in industry-based certification attainment rates between Hispanic and White Texas high school graduates,  $t(1717) = 0.93, p = .35$ . Industry-based certification attainment rates of Hispanic students and White students were similar. Table 4 contains the descriptive statistics for these three school years.

Regarding the 2018-2019 school year, a statistically significant difference was identified for industry-based certification attainment rates between Hispanic and Asian Texas high school graduates,  $t(886) = 10.36, p < .001$ . The effect size for this analysis was small, Cohen's  $d = 0.35$  (Cohen, 1988). Hispanic students had a statistically significantly higher industry-based certification attainment rate, 4.79% higher, than Asian students.

A statistically significant difference in industry-based certification attainment rates between Hispanic and Asian Texas high school graduates was also present for the 2019-2020 school year,  $t(863) = 11.83, p < .001$ . The effect size for this analysis was small, Cohen's  $d = 0.40$  (Cohen, 1988). Hispanic students had a statistically significantly higher industry-based certification attainment rate, 6.36% higher, than Asian students.

In reference to the third year analyzed, a statistically significant difference was revealed between Hispanic and Asian high school graduates for the 2020-2021 school year,  $t(903) = 12.87, p < .001$ . The effect size for this analysis was small, Cohen's  $d = 0.43$  (Cohen, 1988).

**Table 5**

*Descriptive Statistics for the Percentages of Hispanic and Asian Texas High School Graduates who Earned an Industry-Based Certification in the 2018-2019 Through the 2020-2021 School Years*

| School Year and Comparison | <i>n</i> of schools | <i>M</i> % | <i>SD</i> % |
|----------------------------|---------------------|------------|-------------|
| 2018-2019                  |                     |            |             |
| Hispanic                   | 887                 | 9.56       | 12.94       |
| Asian                      | 887                 | 4.77       | 11.10       |
| 2019-2020                  |                     |            |             |
| Hispanic                   | 864                 | 11.92      | 13.98       |
| Asian                      | 864                 | 5.56       | 12.17       |
| 2020-2021                  |                     |            |             |
| Hispanic                   | 904                 | 16.51      | 16.93       |
| Asian                      | 904                 | 7.83       | 15.16       |

*Note.* The *n* in the table above denotes the number of high schools included in the study.

Hispanic students had a statistically significantly higher industry-based certification attainment rate, 8.68% higher, than Asian students. Descriptive statistics for industry-based certification attainment rates for Hispanic and Asian Texas high school graduates for the three school years are presented in Table 5.

The final pair of student groups analyzed in this study was White and Asian Texas high school graduates. For the 2018-2019 school year, a statistically significant difference in industry-based certification attainment was revealed,  $t(866) = 8.75, p < .001$ . The effect size for this analysis was small, Cohen's  $d = 0.30$  (Cohen, 1988). White students had a statistically significantly higher industry-based certification attainment rate, 3.95% higher, than Asian students.

Regarding the 2019-2020 school year, a statistically significant difference was present in industry-based certification attainment rates between White Texas high school graduates and Asian Texas high school graduates,  $t(849) = 10.46, p < .001$ . The effect size for this analysis was small, Cohen's  $d = 0.36$  (Cohen, 1988). White students had a statistically significantly higher industry-based certification attainment rate, 5.47% higher, than Asian students.

In reference to the final school year analyzed, 2020-2021, a statistically significant difference was present in industry-based certification attainment rates between White and Asian Texas high school graduates,  $t(885) = 11.64, p < .001$ . The effect size for this analysis was small, Cohen's  $d = 0.39$  (Cohen, 1988). White students had a statistically significantly higher industry-based certification attainment rate, 7.54% higher, than Asian students. Descriptive statistics for industry-based certification attainment rates for White and Asian Texas high school graduates for the three school years are presented in Table 6.

**Table 6**

*Descriptive Statistics for the Percentages of White and Asian Texas High School Graduates who Earned an Industry-Based Certification in the 2018-2019 Through the 2020-2021 School Years*

| School Year and Comparison | <i>n</i> of schools | <i>M</i> % | <i>SD</i> % |
|----------------------------|---------------------|------------|-------------|
| 2018-2019                  |                     |            |             |
| White                      | 867                 | 8.86       | 12.98       |
| Asian                      | 867                 | 4.91       | 11.19       |
| 2019-2020                  |                     |            |             |
| White                      | 850                 | 11.08      | 13.95       |
| Asian                      | 850                 | 5.61       | 12.15       |
| 2020-2021                  |                     |            |             |
| White                      | 886                 | 15.54      | 16.82       |
| Asian                      | 886                 | 8.00       | 15.26       |

*Note.* The *n* in the table above denotes the number of high schools included in the study.

## Discussion

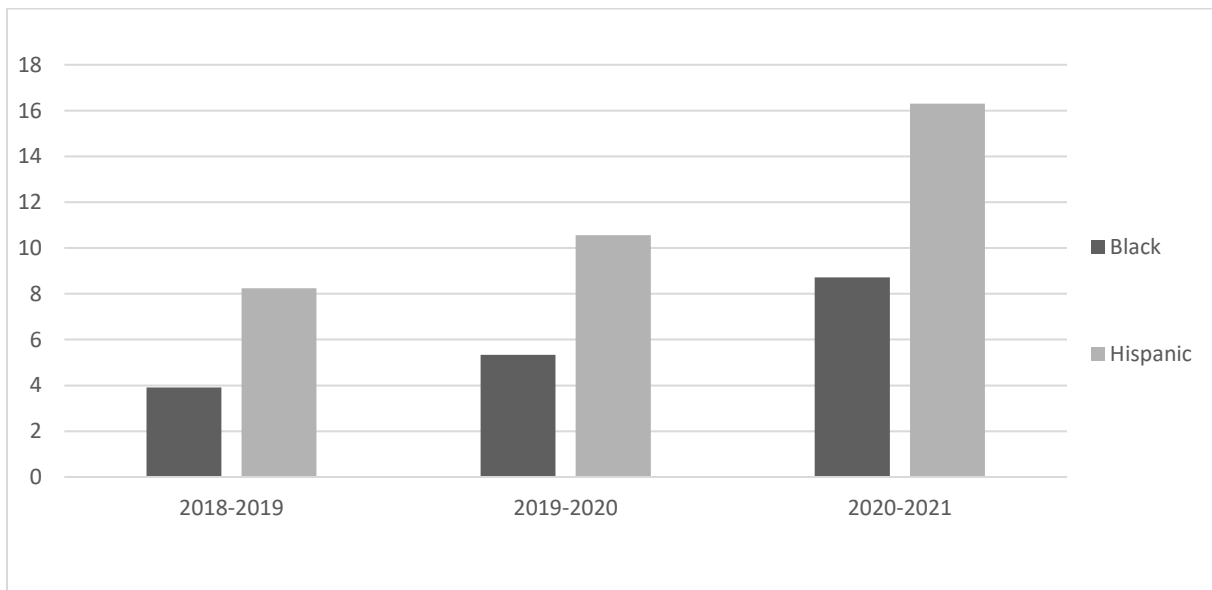
This statewide, multi-year study entailed an analysis of industry-based certification attainment rates by student ethnicity/race for the 2018-2019, 2019-2020, and 2020-2021 school years. The four largest student demographic groups (i.e., Black, Hispanic, White, and Asian) in the State of

Texas served as the independent variable in each school year. Data analyzed in the study were published in the Texas Academic Performance Reports for the 2019-2020, 2020-2021, and 2021-2022 school years. Individuals in each student group were Texas high school graduates who earned an industry-based certification endorsed by the Texas Education Agency from a traditional, comprehensive Texas public high school.

In reference to each of the three school years of data analyzed, Black high school graduates had lower industry-based certification attainment rates than both Hispanic and White graduates. As depicted in Figures 1 and 2, increases in industry-based certifications occurred for all four ethnic/racial groups of students across the three school years. Of note is that, although industry-based certification attainment for Black students more than doubled across the three school years, the same proportional increase in attainment was present for both Hispanic and White students across the same time period. Concerning the attainment rates for Black and Hispanic graduates, industry-based certification attainment rates increased from 3.91% in 2018-2019 for Black students to 8.71% in 2020-2021, whereas industry-based certification attainment rates increased from 8.24% to 16.30% for Hispanic students across the same time period. With respect to Black and White graduates, industry-based certification attainment rates increased from 3.94% for Black students in 2018-2019 to 8.76% in 2020-2021, whereas industry-based certification attainment rates for White students increased from 7.76% to 16.24% across the same school years. As such, attainment rate gaps continued to be present.

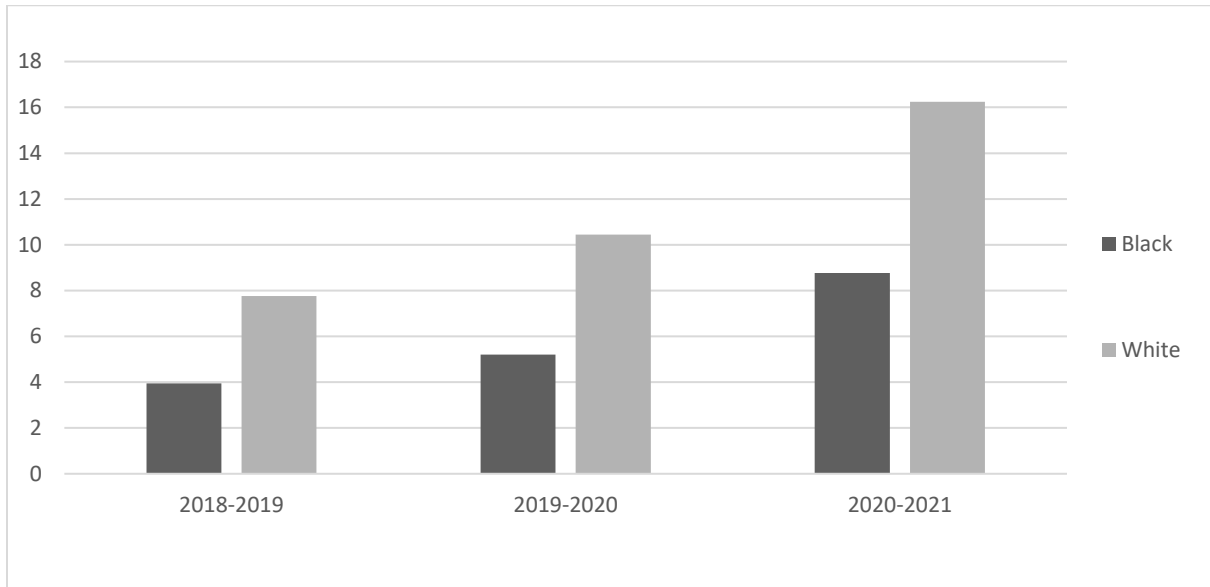
**Figure 1**

*Average Percentages of Black and Hispanic Texas High School Graduates who Earned an Industry-Based Certification in the 2018-2019 Through the 2020-2021 School Years*



**Figure 2**

*Average Percentages of Black and White Texas High School Graduates who Earned an Industry-Based Certification in the 2018-2019 Through the 2020-2021 School Years*

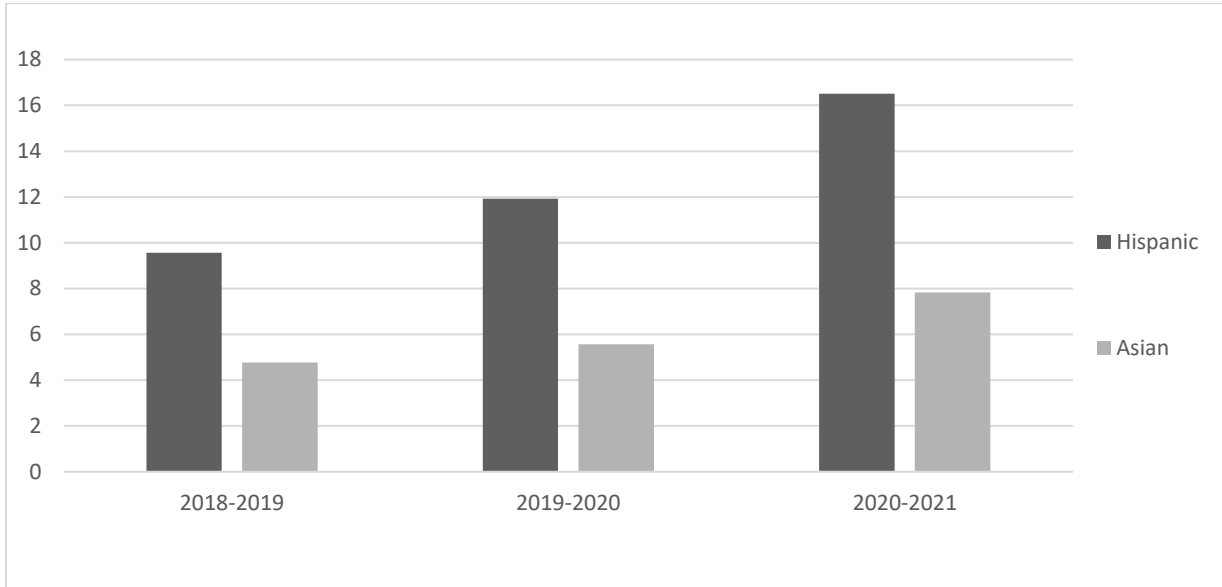


Industry-based certification attainment rates for Black and Asian students were similar across the three school years. In 2018-2019, the industry-based certification attainment rate was 4.86% for Black students and 5.29% for Asian students, whereas in 2020-2021, the attainment rate was 9.88% for Black students and 8.68% for Asian students. The same trend was present for industry-based certification attainment rates between Hispanic and White high school graduates, in that industry-based certification attainment rates were similar for both student groups. For the 2018-2019 school year, the industry-based certification attainment rate was 7.87% for Hispanic students and 7.38% for White students; in 2020-2021, the industry-based certification attainment rate for Hispanic students was 16.07%, and the attainment rate for White students was 15.63%.

Industry-based certification attainment rates were different between Hispanic and Asian students, as well as between White and Asian students. As illustrated in Figure 3, the Hispanic student group had a 6.95% increase in industry-based certification attainment rates across the three school years, whereas Asian students had a 3.06% increase across the same time period. In regard to the industry-based certification attainment rates of White and Asian students, these rates are depicted in Figure 4. In the three school years of data analyzed, a 6.68% increase from 2018-2019 through the 2020-2021 school year was present for White students, whereas Asian students had only a 3.09% increase across the same time period. Similar to the trend for Black students, industry-based certification attainment rates for Asian students increased across the three school years. However, increases in industry-based certification attainment rates for Asian students did not reduce the attainment gaps present when compared to both Hispanic and White students.

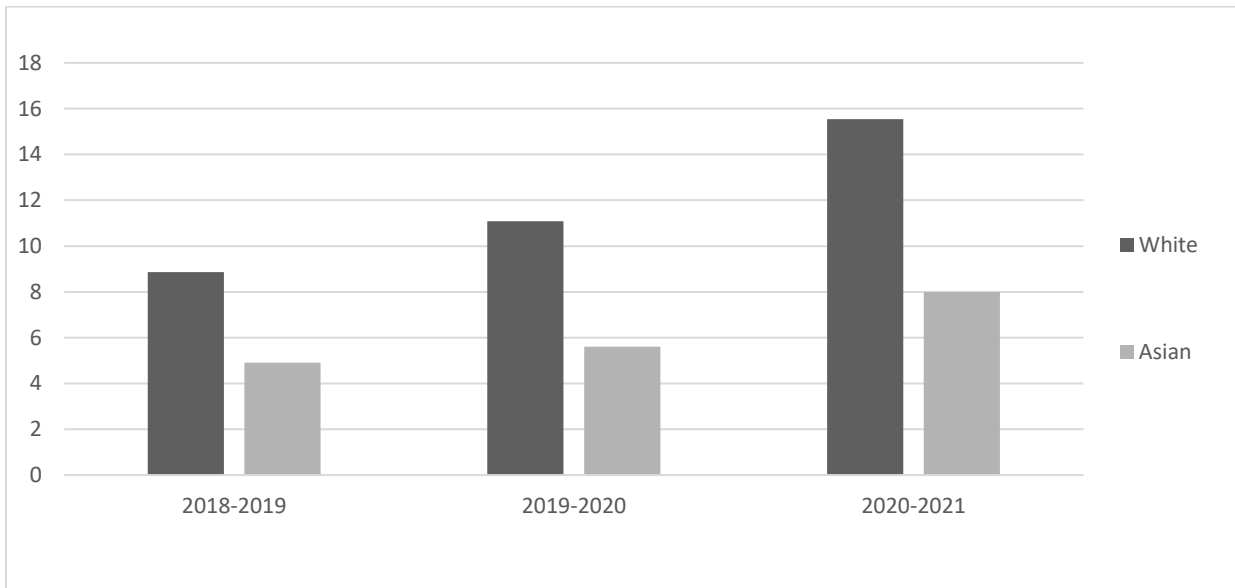
**Figure 3**

*Average Percentages of Hispanic and Asian Texas High School Graduates who Earned an Industry-Based Certification in the 2018-2019 Through the 2020-2021 School Years*



**Figure 4**

*Average Percentages of White and Asian Texas High School Graduates who Earned an Industry-Based Certification in the 2018-2019 Through the 2020-2021 School Years*



## **Connections with Existing Literature**

Findings from this multiyear, statewide investigation were congruent with previous researchers (Barnes & Slate, 2014; Chandler et al., 2014; Moore et al., 2010) who documented that Black students had lower postsecondary readiness rates when compared to other student groups. Also present in the current study were increases in industry-based certification attainment rates by Black students. Readers should note, however, that any gains that would result in gap closure when compared to Hispanic and White students were offset by proportional gains by the same student groups – a dynamic documented by Barnes and Slate (2014). Congruent with Byars-Winston (2013) regarding STEM program enrollment to satisfy growing demands in the workforce, the number of Black students attaining industry-based certifications was low when compared to other student groups. Finally, White students had higher industry-based certification attainment rates across the three years of data analyzed when compared to most student groups. This observation aligns with the findings of Barnes and Slate (2014), Davis et al. (2013), and Moore et al. (2010) regarding the comparison of college readiness rates among ethnic/racial groups.

## **Implications for Policy and for Practice**

Several implications for policy have emerged from this statewide, multiyear study. Primarily, campus administrators, counselors, and district program directors must monitor course enrollment demographics to ensure high school students are enrolling in coursework that yields college and career readiness indicators for individual students. Leaders must also ensure enrollment statistics reflect proportional participation by students of each ethnic/racial student group. To foster this endeavor, a mechanism to achieve program participation can come from offering learning opportunities that provide information that allows students to formulate the connection between skills learned in the K-12 setting to the employability skills demanded by industry. It is also vital that educators provide the necessary instructional support to ensure students are adequately prepared for required assessments associated with earning industry-based certifications. Finally, it is critical for state representatives to create legislation that provides for the further development of K-12 and industry relationships.

In terms of practice, campus and district leaders must provide forums for educators to engage in professional learning that provides instructional staff with a deep understanding of the professional skills demanded by employers. Second, a critical component of skill attainment while in high school is ensuring the proper courses are in place that allow for the offering of industry-based certifications. Therefore, campus and district leaders must analyze career clusters and programs of study outlined by the Texas Education Agency to ensure courses that are required to be offered in sequence are scheduled accordingly in the campus master schedule of courses. Finally, in the instance where cost is associated with an industry-based certification assessment, it is critical that the cost passed on to students be minimized or eliminated altogether.



## **Thoughts from an Educational Leader Perspective**

Enrollment in 4-year institutions is declining almost everywhere in the United States. As a 2017 high school graduate of a large suburban high socio-economic community and a 2022 graduate of a 4-year institution stated, during COVID many of my friends who were in college figured out they didn't need a 4-year degree to earn a good living. These individuals dropped out of their universities and attended trade schools that provided industry-based certification(s) at a faster rate than the 4-year institutions they were attending.

As a Principal Certification Program, our role is to expose future school leaders to the many industry-based certifications available as well as Texas school districts that have implemented successful industry-based certification programs. Assignments at the program level should focus on determining how successful programs started and steps taken to encourage participation from students of all ethnic/racial groups so upon graduation program completers can enter the work force and begin earning a living.

## **Recommendations for Future Research**

Several future research opportunities have been generated from the current statewide, multiyear study. Researchers have identified that Asian students have higher college readiness rates than Black and Hispanic students (Davis et al., 2013); further, O'Lawrence (2017) presented evidence that Asians had lower unemployment rates than Black, Hispanic, or White individuals. Findings such as these appear to contradict the results of this study. However, this dynamic could be rationalized if Asian students earned College, Career, and Military Readiness indicators through other metrics made available by the Texas Education Agency. Therefore, future research could expand the analyses of indicators beyond industry-based certification attainment to identify how Asian students are earning College, Career, and Military Readiness status. Similarly, Hispanic students have been identified to maintain lower postsecondary readiness rates than their White counterparts (Barnes & Slate, 2014; Chandler et al., 2014; Moore et al., 2010); however, industry-based certification attainment rates for Hispanic students were among the highest of all student groups. Therefore, extending the analysis of College, Career, and Military Readiness to include all metrics made available by the Texas Education Agency would provide insight reflecting the areas where Hispanic students earn associated readiness designations. Finally, because the current study was limited to analyses of data provided in the Texas Academic Performance Reports for the 2019-2020, 2020-2021, and 2021-2022 school years, future research could be expanded to include additional school years.

## **Conclusion**

The purpose of this statewide, multiyear study was to analyze industry-based certification attainment rates among Black, Hispanic, White, and Asian Texas high school graduates. Differences in attainment rates between the student groups were analyzed and statistically significant differences in attainment were present for Black graduates when compared to both Hispanic and White graduates. Similarly, statistically significant differences were present for Asian students when compared to both Hispanic and White students. Also present for the three

school years of data analyzed were that Hispanic and White graduates maintained higher industry-based certification attainment rates than both Black and Asian students. Finally, although both Black and Asian Texas high school graduates demonstrated increases in industry-based certification attainment across the three school years studied, so did Hispanic and White graduates, thus eliminating the closure of industry-based certification attainment gaps between the same student groups.

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# English Learner Program Director and Teacher Self-Efficacy in Serving English Learners with Dual Eligibility

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## **Abstract**

*The number of English learners (ELs) in school districts is climbing nationwide, and these students are being taught by teachers who may or may not have the knowledge base or training to provide effective instruction (Johnston & Young, 2019). This exploratory, descriptive study examined the self-efficacy of EL program directors and EL teachers in meeting the diverse needs of students who receive both special education (SPED) and EL services. Participants in the study included EL program directors and EL teachers from six central Texas school districts. Vanatta and Fordham's (2004) Teacher Attribute Survey was utilized to provide insight into EL program director and teacher confidence in serving students with dual eligibility. Eight themes emerged from narrative survey responses, four from EL directors and four from EL teachers. These themes included the need for targeted professional development, increased interdepartmental collaboration, and the importance of hiring and retaining highly qualified teachers and staff.*

*Keywords:* educational leadership; English learners; dually identified; self-efficacy; special education; program evaluation

## Introduction

In the United States, the number of students with disabilities who are also acquiring English as an additional language has grown by 30% since 2012 (USDE, 2021). Texas saw a 37.24% change from 2012 to 2020 (USDE, 2021). The US Department of Education (2021) reported that these dually served students have a higher dropout rate compared to all students served under IDEA B and only 71.16% graduate with a regular high school diploma.

When it comes to the disability category, ELs were more likely to be identified with a specific learning disability (SLD) when compared to all school-aged students served under IDEA, Part B (USDE, 2021). In the 2020-2021 IDEA, Part B child count, 44.69% of ELs were diagnosed with a specific learning disorder compared to 34.56% for all students being served by IDEA B. One contributing factor to this disproportionality is that the traits of specific learning disabilities (SLD) can present similarly to the natural stages of second language acquisition (SLA). This resemblance creates difficulties in accurately identifying an EL with an SLD (Klinger & Geisler, 2016). To ensure equal educational opportunities, it is especially important to distinguish between predictable stages of second language acquisition and SLD to avoid overrepresentation of ELs in special education in our public schools (Klingner and Eppolito, 2014, as cited in Rey, et al., 2022).

Program director and teacher self-efficacy play a crucial role in addressing the needs of this diverse population. To serve the needs of ELs, program directors and teachers must demonstrate confidence and competence in their approach to educating these students. Bandura (1977) relates this confidence and competence to teacher self-efficacy when he describes self-efficacy as a judgment of the teacher's ability to bring about desired outcomes of student engagement and achievement, even among students who face unique challenges. Teacher and program leader self-efficacy is crucial in effectively serving students with English learner and special education eligibility. Lauermaun and Butler (2021) noted that teachers with higher levels of self-efficacy are more likely to persist in the face of difficulties or to employ a broader range of teaching techniques, which may be better suited to the specific and varied challenges they face in the classroom. Likewise, administrator self-efficacy is an essential component for school management (Fisher, 2014). Numerous studies have consistently highlighted the importance of educator self-efficacy for both teacher performance and student learning outcomes (Burić & Kim, 2020; Shahzad & Naureen, 2017). When teachers and program directors have a strong sense of self-efficacy, they believe in their ability to positively impact student learning outcomes for dually identified English learners, despite the challenges this diverse student population may face. This belief empowers educators to approach their roles with confidence and a proactive attitude, leading to more effective teaching strategies and support systems tailored to meet the unique needs of dually identified ELs.

## Theoretical Framework

The researchers in this study measured the self-efficacy of EL teachers' and EL directors' knowledge of the special education program and the strategies utilized to teach EL students receiving SPED services. The theoretical framework used for this research study was based on Bandura's (1977) Self-Efficacy Theory. Researchers have interpreted self-efficacy as the belief



and confidence in one's ability to control the environment in which they are functioning (as cited Lopez-Garrido, 2023). According to Bandura (1977), self-efficacy is influenced by "four sources of information: 1) performance accomplishments, 2) vicarious experiences, 3) verbal persuasion, and 4) physiological states" (p. 191; as cited in Reyes, et al., 2022). It is important to evaluate the self-efficacy of EL teachers who are working with ELs with disabilities to ensure that they are receiving the necessary training and resources to better meet the needs of the students. DePiper et al. (2021) evaluated teachers' confidence levels in teaching ELs in mathematics and concluded that "supporting implementation of language strategies was a key professional development component that contributed to teacher self-efficacy outcomes" (p. 489). Therefore, research shows that providing teachers with the necessary support and training will ensure knowledge for administrators and teachers alike, which leads to student success.

In this study, the researchers evaluated the EL directors' and the EL teachers' knowledge of their special education program as well as the level of self-efficacy in their ability to use evidence-based strategies to teach dually identified ELs in their classrooms. In a previous study, Reyes et al. (2022) evaluated the self-efficacy of SPED directors and SPED teachers to determine their level of confidence in working with this population, which gave the researchers a unique perspective on the self-efficacy of both EL educators and SPED educators.

### **Purpose of the Study**

The purpose of this exploratory, descriptive study was to determine the perceptions of EL program directors and EL teachers regarding confidence and self-efficacy in meeting the diverse needs of dually identified ELs. To evaluate the level of confidence and self-efficacy of EL program directors and their respective EL teachers in meeting the needs of EL students who have been diagnosed with a disability, the following research questions guided the study.

1. How confident are EL directors concerning their EL teachers' knowledge and skills in teaching ELs who have been diagnosed with a disability?
2. What is the self-efficacy of EL teachers in working with ELs receiving special education services?
3. What is the self-efficacy of EL program directors in preparing and/or assisting EL teachers in working with ELs receiving special education services?
4. What are some of the perspectives from EL educators and their respective directors concerning special education services for ELs?

### **Literature Review**

In this research paper, we acknowledge the rich and diverse terminology used to describe students in the process of acquiring English as an additional language. While numerous labels exist, including *English learner (EL)*, *English language learners (ELLs)*, *limited English proficient (LEP) students*, *multilingual learners (ML or MLL)*, *emergent bilinguals (EB)*, *twice exceptional*,

and *culturally and linguistically diverse (CLD)* students, we have chosen to use the term "English learners" or simply "ELs." This decision stems from our desire to ensure clarity and consistency in our discussion. Furthermore, within the context of this research, we use the term "dually identified EL" to designate an English learner who concurrently receives special education services. By clarifying our terminology, we aim to create a common discourse for this study.

### **Dually Identified English Learners**

The education system has made significant strides in recognizing and protecting the rights of students with disabilities, thanks to laws like the Individuals with Disabilities Education Act (IDEA) and Section 504 of the Rehabilitation Act of 1973. As more English learners enter U.S. schools, there has been a corresponding increase in the number of ELs identified for special education (Kargar, 2013; Watkins & Lui, 2013). The special education pre-referral and evaluation processes become more complex when working with students who are also in the process of acquiring English as an additional language. As students acquire language, they make errors that mirror many of the characteristics of a learning disability. Research conducted by García and Tyler (2010) highlights the challenges faced by educators in accurately determining whether ELs are going through a typical stage of language acquisition, dealing with a disability, or facing difficulties related to both.

### **Intersection of Second Language Acquisition and Learning Disabilities**

English learners receiving special education services are most frequently identified as having a specific learning disability (SLD), one of the 13 disability categories defined by IDEA (2004). SLD is defined in IDEA as "a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which disorder may manifest itself in the imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculations" [IDEA §1401(30)(A)]. While the referral and assessment of a non-EL can be challenging, it becomes a much more daunting task when the student is in the process of acquiring English. There are many behaviors associated with acquiring an additional language that resemble those of an SLD, and, as a result, many educators express a lack of confidence in their ability to distinguish whether an EL is struggling due to language barriers or a potential disability (Artiles & Klingner, 2006).

### ***Professional Development***

The complexity of distinguishing between second language acquisition and learning disabilities is evident in the disproportionate number of ELs receiving special education services. Disproportionality in education refers to the overrepresentation or underrepresentation of a specific population of students in comparison to all students, and research reveals a disparity in the representation of ELs identified as having a disability. Specifically, ELs are underrepresented as having disabilities in the early grades, while they are overrepresented in the upper elementary grades (Artiles et al., 2005; Hibel & Jasper, 2012; Samson & Lesaux, 2009; Umansky et al., 2017). Park (2020) identified two primary themes in teachers' attitudes towards referring

an English Learner (EL) for special education evaluation— a cautious "wait to be sure" and a proactive "the sooner the better" (p. 14). However, there are significant consequences for students if educators err in one direction or the other. Spinelli (2008) found several problems resulting from incorrect placement of ELs in special education including placement in more restrictive learning environments and limited access to core curriculum which may ultimately impact their education and career opportunities after high school. ELs for whom educators took the "wait and see" approach may delay access to supports necessary for an EL with an undiagnosed disability impacting their ability to learn academic concepts and acquire language putting them even further behind. Recent research conducted by Becker and Deris (2019) highlighted educators' need for further training. The study highlighted the need to better equip educators in identifying and effectively supporting ELs who may have dual challenges - language acquisition and learning disabilities.

### ***Collaboration***

Dually identified ELs encounter unique challenges in school. They are often served by a team of teachers, including general education, bilingual/ESL, and special education teachers. While this would seem of benefit for the students, these teachers often do not work across specialties but operate in silos. Researchers have found a lack of collaboration among educators when it comes to referring, assessing, and serving dually identified ELs (García & Tyler, 2010; Kangas, 2018; Reyes, et al., 2022; Téllez & Mosqueda, 2015; Zehler et al., 2003) This lack of collaboration between the experts leads to fragmented learning experiences for students. Teachers may collaborate during the referral process; however, once an EL has been identified as needing special education services, the role of the teacher supervising their second language acquisition is often reduced to a signature on the ARD documents. Little to no collaboration takes place going forward once the student is, or is not, identified with a disability.

Collaboration across specialties is crucial not only for supporting dually identified ELs but also for gathering the necessary data points to determine a special education referral. Researchers recommend considering multiple sources of information to help differentiate between second language acquisition and learning disabilities. As outlined by Case & Taylor in their 2005 study, "Although teachers may consult some of the many standardized tests designed to measure the presence of learning disabilities, a single measure to separate learning disability from language difference does not exist" (p. 127). It is essential that multiple data points are collected and analyzed by a team of individuals who have the necessary expertise. A range of data points ensures that students are neither inappropriately referred to nor overlooked for special education services.

### ***Qualified Teachers***

The potential negative impact on student outcomes makes it imperative that these students receive instruction from highly qualified teachers certified in both special education and ESL. Green et al. (2021) described highly qualified as having a degree, passing the state certification exam and obtaining licensure. This licensure includes those entering the profession on emergency permits and having limited experience in schools (Darling-Hammond & Baratz-

Snowden, 2007). Unfortunately, a significant number of teachers are not teaching in areas where they hold certification (Nguyen et al., 2022).

## Methods

### Participants

Purposive sampling was utilized since researchers were interested in perceptions from a specific group of people. The researchers wanted to survey the perceptions of EL program directors and EL teachers from six school districts employed with north-central Texas suburban schools. Informed consent was obtained for all participants.

The three ESL program leaders had diverse educational backgrounds and teacher certification paths as shown in Figure 1.

1. The first ESL Program Leader received their undergraduate degree from UT at Arlington and their teacher certification through an alternative certification program. They also hold an ESL supplemental certification.
2. The second ESL Program Leader received their undergraduate degree from Texas A&M Commerce and their teacher certification through a traditional 4-year university-based teacher preparation program. However, they do not hold an ESL supplemental certification.
3. The third ESL Program Leader received their undergraduate degree from St. Edward's University and their teacher certification through an alternative certification program. Similar to the first ESL Program Leader, they hold an ESL supplemental certification.
- 4.

Overall, the three ESL Program Leaders have different backgrounds and paths to teacher certification, but they all have the necessary qualifications to work as ESL Program Leaders, including an undergraduate degree and appropriate teacher certification.

**Figure 1**

*Education and Certification of EL Directors*

| EL Program Leader | Undergraduate Institution | Teacher Certification | ESL Supplemental Certification |
|-------------------|---------------------------|-----------------------|--------------------------------|
| 1                 | UT at Arlington           | Alternative Program   | Yes                            |
| 2                 | Texas A&M Commerce        | 4-Year Program        | No                             |
| 3                 | St. Edward's University   | Alternative Program   | Yes                            |

In District A, the total student population stands at 3,595 students. Among them, 22.9% are English learners, based on data from the Texas Education Agency (TEA) in 2022. Furthermore, 9.8% of all students in the district receive special education services. The special education determination status for 2022 indicates that the district has met the requirements in this area.

District B has a total student population of 7,036. Among these students, 22.9% are classified as English learners and 9.8% of all students are receiving special education services (TEA 2022). The special education determination status for the district in 2022 was "Needs Assistance."

District C houses a total student population of 5,999, with 16.2% of all students being English learners. Additionally, 11.8% of the student body is receiving special education services, as reported by the Texas Education Agency (TEA) in 2022. The special education determination status for the district in 2022 was "Needs Assistance."

District D has a total student population of 5,320 with English learners comprising 24.5% of all students. Additionally, 13.9% of all students are receiving special education services (TEA 2022). The special education determination status for the district in 2022 was classified as "Needs Intervention."

In District E, the total student population is 6,287. Among these students, 13.5% are English learners and 12.7% of all students are receiving special education services (TEA 2022). The special education determination status for the district in 2022 was "Needs Intervention."

District F has a total student population of 5,320 with English learners comprising 24.5% of all students. Additionally, 13.9% of all students are receiving special education services (TEA 2022). The special education determination status for 2022 shows that the district has met the requirements in this area.

## **Instrumentation**

This exploratory, qualitative study used text-based responses and descriptive statistics. The survey instrument utilized for EL program directors and teachers was a modified survey inspired by Vanatta and Fordham's (2004) Teacher Attribute Survey. The data ratings completed by EL teachers provided insight into the services and organization of EL and special education services within six school districts. The survey designed for EL program directors sought to obtain school enrollment data and other demographic data pertaining to ELs who receive special education services.

## **Data Analysis**

Basic descriptive statistical analysis of the EL teachers' responses to the TAS rating items was conducted and reported. Using a sliding interval scale, EL teachers responded to the TAS survey by selecting a placement number between the range of 1 strongly disagree to 6 strongly agree. From the numeric interval responses, according to EL teachers' mean ratings, researchers could determine perceptions EL teachers hold concerning the educational experiences of ELs who receive special education services. From TAS EL teachers' ratings data, means and descriptive comparisons were performed and reported.

Following the data analysis process established in a related study reviewing special education teachers' and directors' perspectives (Braun & Clarke, 2021; Braun & Clarke, 2006; Reyes, et al., 2022), researchers determined the perceptions and perspectives of EL teachers and their respective EL directors from six school districts. Researchers utilized thematic analysis

(Braun & Clarke, 2021; Creswell & Guetterman, 2019; Creswell & Poth, 2016) procedures to review and code the narrative responses from 25 EL teachers and three EL directors.

Researchers identified concepts, categories, and themes from the EL directors' and EL teachers' text-based survey responses (Braun & Clarke, 2021; Creswell, 2016; Creswell & Poth, 2016; Reyes, et al., 2022). Several peer-debriefing sessions allowed researchers to collapse categories and form themes from the narrative responses (Braun & Clarke, 2021; Braun & Clarke, 2006; Spall, 1998). Once researchers completed solo thematic analysis procedures, various categories collapsed as researchers compared findings. These comparisons evolved into themes from the thematic analysis process. Themes without unanimous support from fellow researchers were omitted. Quotes representing identified themes were reported.

## Results

### EL Teachers' Numerical Rating Self-Efficacy Responses

EL teachers responded to the TAS survey items using an interval scale by selecting between a range of 1, strongly disagree, to 6, strongly agree. Mean ratings of EL teachers provided insight into their classroom experiences and work with ELs. Based on the responses, the EL teachers perceived a positive impact on their students' academic performance, regardless of a student's home environment or family background as shown in Table 1. These ratings represent high self-efficacy among these teachers concerning their pedagogical approaches.

**Table 1**

*EL Teachers' Perceptions Concerning the EL Students Receiving Special Education Service (n = 25).*

| Survey Items   | <i>M</i> | <i>SD</i> |
|--|----------|-----------|
| <b>Beliefs in the ability to affect student performance</b>                                  | 4.94     | 1.23      |
| <b>If parents would do more with their children, I could do more.</b>                        | 4.36     | 1.77      |
| <b>If students are not disciplined at home, they aren't likely to accept any discipline.</b> | 3.50     | 1.81      |
| <b>The amount that a student can learn is primarily related to family background.</b>        | 1.46     | 1.65      |

|  |      |      |
|--|------|------|
| A teacher is very limited in what he/she can achieve because a student's home environment is a large influence on his/her achievement. | 2.11 | 1.64 |
| The hours in my class have little influence on students compared to the influence of their home environment.                           | 1.93 | 1.41 |
| I am confident in meeting Special Education English Learner instructional needs.   | 4.46 | 1.77 |

**Note.** *M = Mean, SD = standard deviation, EL=English Learner, and n = count of EL teachers responding to the survey.*

It is interesting to note a dichotomy of self-efficacy between teachers with 10 years or less experience (n=9, M=2.88) versus teachers with 11 or more years of experience (n=16, M=3.42). Teachers with 11 or more years of experience perceived higher self-efficacy in their work with dually identified ELs.

### ***Narrative Responses of Self-Efficacy for Serving Dually Identified English Learners***

This study provided the same questions used in Reyes, et al.'s (2022) study, which focused on special educators' and special education directors' perceptions regarding ELs who have special learning needs. The survey asked EL teachers and EL directors the same self-efficacy open-ended questions concerning educational services to ELs who also received SPED services.

- EL Teachers: How confident do you feel in implementing instructional practices or techniques for teaching English Learners (ELs) in special education? Please explain.
- EL Directors: How confident do you feel in preparing teachers to address the needs of students who are identified as English Learners (ELs) in special education? Please explain.

Researchers identified two sets of themes emerged from the responses. One set represented the EL teachers' perceptions, and the second represented the EL directors' perceptions.

### ***EL Teachers' Narrative Responses of Self-Efficacy for Serving Dually Identified English Learners***

The four themes discovered through thematic analysis of EL teachers' narrative responses were a. EL Teachers' Theme 1 (ELT-T1) self-efficacy in teaching ELs, b. EL Teachers' Theme 2 (ELT-T2) training and support needs, c. EL Teachers' Theme 3 (ELT-T3)-overlapping techniques and

challenges, and d. EL Teachers' Theme 4 (ELT-T4)-cultural understanding and communication. It is noteworthy to highlight two statements from Teacher 24, who said, "After 25 years of teaching bilingual learners, I have become fairly capable of working with ELs with mild learning disabilities (for example, mild cognitive delay, speech students, mild AU [*sic*]; Unfortunately, when children with severe learning and or behavior disabilities are in a mainstream classroom, everything becomes a struggle -- regardless of the language." These two statements align with both ELT-T2 and ELT-T3. Comprising 52 words (6.5%) of the total 805 words contributed by EL teachers, these quotes were used by researchers to substantiate both themes without necessitating their amalgamation into a singular, redefined theme. Only 48 words, which formed phrases by EL teachers' narrative responses, were not associated with any of the four themes. Therefore, 52 out of 757 words were subtracted from the total number of words supporting the four themes. The themes were supported by approximately 87.5% (705 out of 805) of the words used by EL teachers in their narrative responses as shown in Table 2.

**Table 2**  
*Themes from EL Teachers' Narrative Responses*

| EL Teachers' Themes                                      | Total Number of Words | Percentage of Total Words |
|--|-----------------------|---------------------------|
| <b>Theme 1: Confidence in Teaching ELs</b>               | 198                   | 24.5%                     |
| <b>Theme 2: Training and Support Needs</b>               | 158                   | 19.6%                     |
| <b>Theme 3: Overlapping Techniques and Challenges</b>    | 205                   | 25.5%                     |
| <b>Theme 4: Cultural Understanding and Communication</b> | 196                   | 24.3%                     |
| <b>Themes 2 &amp; 3: Shared Supporting Words</b>         | 52                    | 6.5%                      |

**Note.** EL=English learner

The total number of words supporting all four themes is 757 words out of 805 words. (52+48)-805 equals 705 words that supported the themes when factoring the 52 shared words between themes 2 & 3 contributed by EL teachers and the 48 words that did not support the four themes.

EL teachers' responses to the four themes are tangible evidence of the high self-efficacy they have for instructing and caring for dually identified English learners. The statements from the EL teachers supported the findings from their rating responses on the TAS survey. Although high self-efficacy is supported by the numerical response data on the TAS, concerns and challenges are reflected in the EL teachers' narrative responses.

**ELT-T1: Self-Efficacy in Teaching ELs.** ELT-T1, *self-efficacy in teaching ELs*, was supported by 24.5% (n=198 out of 805) of the words expressed by EL educators regarding their self-efficacy in teaching ELs based on their experiences, knowledge, and background. The EL teachers mentioned their comfort in implementing instructional practices and techniques, often due to years of experience, professional development, or personal experience as an EL. Several of the EL teachers' statements are representative and support ELT-T1.



1. "Very, many trainings and work with ELs daily." (TEACHER 1)
2. "I am comfortable using the instructional practices and techniques I have learned while working with each group. However, when a student is twice exceptional I have found it much more difficult to find strategies that work." (TEACHER 2)
3. "I feel fairly confident." (TEACHER 3)  
"I have had many years experience teaching in a resource English class with EL learners."
4. "I feel experienced and very confident when teaching Students that are identified as special education and English Learners." (TEACHER 4)
5. "Confident. But there is not always time to do everything the students could use to help them." (TEACHER 5)
6. "Extremely confident. I currently write the plaafps [sic] and goals for all gen ed sped students at Smith Middle School." (TEACHER 6)
7. "I feel very comfortable because I have worked with EL students for many years." (TEACHER 7)
8. "I feel confident in implementing instructional practices and techniques to teach English Learners (ELs) in special education." (TEACHER 8)
9. "I am very confident in my skills." (TEACHER 12)
10. "Confident, I have had several students with both needs in my room." (TEACHER 10)
11. "I feel very confident implementing instructional practices for teaching ELLs in Special Education because I have an M.Ed. in TESOL." (TEACHER 11)
12. "Very confident. I've been an EL all my life..." (TEACHER 15)

**ELT-T2: Training and Support Needs.** ELT-T2, *training and support needs*, comprised 19.6% (n=158 out of 805) of the words from EL teachers' narrative responses. Some teachers mentioned the need for additional training or support to feel more confident in teaching ELs in special education settings. Some acknowledged the importance of staying updated on current practices, the value of yearly training, and the need for resources to address their students' specific challenges effectively. The statements below represent ELT-T2.

1. "I feel that there is more training needed for me to confidently implement practices/techniques for teaching ELs in special education. I have not had any training considering ELs in special education." (TEACHER 9)
2. "I would feel more confident if I received some form of training in implementing instructional practices or techniques for teaching English Learners (ELs) in special education." (TEACHER 22)
3. "Over the years I feel that I have grown and learned how to implement instructional practices with EL's. It takes time and I am still learning new practices as they come." (TEACHER 23)
4. "After 25 years of teaching bilingual learners, I have become fairly capable of working with ELs with mild learning disabilities (for example, mild cognitive delay, speech students, mild AU [sic])." (TEACHER 24)
5. "Unfortunately, when children with severe learning and or behavior disabilities are in a mainstream classroom, everything becomes a struggle- regardless of the language." (TEACHER 24)

6. "One severe student in a classroom with 21 other students and one teacher is not benefitting anyone." (TEACHER 24)

**ELT-T3: Overlapping Techniques and Challenges.** ELT-T3, *overlapping techniques and challenges*, represented 25.5% (n=205 out of 805) of the words communicated by EL teachers. The EL teachers recognized that there are overlapping techniques between special education and EL strategies, which can be beneficial for addressing the needs of both groups. However, they also noted challenges distinguishing the reasons for the student's struggle or needs, whether due to their language or disability, and the difficulty of identifying and addressing the unique needs of students with severe learning or behavioral disabilities. A representation of EL teachers' statements supporting ELT-T3 are listed below.

1. "I feel [sic] that I typically do a good job at implementing instructional practices for teaching ELs due to the overlap in techniques between special education and EL strategies. With yearly training, I am able to stay on top of current practices. I do find it more difficult with my more severe students with disabilities to determine if their struggles are based on their language or disability." (TEACHER 13)
2. "I feel confident in teaching EL Learners as many techniques for LD overlaps for EB." (TEACHER 17)
3. "After 25 years of teaching bilingual learners, I have become fairly capable of working with ELs with mild learning disabilities (for example, mild cognitive delay, speech students, mild AU [sic].) Unfortunately, when children with severe learning and or behavior disabilities are in a mainstream classroom, everything becomes a struggle- regardless of the language..." (TEACHER 24)
4. "However, when a student is twice exceptional, I have found it much more difficult to find strategies that work." (TEACHER 2)
5. "I feel fairly confident in implementing instructional practices for teaching EL (EB) students who are also receiving special education services. As the Emergent Bilingual lead liaison on my campus, I have been thoroughly trained in best practices, and as my minor was in Special Education, I feel uniquely capable in helping these students." (TEACHER 14)

**ELT-T4: Cultural Understanding and Communication.** ELT-T4, *cultural understanding and communication*, retained 24.3% (n=196 out of 805) of the narratives produced by the EL teachers. ELT-T4 highlights the importance of understanding the cultural nuances of students and their families and effective communication strategies. The EL teachers recognize the value of learning about students' cultural backgrounds and using students' home languages to create an inclusive learning environment. EL teachers 7, 3, and 15 directly expressed narrative responses that serve as a representation of ELT-T4.

1. "...I believe it takes time and experience with many different kids to learn to effectively combine theory with practice. It takes time to become familiar with the nuances of cultures that are different from your own so you can understand and meet the needs of the students and their families. Many families had very different school experiences and do not know what to expect from an American school." (TEACHER 7)

2. "...I am not bilingual, but I do learn words in the necessary language that are very important for my EL's and I try to incorporate those words in my lessons in conjunction with my English explanations. I allow my EL students to communicate with me in a way they feel comfortable while slowly easing them into the English language. I also try to communicate with them in their language so that they may see what a struggle it is for me and feel more confident in their attempts." (TEACHER 3)
3. "...Knowing what it is like to be an EL is easier to identify the struggles. I've been a bilingual teacher for 8 years now and I've been part of various trainings that I've implemented in the classroom and I've seen growth." (TEACHER 15)

***EL Directors' Narrative Responses of Self-Efficacy for Serving English Learners with Special Needs***

EL directors provided narrative responses to the survey regarding their self-efficacy in preparing teachers to address the needs of students identified as English learners in special education. Table 3 provides a breakdown of the total number of words per director.

**Table 3**  
***Total Words from EL Directors' Narrative Responses***

| <b>EL Director</b> | <b>Word Count</b> | <b>Percentage of Total Words</b> |
|--------------------|-------------------|----------------------------------|
| <b>Director 1</b>  | 35                | 13%                              |
| <b>Director 2</b>  | 117               | 43.5%                            |
| <b>Director 3</b>  | 117               | 43.5%                            |

**Note.** *EL=English Learner.*

The three EL directors produced 269 words in their narrative responses. Director one and two provided most of the words analyzed, ironically, with an equal percentage of words at 43.5% (n=117). Director One provided 13% of the words reviewed. Like the EL teachers in this study, the EL directors' narrative responses provided four themes from thematic analysis comparisons. The four themes derived from EL directors were a.) Theme 1 (ELD-T1), limited expertise in special education; b.) Theme 2 (ELD-T2), lack of collaboration between EL and special education staff; c.) Theme 3 (ELD-T3), certification and staffing challenges; and Theme 4 (ELD-T4), language proficiency versus other support needs. These themes collectively provide insights into the multifaceted challenges and considerations EL directors consider when preparing their EL teachers for serving dually identified English learners and highlight areas for growth, collaboration, and targeted support.

**ELD-T1: Limited Expertise in Special Education.** This theme highlights the challenges faced by EL directors who did not acquire specialized training in special education. All three EL directors shared statements supporting this theme, and these quotes reveal a common sentiment of surface-level confidence tied to an explicit acknowledgment of the need for improvement, especially in supporting dually identified English learners. The directors admitted their limitations, recognizing that their lack of certification or inexperience in special education restricts their ability to design and implement specially tailored instruction for this unique

population. The theme underscores the importance of specialized training and expertise in addressing the unique needs of dually identified ELs. The following are quotes from the three EL directors supporting ELD-T1.

1. "I feel confident supporting SPED teachers of EBs at a surface level. I recognize there is much room for improvement in supporting our twice-exceptional students." (Director 1)
2. "Since I am not a trained special education educator, I am not an expert in designing specially designed instruction for these students." (Director 2)
3. "I am not a Special Education Certified Educator; therefore, my experience is not as profound as those who have these credentials." (Director 3)

**ELD-T2: Collaboration Between EL and Special Education Staff Needed.** ELD-T2 evokes the sentiment that collaboration is necessary and cooperation between EL and SPED staff could allow EL teachers to provide appropriate interventions for dually identified ELs. The quotes demonstrate a shared understanding that effectively supports the need for collaborative efforts between SPED and EL educators. These quotes provide valuable insights from EL professionals on how to create the optimal setting, services, and educational experiences to ELs with special needs. The ELD-T2 theme suggests that a collaborative approach, such as sharing insights and expertise across the EL and SPED departments, may lead to more effective planning and implementation of EL and special education learning interventions and experiences within their respective school districts. Quotes from EL Directors Two and Three are relevant and support ELD-T2 well.

1. "I feel that the EL staff would have to work very closely with the SPED staff in order to provide the appropriate interventions for EL students." (Director 2)
2. "I do work closely with our Special Education Director and include their insights when planning and providing Special Education Professional Learning for all our School District." (Director 3)

**ELD-T3: Certification and Staffing Challenges.** ELD-T3 reveals the difficulties related to recruiting, staffing, and certifying ESL (English as a Second Language) with SPED-certified teachers. The directors highlight the struggle to get SPED staff certified in ESL and the urgent need for bilingual SPED teachers, especially those proficient in Spanish. The quotes reveal a concern that while some needs of ELs served under IDEA are being met, a significant gap in meeting the language and academic needs of dually identified ELs exists. The directors' statements underscore the critical challenges of staffing and certification that must be addressed to ensure comprehensive support for all their students.

1. "Recruiting and staffing ESL-certified SPED teachers is the biggest challenge." (Director 1)
2. "First, getting our SPED staff certified in ESL is always a struggle. I think we do a decent job of meeting the needs of our ESL students in SPED, but I do not think we are meeting all of the language needs of our bilingual students, who primarily speak Spanish. Most of our SPED staff are monolingual. We are in desperate need of more bilingual SPED teachers and diagnosticians." (Director 2)

**ELD-T4: Language Proficiency versus Other Support Needs.** The last EL directors-related theme focuses on the difficulty of distinguishing between predictable stages of second language acquisition and a disability. Narrowing the student's needs through various assessments is time-consuming and can be daunting and meticulous. ELD-T4 emphasizes the importance of accurate identification and the need for a holistic approach to supporting EL students who may have multifaceted needs beyond language proficiency. It is essential to note this theme was discussed by researchers many times. Since ELD-T4 is supported only by Director Three's comments, researchers debated its validity for inclusion as a theme during the thematic analysis peer-debriefing process. After debate, researchers decided unanimously that this is a theme and should be included in this study.

1. "The biggest challenge is identifying the source of the student challenges. Educators don't always know if the academic challenge is due to the lack of English language proficiency or if it is because the child is in need of other support beyond language support. We do our best to figure out the child's concerns with various assessments that help us narrow down the student's concern, which takes a long time." (Director 3)

## **Discussion**

### **Inconsistent Terminology**

Prior to delving into the literature review, we recognized and addressed the assortment of terms used to refer to students acquiring English as an additional language. For this research study, we adopted 'English learners' and 'dually identified English learners' as our standard terminology, a decision made to ensure coherence and comprehension throughout the article. However, it is noteworthy that the study participants exhibited inconsistency in their use of terminology, with one respondent using two different terms within the same response. The terms and acronyms used by the participants include EL learners, English learners, emergent bilinguals, ELs, ELLs, and EB. One respondent used "twice exceptional" to refer specifically to English learners receiving special education services. This wide array of terms mirrors the inconsistent terminology in the existing literature, highlighting the need for more standardized language in this field of study.

### **Intersection of Language and Disability**

#### ***Professional Development***

Some respondents found their training in English Learner (EL) strategies beneficial when working with students who were dually identified, as they perceived an overlap of effective strategies applicable to both ELs and students receiving special education services. However, teachers also pointed out the challenge of distinguishing between behaviors typical of second language acquisition and those potentially signaling a learning disability. This challenge highlights the necessity for specialized professional development focused on instructing English learners with special education needs. Interestingly, the three EL directors felt they needed special education training to meet this population's needs more effectively.

### ***Collaboration***

Teachers and directors emphasized the need for collaboration between EL and special education teachers and staff. This collaboration, coupled with targeted professional development in serving dually identified ELs, could assist teachers in distinguishing whether an EL student is progressing through the natural stages of language acquisition or exhibiting behaviors suggestive of a learning disability.

### ***Highly Qualified Teachers***

Due to the significant gap in meeting the language and academic needs of dually identified ELs, school districts should offer incentives and promote targeted recruitment efforts to attract teachers and directors with both ESL and special education certification. Having highly qualified personnel to serve this student population has the potential to prevent misdiagnosis and increase student success.

## **Recommendations and Conclusions**

To address these challenges and build upon the strengths identified in this study, several recommendations are put forth. The responses indicated an inconsistent use of program terminology. It is recommended that a common nomenclature is developed by experts in the field to improve communication in practice, policy, and research. Furthermore, educational professionals have a pressing need for policymakers, the Texas Education Agency, and the US Department of Education to standardize the terminology surrounding the education of English learners. Achieving this consistency is crucial for ensuring uniformity in the services provided to these students.

In addition, providing specialized training and professional development opportunities is essential. Educators should prioritize offering workshops, courses, and resources that specifically address effective instructional strategies for English learners with special needs. This type of training can significantly enhance teachers' and directors' confidence and knowledge, ultimately benefiting the academic achievement of dually identified students. It is also advisable for EL and special education teachers to receive training on culturally and linguistically appropriate pre-referral processes for ELs with potential disabilities. Developing a pre-referral protocol that aligns with these considerations is highly recommended.

Collaborative efforts between EL and special education staff are equally important, as they can lead to more comprehensive support systems and more tailored interventions for students. By providing built in planning time in the school day, EL and special education teachers have opportunities to discuss challenges, share best practices, and develop new strategies for supporting dually identified students. This built in planning time would also allow teachers to identify overlapping techniques.

It is also important to note that attention should be given to the recruitment and retention of ESL-certified special education teachers. Districts can support these efforts by providing specialized training through incentives and support for teachers pursuing dual

certification. Having teachers certified in both areas of need can help teachers feel more confident in their abilities to address the unique challenges faced by these students. Teacher confidence would promote differentiated instruction for English learners with special needs.

### **Future Studies**

Future studies could examine the need for an individualized education plan meeting checklist that would foster collaboration between all members of the student's support team. In addition, a future study that provides English learner and Special Education teachers an opportunity to communicate their needs for targeted training in recognizing and understanding those behaviors exhibited in the early stages of second language acquisition that mimic those of a learning disability. Last, evaluating the self-efficacy of EL teachers and directors across the state or nation to further inform practice and policy.

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## Taking the Pulse of Special Education Campus Needs: An Initial Analysis of the Special Education Campus Needs Assessment (SECNA)

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### **Abstract**

*The role of a school principal is multifaceted and demanding, often leading to significant emotional exhaustion and burnout. This study explored the challenges faced by veteran principals in balancing their professional and personal lives through a qualitative methodology. It aimed to understand how these principals navigated the complexities of their roles to maintain both their effectiveness in schools and their personal well-being. The research was grounded in three theoretical frameworks: border theory, distributive leadership theory, and the multidimensional theory of burnout. Border theory provides insights into how principals manage the boundaries between work and home life. Distributive leadership theory examines the sharing of leadership responsibilities to reduce individual workload and support the instructional progress of the school system. The multidimensional theory of burnout explores the stages and symptoms of burnout, focusing on emotional exhaustion, depersonalization, and reduced personal accomplishment. Findings revealed strategies that principals can engage in to establish boundaries, distribute leadership tasks, ensure they have support at home and work, and manage burnout symptoms. The study also brought to light the concept of work-life fit rather than work-life balance, which suggests that the demands and culture of the work environment must be in alignment with the individual's needs at home.*

*Keywords:* principalship, principal retention, work-life balance, burnout, educational leadership, distributive leadership, border theory, work-life fit

## **Surviving and Thriving in the Principalship: The Balancing Act Between Home and Work**

The purpose of this qualitative study was to explore the experiences of how veteran principals with young families perceive and experience the symptoms of burnout and how they navigate and engage in finding a balance between work and home life. In this study, veteran principals were defined as having been a school principal for a minimum of five years at their current school. Further, young families were defined as having children in kindergarten through 8<sup>th</sup> grade.

As job demands of the principalship change and intensify, finding a balance between work and life becomes increasingly challenging and emotionally exhausting, causing principals to leave their tenure in schools before they have time to develop positive student outcomes (Grissom et al., 2021; Hauseman, 2020). Ensuring the retention of principals calls for reform to many current practices. However, more and more principals report struggling to maintain the balance in their lives needed to successfully engage in instructional leadership and life satisfaction (Levin et al., 2019). This study emphasized the qualitative exploration of veteran principals' lived experiences with the symptoms of burnout and their experience with the borders of work-life balance.

While the impact of the principal is significant for student learning (Grissom et al., 2021), the declining mental well-being of school principals has also become a significant factor, which has led to an unstable principal workforce (Maxwell & Riley, 2016; Persson et al., 2021). With 42% of principals considering leaving the principalship due to the overwhelming workload they experience (Levin et al., 2019), it is critical to learn more about how veteran principals navigate their emotional exhaustion and organize their days at work and at home to find a healthy balance to support their mental health and extend their tenure in the principalship.

The principalship is in a tenuous position as more principals consider leaving their schools and/or roles as building leaders (Levin et al., 2020). Those who have indicated they are thinking about leaving their role often cite their working conditions as the biggest reason for having a desire to leave the principalship. Included in working conditions is a lack of support from the district for students and staff in addition to a heavy workload and at times, unmanageable workload (Levin et al., 2020). Knowing that the principal has a significant impact on student learning (Grissom et al., 2021), this researcher sought to understand the experiences of those principals who have maintained tenure in their schools in managing their work-life, home-life, and symptoms of job burnout. The outcomes and data from this study have the potential to support principals in learning how to manage their workload at home and at work, while shifting those feelings of emotional exhaustion, depersonalization, and ineffectiveness toward feelings of positive engagement.

### **Research Questions**

The central research question asked: in what ways does a healthy balance between work and life contribute to the stability of veteran principals who have young families to their tenure in the principalship? The following research questions guided this qualitative study:

R1: How do veteran principals who have young families perceive/describe their workload?

R2: How do veteran principals who have young families perceive/describe their family/home life?

R3: To what degree, if any, does the balance between home and work lead to symptoms of burnout (e.g., emotional exhaustion, depersonalization, and reduced personal accomplishment)?

### **Theoretical Framework**

This study used aspects of the theoretical frameworks of border theory (Clark, 2000), burnout theory (Maslach, 1998), and distributive leadership theory (Spillane, 2005) to better understand the influence of work-life balance on the experiences of veteran principals with young families.

To understand the complexities that underpin the study of how veteran principals navigate their experience with emotional exhaustion and work-life balance, the *Border Theory of Work-Life Balance* theories (WLB) structured the theoretical framework (Clark, 2000). Border theory is a newer addition to the WLB theories. Clark (2000) took much of the existing literature and looked for what was missing and how to bring it all together. There was specific exploration into conflict theory and human capital theory to provide a base of research for her new approach, examining how people navigate the balance between work and life (Clark, 2000). The central concept is that work and home are two distinct domains that individuals move between throughout their days and life. The work and home domains are then viewed through the borders that everyone has created for themselves (Clark, 2000).

*Distributive Leadership Theory* places an emphasis on leadership as a practice rather than the roles, functions, routines, and structures of leaders and leadership. Within the practice of distributive leadership, the focus is on the interaction of leaders, followers, and their situation (Spillane et al., 2006). The interactions among this triad are fluid and based upon the context or task to be accomplished.

*The Multidimensional Theory of Burnout* as developed by Maslach (1998) examines burnout in relation to the three core components: emotional exhaustion, depersonalization, and reduced personal accomplishment. As a result of exploring burnout through this approach, the theory can move beyond the individual experiences with stress and expand the discussion to how one experiences stress within a social context (Maslach, 2003). In this context, burnout is an individual's experience with stress connected to self-perception, perception of others, and the complex social relationships in which one engages (Maslach, 1998). What sets the multidimensional theory of burnout apart from other stress related theories is that it recognizes that emotional exhaustion is only one component of the burnout experience: within the context of the work environment, high levels of exhaustion lead to depersonalization or a separation from others and self-isolation.

The school principalship is a multidimensional position, which often requires a significant number of hours outside of the school day to accomplish the managerial and instructional tasks required (Levin et al., 2019). Principals are expected to focus on instructional leadership to support student learning and teacher growth; however, this is coupled with daily managerial tasks and human relations interactions. These increasing expectations of the

principalship lead to higher levels of emotional exhaustion, burnout, and ultimately, principal turnover (Grissom et al., 2021; Persson et al., 2021; Wang et al., 2018).

Across the three theoretical foundations of multidimensional burnout theory, border theory, and distributive leadership theory, there is an interconnectedness which outlines the inquiry and research. The theory of distributive leadership helps to understand how a school principal can delegate and share responsibilities that could otherwise cause feelings of work overload and make their borders more permeable, so they are able to appropriately complete their many work-related tasks on time. This connection between the guiding theories demonstrates how the important concepts of the theories are related, and thus provides the inquiry with a clear direction. For this study, the conceptual framework followed a qualitative methodology, and interview questions were designed from the intersection of big ideas of the theories. These theories supported the collection and analysis of qualitative data through the emergence of themes.

### **Literature Review**

The stability and retention of effective school principals is paramount to the success of students' learning and growth (Grissom et al, 2021). Through a review of the literature on the facets of the principalship in connection to the turnover of principals, it was found that an increasing number of school principals are changing roles, leaving the profession, or switching schools rather than maintaining their position in one school as a result of work intensification and decreased job satisfaction (Wang et al., 2018). This turnover leads to decreased student outcomes in some cases (Grissom et al., 2021). Extensive ideas and suggestions for principal retention currently exist; however, with this knowledge, principal turnover is still an issue reaching a crisis point for schools (Baker et al., 2010; Levin et al., 2020). Current studies offer future researchers insights into principal turnover, working conditions, and levels of emotional exhaustion among principals, building on the existing body of knowledge (Hauseman, 2020; Yan, 2019). Given the significant stress principals face, those who oversee education (e.g., central office, policymakers, personnel leaders) must develop their understanding of effective interventions to better support these leaders (Persson et al., 2021).

Within many of the studies reviewed, researchers identified existing gaps, particularly in the research on principal impact. One of the gaps noted was how today's school leaders are no longer in their positions for the same amount of time as they were when the research on principal impact began (Grissom et al., 2021). In 2019 it was reported that principals are only found to be stable in their positions for an average of 4 years (Levin & Bradley, 2019). With the impact of the Covid-19 pandemic still being researched and understood, studies of principal turnover in a post-pandemic era may continue to contribute to the body of knowledge on principal turnover and tenure (Persson et al., 2021). When examining how to better retain principals, studies provide implications for district office leadership to consider like increasing access to professional learning, mentoring, and agency in decision making. None the less, additional research is needed to understand ways in which district office administrators and principals can partner together to support the mental well-being of the principal, what well-being means, and what that would look like in practice.

Finally, within the studies on emotional exhaustion, burnout, or work-life balance, the studies do not account for information about what habits lead to emotional exhaustion or prevent emotional exhaustion. These could become part of future survey questions or interview questions depending on the methodology. Of the studies used in this research on understanding turnover and the emotional exhaustion of the principalship, 12 were conducted quantitatively and three using qualitative or mixed methods for inquiry. While patterns have emerged from the literature to date on the relationships between variables, it is critical that researchers begin to explore the phenomena of principal turnover and the emotional exhaustion of the principalship (including work-life balance) through a more humanistic perspective. To have a full understanding of what is going on in educational administration, qualitative data are needed.

### **Methodology**

The central research question in this study asked, in what ways does a healthy balance between work and life contribute to veteran principals who have younger families to their tenure in the principalship? The following research questions guided this qualitative study:

R1: How do veteran principals who have younger families perceive/describe their workload?

R2: How do veteran principals who have younger families perceive/describe their family/home life?

R3: To what degree, if any, does the balance between home and work lead to symptoms of burnout (e.g., emotional exhaustion, depersonalization, and personal accomplishment)?

Research was conducted using a basic qualitative study, because this approach provided a constructivist look at how people "...construct reality in interaction with their social worlds," (Merriam & Tisdell, 2016, p.25). A basic qualitative study best addressed the research questions of this inquiry to understand how veteran principals with young families interpret their experiences in the principalship with burnout and work-life balance. Purposeful sampling was used to narrow the sample of the participant pool and identify the sample population for the focus group (Creswell & Guetterman, 2019).

The population of interest consisted of elementary school principals who have been in their current principalship for a minimum of 5 years and have a young family. Known networks were utilized including the local principal and superintendent associations, professional contacts across the nation, and X (formerly Twitter) to gather names, email addresses and phone numbers of veteran principals with young families across the nation. Participants were interviewed virtually through Zoom. The sample size for virtual one-on-one interviews were 10 veteran principals with young families. After the one-on-one interviews were conducted, three of those participants were invited to engage in a virtual focus group.

A basic summary of each participant using pseudonyms and including their years as principal, number of and ages of children, if they have an assistant principal, number of teachers, and number of students, is described and outlined in Table 1.



**Table 1***Veteran Principal Study Participants*

| <i>Principal</i> | <i>Years at current School</i> | <i>Number and Ages of Children</i> | <i>Does Principal Have an AP</i> | <i>Grade Levels</i> | <i>Teachers</i> | <i>Number of Students</i> |
|------------------|--------------------------------|------------------------------------|----------------------------------|---------------------|-----------------|---------------------------|
| <i>Brian</i>     | 15                             | 3; 10, 14, 17                      | Yes                              | 6-8                 | 30              | 280                       |
| <i>Susan</i>     | 5                              | 2; 6 & 9                           | No                               | K-5                 | 35              | 380                       |
| <i>Barb</i>      | 8                              | 1; 8                               | No                               | PK-5                | 25              | 300                       |
| <i>Paul</i>      | 9                              | 3; 6, 15, 18                       | No                               | 3-5                 | 30              | 240                       |
| <i>Julie</i>     | 12                             | 2; 6 & 7                           | No                               | K-2                 | 30              | 385                       |
| <i>Luke</i>      | 9                              | 4; 15, 13, 11, 9                   | Yes                              | PK-5                | 60              | 710                       |
| <i>Carl</i>      | 6                              | 2; 9 & 11                          | No                               | PK-2                | 35              | 400                       |
| <i>Larry</i>     | 9                              | 2; 3 & 6                           | No                               | K-12                | 25              | 230                       |
| <i>Nancy</i>     | 6                              | 2; 12 & 17                         | Yes                              | PK-8                | 55              | 600                       |
| <i>Steve</i>     | 6                              | 2; 2 & 8                           | No                               | K-4                 | 30              | 300                       |

**Results and Discussion**

This qualitative study resulted in the emergence of five overarching themes, which highlight the experiences and feelings of 10 veteran principals with young families. Each of the five themes had two to three subthemes which delved into veteran principals' perceptions of work-life balance in relation to their symptoms of burnout and how they distribute leadership to support their work as leaders. The five emergent themes were: veteran principals experience a heavy workload, the distribution of leadership within the school is both challenging and necessary, veteran principals recognize the need for borders and develop borders between the domains of home and work, veteran principals have systems and networks of support at home and work, and work-life fit supports the sustainability of the principalship.

**A Healthy Work-Life Balance and the Stability of Veteran Principals**

When someone struggles to emotionally manage the work domain, those borders must be more segmented and rigid. This was Susan's experience. In contrast, Barb and Larry had very blended borders, due to their significant overlap emotionally as principals of the schools in

which they live, and their children attend. Further, work family border theory also notes that both the home and work domain cannot be highly demanding, or balance cannot be achieved (Clark, 2000). Through the analysis of data, the participants described overall how their support on the home front decreases the demand they feel at home. Subsequently this allowed them to focus on the demands of work, which were described as more significant.

The veteran principals with young families shared their experiences in navigating the responsibilities at work and home. Theme three, sub-theme one: *Borders between home and work are intentionally developed*, encompasses these experiences of managing the domains of home and work.

In talking about their responsibilities, they also shared how they manage being present in each domain. Their ability to develop boundaries and systems, which allow them to engage at home and work with minimal symptoms of burnout described, indicate that they are finding levels of balance between home and work.

In reviewing the analysis of data in response to the central research question, theme five: *Work-life fit supports the sustainability of the principalship*, provides an alternative consideration to the concept of work-life balance as a contributing factor to the stability of tenure in the principalship. Rather than looking at there being balance between work and home, this theme considers how well the role of principal within their school and the demands of that role fit the specific person. During the focus group, principals discussed that tenure in the principalship may be about finding balance in the right role that matches their wants/needs, skills, and values.

The principal participants in this study provided insight into their experience of the workload they manage, which emerged from the data in theme one: *Veteran principals experience a heavy workload*. Each participant described the multitude of tasks and roles they are responsible for within their school systems. These tasks and responsibilities varied based on the size of the school and whether that administrator had an assistant principal. Three of the participants were in small school districts with fewer central office administrators. As a result, they have additional responsibilities beyond those of a principal in a district with a more robust central office. These responsibilities include curriculum and instruction content adoptions, state grant writing, and leadership across a wider grade band (PK-12). In addition to hefty workloads, participants also expressed that their workday is rather unpredictable. One said, "You never know what's going to hit you when you walk in...The job is never done. You never have the satisfaction of being done with something." This really highlights the stress experience that the unpredictability of the job brings to each day.

The sub-theme, *Principals frequently feel overwhelmed by their workload* begins to answer this research question. This principle captures the perceptions of the veteran administrators in how they experience their workload. Maxwell and Riley (2016) noted that the rising workload principals are experiencing is causing higher levels of emotional exhaustion. Each participant expressed feeling as though their workload was overwhelming, and for most of them led to some degree of feeling emotionally exhausted on a regular basis. They further described that the intensity of their workload varied based on the time of year. One participant shared, "All of this stuff in May gets very, very overwhelming, and I can't do it."

Additionally, the sub-theme, *Student, staff, and district stressors contribute to an increased workload for principals* further demonstrates the perception principals have about

their workload, including what creates an additional burden on their jobs. A notable difference from Friedman's (2002) seminal research on principal burnout is the addition of student stressors to the categories of pressures navigated by principals that adds to their workloads. Four participants described the challenges they face with student discipline, as well as how the students' living conditions impact their ability to attend school regularly and succeed academically. Two of those four participants shared that the 2022-2023 school year was the hardest one they had experienced, citing student discipline issues as the primary cause.

Theme two: *The distribution of leadership within the school is both challenging and necessary*, can act as an indirect network of support for the management of the principal's workload. Analysis of the data demonstrated that when principals engaged in distributive leadership practices, they described a sense of shared leadership and impact on their culture, in moving their work as an instructional leader forward. By developing the leadership capacities of staff who are able and willing also contributes to the management of their workload, as principals are more able to release projects and initiatives to their leadership teams. They also noted that the sharing of leadership tasks became easier the longer they were in their roles, because they better understood the capabilities of their staff and knew who they could trust.

### **How Veteran Principals With Young Families Perceive their Family/Home Life**

The participants each shared varying home structures, routines, and responsibilities. However, all of them expressed the importance of being present and engaged with their families when they were at home. One participant, Paul, described coming home each day, "Once I'm home and you know and everybody's home, then it's straight on family time until people start going to sleep." Several of the participants described their home life as busy with their children's activities during the week and weekends, which dictated how the family spent time together. While they described the enjoyment of watching their children engage in these activities, some noted how this presented a challenge for them (leaving work on time, to drive children around or having time on the weekend to relax). One participant, Susan, shared that she tried to purposefully not schedule her children's activities for Saturdays so they could have quiet family time together.

The participants shared repeatedly how valuable their time at home was. Having this carved out time at home was supported by the sub-theme: *Borders between home and work are intentionally developed to focus on family and being present at home*. Two of the participants had developed tight, temporal boundaries between work and home in which they did not work at home. One participant, Steve, will stay late at work or get to work early to finish his tasks rather than bring them home. He said, "Once I enter that home, I'm going to be a present parent." While the participants in this study recognized needing and developing those temporal borders, they also found that those boundaries must be flexible. They cited that there may be times they are home and striving to be present with their family, but need to engage in work, because there is an emergency, or their superintendent may need something.

The sub-theme, *Unmanageable workloads lead to feelings of guilt and stress at home* describes some of the challenges and difficult feelings principals shared in relation to how their workload and work experiences impact their home. As a result of the emotional exhaustion many principals described, they often went home feeling as though they had little left to give to

their family, or they felt badly that they were not there to help. Barb emphasized, “I know that I should be kinder and more understanding and forgiving at home, but I’ve used it all up, which is sad, but true.” Brian shared, “You know... there’s a lot of guilt sometimes coming home and having not been there to help manage things.” These feelings of the participants demonstrated the impact that workload has on their feeling toward home and how they sometimes experienced returning home.

Finally, sub-theme, *Systems and support networks for managing home* connects to an understanding of how principals from this study perceive their home life, as the supports and systems they have are essential to their engagement with the home environment. Five of the ten participants described having spousal support for managing the home. This management of the home by their spouses led to them describing home as not contributing to feelings of overwhelm. Participants also described needing to have a sense of organization within the home environment, which they achieved through shared calendars with their spouse, developing plans for carpools, and doing online orders for grocery pickups.

### **The Relationship between the Home/Work Balance and Burnout**

Overall, each of the participants shared that at some point in the year they feel emotionally exhausted in relation to their workload. In Maslach’s (1998) multidimensional theory of burnout, emotional exhaustion is the first symptom of work fatigue; however, in this perspective on job burnout, emotional exhaustion alone does not constitute that fatigue. Of the ten administrators in this study, only two demonstrated additional symptoms of burnout with some conversation around depersonalization. Julie noted that there are days she sits in her car and does not want to get out. Two principals shared feeling significant levels of frustration and emotional exhaustion with their roles and workload. They articulated many negative feelings about the stress associated with the people and tasks with which they engaged. Both also described having less support at home than other principals interviewed, and they did not describe having real systems or networks of support at work. Without these systems and networks of support, these participants described feeling high demands at both work and home, which does not support feeling balanced across the domains of home and work.

Across the interviews, four participants described feeling overwhelmed all the time, and only two of the those articulated feeling high levels of emotional exhaustion and some depersonalization. Throughout the research, it appears that feeling less supported and balanced across the home and work environments leads to a greater degree of the symptoms of burnout. Whereas the principals who described lower degrees of feeling overwhelmed and emotionally exhausted still maintained strong connections within their school and home life. These principals also articulated having stronger networks of support and systems for managing their home environment, the principalship, and their own personal needs.

### **Conclusion**

The lived experiences of veteran principals with young families were examined through a basic qualitative study to learn more about their experience in navigating work-life balance, mitigating symptoms of burnout, and maintaining longevity in the principalship. The literature

confirmed that principals feel overwhelmed with their workloads (Levin et al., 2020). Further, the literature also confirmed that principals distribute leadership by matching people's skills with situations (Spillane et al., 2006). A pattern that emerged from the research conducted in this qualitative study was that most veteran principals who experience longevity in their role intentionally develop borders between home and work, that must be flexible for significant work or home situations. They also develop systems for managing their role as principal and their roles as spouse, parent, friend, and family, in addition to having robust networks of support. Another pattern was descriptive of the importance of principals persevering through the early years because that sense of ownership and understanding of their school and the people within the school, help to build their confidence and ability to lead.

### **Practical Implications**

The findings of this study outline three practical implications for principals and districts to consider as they seek to support principal retention and student learning. These practical implications provide a framework with which principals can reflect on their own experience in navigating work-life balance and adjust their practices to decrease burnout symptoms and move towards feeling accomplished. The first implication is that principals need strong systems to manage the demands at work.

Principals are faced with many responsibilities and expectations for managing and leading their school. The School Leader Collaborative (2022) calls out the principal as a learning leader rather than a manager and instructional leader because they are navigating leadership through multiple lenses including systems intelligence and systems domains (School Leader Collaborative, 2022). One system that principals should develop is a system for time management. Having a system of time management would help principals to assign time to completing and engaging with work tasks. This could be arriving to work early, scheduling time during the day, or staying late at work. Another way in which principals can effectively use their time is to reflect on both the importance of a task and the urgency by which it needs to be completed. Finally, principals should learn more about distributive leadership and begin to consider the skill and knowledge of their staff members, so that they can match the sharing of tasks and leadership with the appropriate staff based on the situation (Spillane, 2005). This distribution of leadership supports the principal in managing their workload by building capacity among staff to assume more responsibility for the direction and leadership of school improvement. Principals described feeling more confident in their later years and not being as phased by the stressors they encounter on a day-to-day basis, because they have already experienced them and developed systems for managing the issues along with knowing their staff/community.

A second implication highlights that principals need robust networks of support to balance the challenges and demands of both home and work. These networks of support include home, friends and family, colleagues, and central office. Having district/central office support for school leaders can increase retention rates (Levin et al., 2020). This support often takes the form of someone taking the time to connect with the principal, listen, and provide a safe place for them to share and problem solve. Another way that the central office can support principals is by considering the initiatives and asks of principals in relation to district priorities.

When a district has a significant number of priorities, principals become overwhelmed and struggle to focus their leadership to maximize their output. Friendships and close family connections also provide an outlet of support for principals that may help with managing tasks at home and ensure that the individual principal stays connected and engaged in activities outside of work to counter depersonalization. Finally, principals need support from their home environment. This could take the form of spousal support in helping to manage the responsibilities at home so that when emergencies and situations prevent principals from being present at home, they are not facing an added stress of figuring out how to manage what is happening at home, like their children's activity transportation needs.

A final implication to arise out of this study is that work-life fit is a greater predictor of principal retention than work-life balance. Balance is more about work-life fit than having balance. Levin et al. (2019), Oplatka (2017), and Walker (2019) noted that living in a state of work-life balance continues to be more and more challenging for principals as the demands, pressures, and needs continue to increase. Tenure in the principalship may be less about having balance between the two domains or home and work, but rather about ensuring that both domains are the right fit for the individual. Work-life fit supports the sustainability of the principalship, because it works towards obtaining the right connection across home and work rather than a balance, which is often unachievable. Rather than describing a balance between home and work, the participants' experiences demonstrated that through the support they receive at home, they can manage the demands they have at work. Participants who described having high demands in both home and work incur additional symptoms of burnout.

### **Recommendations for Future Research**

This qualitative study examined the experiences of veteran principals with symptoms of burnout and navigating a balance between home and work. In agreement with the literature, the results indicated that principals do experience a heavy workload, which can cause emotional exhaustion and feelings of being overwhelmed. Additionally, principals reported that the burden of completing their work tasks can disrupt their ability to be present at home. While the participants all reported having heavy workloads, they had varying structures and demographic populations of staff and students, which could contribute to differences in how they perceive and experience their workloads and the systems they develop to support their workload management. It would be beneficial to replicate this qualitative study with principals who have similar district sizes, demographics, and enrollment.

There was a distinction between the experiences of most of the male and female participants, in the spousal support the men had in managing the home environment. This was primarily the result of having a spouse who stays home, works from home, or takes primary responsibility in managing the home domain. One of the four female principals had that same level of support from her spouse. Additional research could be conducted to focus on the experiences of male and female principals separately, in managing work-life balance and burnout symptoms. A gender equity lens could examine if there are inequities in the experiences of principals by gender, in relation to the support they have for managing the home environment.

Finally, the findings of this study demonstrate a need for further research into the concept of work-life fit rather than work-life balance. While this study specially examined principals' experiences with work-life balance, two principals in the focus group described leaving roles because the positions and their associated workloads or circumstances were not a good fit for their personal/family needs. Both participants transitioned to other principal roles. This study would examine the mismatch between the demands of work and home, cultural/values mismatch between individual and system, and malalignment of an individual with the needs of the organization.

### **Recommendations for Practice**

Based on the findings of this study, there are a few recommendations for practice that will support principals in managing their workloads across home and work to successfully lead their schools and mitigate their departure from the district. Principals should intentionally reconsider their current networks of support at home and at work. This intentionality in developing support networks will increase a principal's ability to navigate the various stressors they face. Support could come from an additional person helping physically or having someone to talk with and discuss various circumstances. Principals need physical support and emotional connection to engage effectively with their roles and responsibilities, both at home *and* at work. This includes having help with childcare, driving children to practices, and procuring groceries. Another practical implication is that principals should receive leadership coaching throughout their tenure in the district. Coaching would be a direct avenue of support that the principal would have to navigate the competing interests of stakeholders and the workload resulting from each. Finally, principals need to develop strong and reliable teams of teacher leaders to help move the school forward. The development of systems and opportunities that support the distribution of leadership will help principals manage their workload and enhance their ability to lead their school community.

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# Post Pandemic Reflections: Preparing Leaders for Attending to Teacher Well-Being

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## **Abstract**

*With the 2020 March declaration of the COVID-19 pandemic, normal in the teaching profession was turned upside down with state mandated school closures, changes in instructional delivery, and social isolation. As a result of this educational disruption, as well as new extreme health risks, teacher stress and concern for their well-being increased significantly (Rand Corporation, 2021). Using the theoretical framework of systems theory and purposive sampling, a non-experimental secondary source research study was done with Illinois and Iowa K-12 school superintendents. An online survey collected 2020-2021 district data pertaining to teacher absenteeism, their use of various leaves, resignations, and retirements as these were all means available to teachers as they sought to cope with the pandemic-related stressors and their own well-being. This study also investigated how teacher absences impacted superintendent perception of district morale for the 2020-2021 school year as well as if there was any significant association between the superintendents' state location and their perceived district morale for the 2020-2021 school year. There was an overall population of 694 superintendents, with a sample return rate of 21.61% (N = 150), and data is reported using combined group response. Study findings show: 1) Many teachers used all types of the leaves available to them with some also choosing to resign and retire; 2) superintendents (69%) agreed or strongly agreed that their district morale was lower than it was pre-pandemic; 3) a Pearson's Chi-Square test showed there was no statistically significant association between state location and superintendents' perceptions of lower district morale during the pandemic; and 4) an additional Pearson's Chi-Square test showed there was no statistically significant association between state location and superintendents' perceptions of higher district morale during the pandemic. These findings make a noteworthy contribution to the literature pertaining to university educational leadership preparation programs as they underscore the need for their curricula to prepare aspiring leaders to be more than managers and instructional leaders. In addition, this study adds to the understanding of the impact that the COVID-19 pandemic had on perceived district morale and the importance of effective leadership to be able to address the pandemic's enduring impacts. It is imperative for future leaders to be well-versed in caring for teacher well-being and teaching adult social and emotional competencies, while role modeling trauma-informed care.*

*Keywords:* Teacher well-being, adult social and emotional competencies, trauma-informed, morale

On March 11, 2020, the concept of *normal* in the world of education changed abruptly as it was forced to make a seismic shift in its practices when the World Health Organization (WHO) declared a world-wide pandemic, resulting in sudden temporary school district closures throughout the United States as districts were thrown into a crisis situation (World Health Organization, 2020). In the Midwest, the neighboring states of Illinois and Iowa mandated their temporary school system closures on March 13 and March 15, 2020 respectively. These closures eventually became permanent for the remainder of the 2019-2020 school year as did those in many other states throughout the United States (Ujifusa, 2020; Education Week, 2020). As the pandemic dragged on with no end in sight, it became clear that school districts in many states would be forced to design and implement changes stressing their various systems in everything from personnel and daily practices to accountability measures.

Being an educator has always been a stressful occupation due to organizational stressors and changing mandates from various sources. In 2016, Greenberg, Brown, & Abenavoli found that 46% of all teachers in the United States experience high daily stress that deeply affects their mental health and well-being, often resulting in teacher burnout. Just five years later, the findings from a January of 2021 Rand Corporation report indicated that with the onset of the pandemic, teacher stress had risen exponentially with 78% of teachers reporting having experienced more frequent job-related stress than 20% of employed adults nationally (Rand Corporation, 2021).

In the spring of 2020, Illinois and Iowa teachers found themselves facing new and unfamiliar system-impacting stressors as the result of top-down mandates issued from their respective state governments. In both states, these imposed directives pertained to: 1) when and how long schools would be closed; 2) student and personnel attendance; 3) changes in grading policies (e.g. no student can fail, credits were not to be denied); 4) meeting the needs of all students through standards-based remote learning delivery and activities which translated into using technology to which teachers had no access or for which they had had no professional development (Illinois State Board of Education, 2020; Iowa Department of Education, 2020). In addition, many educational leaders and teachers were also being forced (by directive or politics) to return to face-to-face teaching during the 2020-2021 school year while yet serving in another role, that of being an executor of their district's comprehensive infection prevention and control plan.

These unexpected and unprecedented pandemic stressors did indeed impact teachers' health and their well-being. The National Center for Education Statistics (2022) shared that during the 2020-2021 school year 49% of the public schools in the United States reported teacher absences as having increased. Kush et al. (2022) believe this was due to the significantly higher rate of anxiety that teachers reported for this time.

These pandemic stressors also impacted teacher morale and their attitudes towards the profession. Zamarro et al. (2021) found that teachers' attitudes changed from March of 2020 (pre pandemic) to March of 2021 (during the pandemic). Their research outlined the facts that many teachers became less certain that they would work a full career in the classroom and many considered leaving or retiring during the 2020-2021 academic year. These attitude shifts are certainly demonstrative of an increasingly lower state of morale, and a national EdWeek Research Center survey that was done in November of 2020 indicated that teacher morale had plummeted over the course of the pandemic with 85% of the respondents noting that overall teacher morale at their school was lower than it had been in March of 2020.

In addition to a plummeting morale and increasing health concerns, teachers also found themselves in the perilous situation of being the targets and victims of political fall-out emanating from societal disagreements pertaining to the calls for social distancing practices, the wearing of masks, and vaccinations for all. These new and additional stressors certainly had the potential to affect each individual teacher's well-being in many ways. Nabe-Nielsen et al. (2022) highlight some of these effects as being emotional exhaustion and adding to teacher's mental health challenges while Greene and Butcher (2023) found that, nationwide, 72% of public schools had higher teacher absenteeism rates than before the COVID-19 pandemic.

## **Review of the Related Literature**

### **The Impact of Teacher Absenteeism on Student Learning**

There is significant research on teacher absenteeism that substantiates the fact that a teacher's role is the most significant of school-based inputs impacting student learning (Clotfelter, Ladd, and Vignor, 2009; Hanson and Quintero, 2020; Hattie, 2008; Marzano, 2003). Hattie (2008) and Marzano (2003) share that the daily impact of decisions made by the individual teacher supersedes that of the decisions made at the school level. Hanson & Quintero (2020) determined that when a teacher is chronically absent (defined as missing 10 or more school days in a 180-day school year), a regression in student learning is realized with one of the consequences of a chronically absent regular classroom teacher being a significant disruption of instruction. Additionally, Clotfelter, Ladd, and Vignor (2009) specifically noted that while the historical rate of teacher absence in the United States is just below that of 10 days (being approximately 9 days per school year or about 5%), the potential harm to student learning must be considered. Frontline Education (2016) confirmed that the absence rate of 5% continued during the 2017-2018 school year but further noted that in that same academic year, a nationwide loss of roughly 850 *million* instructional days occurred because of teacher absences that left classrooms filled with substitute teachers. Additionally, this same source compared the loss of student learning resulting from teacher absenteeism to the loss of productivity in a business where there is an employee who is chronically absent with no one to take over those responsibilities. The important difference to note between chronically absent teachers and chronically absent business employees is that student learning cannot be made up in overtime. In a blog by Daly (March, 2024), he suggests that the high rate of absenteeism is, in part, the result of a progressive series of challenges rooted in the growing lack of respect for the teaching profession that has been festering for a number of years, well before the pandemic. He further contends that the pandemic exacerbated the attendance problem. In his home-state of Illinois, Daly indicates that the State of Illinois considers ten absences worthy of concern because the National Bureau of Economic Research has shown that when teachers are absent for ten days or more, student outcomes decrease significantly.

Knowing that some teacher absence is inevitable, no matter what the time period or the circumstances, educational leaders are faced with the difficult task of finding a balance that addresses this inevitability while also prioritizing student learning. This balancing act became arguably impossible during the COVID-19 pandemic when all schools across the nation were closed for the final portion of the 2019-2020 school year. Then, during the summer of 2020,

educators planned for major restructuring to accommodate student learning which was implemented during the 2020-2021 school year, and dependent upon the state directive for that school year, some school districts went back to providing in-person instruction, some provided hybrid instruction, and some remained completely online (Illinois State Board of Education, 2020; Iowa Department of Education, 2020).

Chatzipanagiotou and Katsarou (2023) noted that it is clear that the COVID-19 pandemic radically disrupted *normal* schooling for both students and teachers, and that those disruptions continue to have enduring effects still today. In the throes of the pandemic during the spring of 2020, teachers were required to pivot overnight from teaching students in person in a common physical facility where others were present to teaching remotely in isolation from their own homes. At the same time that these mandated work environment changes were occurring, these same teachers were trying to care for themselves and their families during worldwide pandemic conditions. This initial monumental disruption lasted for all teachers from March of 2020 through May of 2020. For some, dependent upon their individual state directives, school closures and other pandemic measures lasted into and throughout the 2020-2021 school year, impacting teacher well-being, with this being reflected through teacher absences and morale.

The impact on student learning of the various tentacles of the pandemic is well documented through the National Center for Education Statistics (NCES) 2022 special administration of the National Assessment of Educational Progress (NAEP) for students (age 9). This special testing administration was done to ascertain a more conclusive measurement of the negative impact on student learning in reading and mathematics as a result of the pandemic conditions. Average assessment scores were shown to have declined five points in reading, the largest average score decline since 1990, and seven points in math, the first ever score decline in math (National Center for Education Statistics, 2023).

While the pandemic's impact on student learning is quantifiable, the negative impacts on teacher well-being is more difficult to measure. As noted by Chatzipanagiotou and Katsarou (2023), striving to alleviate staff fear and anxiety with very limited, and often changing information on how the virus worked, coupled with the restrictions and recommendations that were imposed upon them [staff], resulted in a new reality rooted in open threats to school resiliency. However, through the review of logged district data for the 2020-2021 school year as it pertains to teacher absence, their use of leaves available to them, and vacancies created by those leaving the teaching profession, inferences can be made. It is interesting to note that for the 2020-2021 school year, the National Center for Education Statistics (2023) determined that teacher absenteeism had surged by 72% and others simply left the profession as a result of changing how student instruction was delivered (Dilberti et al., 2021), as well as stress and concern for their well-being. It is also interesting to note that chronic absenteeism rates continue to remain high, post pandemic in many states. With the continued discussion about the learning gaps experienced by students as a result of the pandemic, what appears to be making the pandemic learning worse is the continuing pattern of chronic teacher absences many states are facing (Bloomberg, 2024).

## **Studying the Impact of Illinois and Iowa COVID-19 Mandates on Teacher Attendance**

### **Study Purpose and Structure**

The purpose of this non-experimental secondary source research study was to investigate the effect of Illinois and Iowa state-issued pandemic-related mandates on the well-being of teachers in each state in terms of how they dealt with the stressors of the pandemic through the use of various leaves that were available to them, as well as through providing resignation or retirement notices. Utilizing an online Google survey, K-12 Illinois and Iowa school superintendents were asked to provide district statistical data pertaining to these categories. The survey also included a perception question for superintendents pertaining to their thoughts as to perceived changes in district morale from the 2019-2020 school year (pre-pandemic) to the 2020-2021 school year (during the pandemic). This design was appropriate for this study as non-experimental research lacks the manipulation of an independent variable (in this case, the state location), and it is usually descriptive of a situation or phenomenon that is being described simply as it stands with no interference from the researcher (Tourigny, Clendinneng, Chartran, & Gaboury 2011).

The data, findings, and practical implications resulting from this study are valuable to university educational leadership preparation programs as future educational leaders will most certainly be managing the lingering effects of the pandemic on teacher well-being for years to come. It is through the analysis of this study's data and findings and current research/best practices in addressing teacher well-being that practical implications for university leadership preparation programs are offered in an effort to strengthen future leaders' competencies in these areas.

### **Theoretical Framework for the Study**

A theory in quantitative research is an interrelated set of constructs that specifies the relationships among variables and helps to explain phenomena that occur (Creswell et al., 2018). In this study, the theoretical framework of systems theory was used. This theory, credited to Ludwig von Bertalanffy, posits that the component parts of a system are best understood in the context of their relationships with each other and other systems, rather than in isolation (Wilkinson, 2011). More specifically, a school system is made up of many smaller systems (e.g., the financial system, the human resource system, the curricular system, etc.). With the focus, in the education arena, on encouraging the interaction of multiple stakeholders within and outside a system to work together for a common goal, the use of this theory as the framework for this study is appropriate (Lalande & Baumeister, 2015). In essence, systems theory recognizes the complexities of how multiple parts of a system are interdependent and affect one another in different ways and is, therefore, a vital part of what educators do, how they understand the nature of issues, and how support change (Ndaruhutse, Jones, & Riggall, 2019).

Specifically, in the educational arena, system's theory took center stage through the growing realization that educational reforms were not having the desired effect. Historically, educational reform efforts were such that many small incremental changes were made instead of a few larger shifts, and those changes that were made remained pretty much within the boundaries of the existing system, thereby viewing the educational system as simplistic. Over the

last decade, in large part because of societal events, educational policymakers have been challenged to regard education as a more complex system with many moving parts. Systems thinking has become increasingly central for organizations to ensure those moving pieces interact smoothly (Ndaruhutse, Jones, & Riggall, 2019). According to Laoyan (2024), when all organizational systems interact smoothly, the end result is good cultural morale, meaning that employee satisfaction is high.

The United States Department of Education (2021, para 1) indicated that the responsibility of providing education to America's students "...is primarily a state and local responsibility in the United States. It is states and communities, as well as public and private organizations of all kinds, that establish schools and colleges, develop curricula, and determine requirements for enrollment and graduation." Consequently, it is each individual state's system of education that impacts each and every school district system in that state and, in turn, every system within each of those school districts, ensuring that student education addresses the expectations and demands of society. With the onset of so many state-mandated pandemic-related system changes during the 2020-2021 school year, school districts as smaller systems within that state framework, were tremendously impacted.

## **Study Research Questions and Methodology**

### ***Research Questions***

The three research questions that this study sought to answer were:

1. How did state-issued pandemic-related mandates and health related concerns impact K-12 Illinois and Iowa teacher absenteeism overall during the 2020-2021 school year?
2. As a result of these mandates and related teacher absenteeism, what were K-12 superintendent perceptions of their district's morale for the 2020-2021 school year (during the pandemic) as compared to the 2019-2020 school year (pre pandemic)?
3. Was there a statistically significant association between the state location (Illinois or Iowa) and superintendent perceived district morale as to being higher or lower during the pandemic school year of 2020-2021?

### ***Population, Instrumentation, Data Procedures, Survey Sample***

Purposive sampling was used in determining the population for this study because the population being studied was one whose characteristics are relevant to the study (Andrade, 2021). This type of sampling is often referred to as judgment or expert sampling. Certainly, those K-12 Illinois and Iowa superintendents who were responsible for implementing state issued mandates during this study's time period (the 2020-2021 school year) can be considered experts in this area. The population for this study was obtained by downloading the Excel file of the public- school directory from each state's respective department of education website. Data was scrubbed from each file, leaving only the pertinent and complete information for each K-12 public school district in each state (superintendent name and email). As a result, between the two states, there were 694 public school districts.

Upon the survey’s closing deadline, results were downloaded from the survey into an Excel file and data was again scrubbed, leaving only those surveys that had been fully completed. Respondent answers to the survey question regarding superintendents’ perceptions as to district morale were coded into two categories, agree or disagree, for their perceptions of higher morale and then again for their perceptions of lower morale. This was done for the purpose of being able to perform two Pearson’s chi-square tests of independence. One test used the variables of state location and superintendents’ perceptions regarding perceived higher district morale while the second test used the variables of state location and superintendents’ perceptions of lower district morale. The Statistical Package for the Social Sciences (SPSS) was used to obtain both the descriptive and inferential statistics for this study.

Overall, there was a sample return rate of 150 respondents (21.61%), from a population of 694, with the most of the survey completers (101 or 67%) being from Illinois and 49 (33%) of the respondents being from Iowa. The majority of completers were male, with 76 (75.8%) being from Illinois and 35 (71.4%) being from Iowa. This is not surprising as the majority of superintendents in each state is male as reported in each state’s public-school directory. In Illinois, the majority of survey completers served in school districts with enrollments of 1 to 999 students (98.4%). There was a tie in terms of the number of years of total superintendent experience with 25.8% having 2 to 5 years of experience and 25.8% having 6 to 10 years of experience. In Iowa, the majority of survey completers served in school districts with enrollments of 1 to 999 students (60%) and the majority of respondents (34.3%) had 2 to 5 years total of superintendent experience. Table 1 summarizes the demographics of survey respondents.

**Table 1**  
*Demographics of Study Respondents*

| Demographic Trait                             | Illinois | Iowa   | Overall |
|---|----------|--------|---------|
| Female Respondents                            | 22.60%   | 28.60% | 25.3%   |
| Male Respondents                              | 75.80%   | 71.40% | 74.0%   |
| Declined to respond                           | 01.60%   | 00.00% | 0.07%   |
| 1-999 student enrollments                     | 98.40%   | 60.00% | 55.30%  |
| 1,000-4,999 student enrollments               | 00.00%   | 40.00% | 34.70%  |
| 5,000-9,999 student enrollments               | 01.60%   | 00.00% | 08.00%  |
| 10,000-29,9999 student enrollments            | 00.00%   | 00.00% | 02.00%  |
| First year as a superintendent                | 12.90%   | 08.60% | 07.30%  |
| 2-5 years of experience as a superintendent   | 25.80%   | 34.30% | 25.30%  |
| 6-10 years of experience as a superintendent  | 25.80%   | 28.60% | 30.00%  |
| 11-15 years of experience as a superintendent | 19.40%   | 14.30% | 22.00%  |
| 16+ years of experience as a superintendent   | 16.10%   | 14.30% | 15.3%   |

## Study Findings

The first research question in the study focused on how state issued pandemic-related mandates impacted K-12 Illinois and Iowa educator attendance overall during the 2020-2021 school year. Using the first official start date of their district’s 2020-2021 school year as the start date for the



data collection, superintendents were asked to identify how many teachers in their district had taken paid leave under the Family Medical Leave Act (FMLA) or the Families First Coronavirus Response Act (FFCRA), respectively, for any number of days, citing COVID-19 as the reason. Of the 150 superintendent survey respondents, only 28 (18.5%) cited that they had 0 (zero) teachers who did not take FFCRA leave for at least one day, and 82 (54.3%) cited they had 0 (zero) teachers who did not take FMLA for at least one day noting COVID-19 as the reason. To further detail this, 122 superintendents (80.8%) shared that they had at least one teacher use FFCRA, and 68 superintendents (45.3%) cited that they had at least one teacher use FMLA with COVID-19 cited as the reason. Even more staggering is the finding that of the 122 superintendents (80.8%) who identified that at least one teacher took FFCRA, 35 of those same superintendents (28.7%) reported that they had 20+ teachers who invoked leave using FFCRA. While not as many teachers used FMLA with COVID-19 being cited as the reason, of the 68 superintendents (45.3%) who cited that they had teachers using FMLA, 9 (13.2%) reported that they had 20+ teachers who used FMLA with COVID-19 as the justification. These findings (specifically pertaining to educator use of various leaves) suggest that many educators were simply not ready to return to teaching for the 2020-2021 school year. Table 2 highlights types and amounts of teacher leave used as reported by survey respondents.

**Table 2**

*Reported Leave between the Official Start of 2020-2021 and February 2021*

| Leave type                                      | Respondents reporting no teachers taking leave | Respondents reporting at least one teacher taking leave | Of the respondents reporting at least one teacher taking leave, percentage having 20+ taking leave |
|---|--|---|--|
| Families First Coronavirus Response Act (FFCRA) | 18.5%  | 80.80%  | 28.70%   |
| Family and Medical Leave Act (FMLA)             | 54.30%   | 45.30%  | 13.20%   |

Survey respondents were then asked how many certified teachers in their respective districts resigned at the end of the 2019-2020 school year documenting COVID-19 as the impetus. Overall, 23 superintendents reported the resignation of at least two certified teachers who cited COVID-19 as the reason for their resignation. Between the two states, there were 21 (13.9%) superintendents who reported a loss of 1-5 certified teachers, and two (1.3%) superintendents who cited a loss of between 6-10 certified teachers from the profession due to COVID-19.

Survey respondents were also asked how each state's mandates impacted educator retirement at the end of the 2019-2020 school year. Specifically, superintendents were asked to identify how many of their district's certified teachers left their respective districts as a result of an unplanned retirement due COVID-19. Overall, 31 superintendents reported that at least one certified teacher had retired from the district because of COVID-19 with 28 (18.7%) superintendents reporting 1-5 certified teachers taking unplanned retirement and three (2%)

superintendents reporting 6-10 certified teachers had taken unplanned retirement while citing COVID-19 as the reason.

Finally, pertaining to this research question, respondents were asked about the number of teachers who had requested to work from home, those who had abandoned their jobs, and those who had died from COVID. Approximately 43% of all superintendent respondents indicated that they had 1 to 5 teachers who requested to work from home. Regarding job abandonment, 96% reported they had- no one who had abandoned their teaching position, however, 4% (five Iowa respondents) indicated that they had experienced having 1 to 5 teachers abandon their jobs. Only 1% of all respondents shared that they had 1 to 5 teachers pass away with COVID-19 being documented as the reason.

The second research question in this study explored the impact of teacher absence (for whatever reason) on K-12 superintendent perceptions of their district's morale for the 2020-2021 school year. Specifically, superintendents were asked to provide their perceptions of district morale during the pandemic. The data tabulated showed that 103 of the 150 superintendents (69%) agreed or strongly agreed that their district morale was lower during the pandemic than it had been before the pandemic. When superintendents were asked if their perceived morale during the pandemic was higher than it had been pre-pandemic, only 21 of the 150 respondents (14%) agreed or strongly agreed that it was higher during the pandemic.

The final research question sought to determine if there was a statistically significant association between the state location (Illinois or Iowa) and superintendents' perceived district morale for the 2020-2021 school year being higher or lower than pre-pandemic. To determine this, a Pearson's chi-squared test statistic was obtained for each (state location and perceptions of higher morale and then again with state location and perceptions of lower morale). These inferential tests were appropriate to perform as there were two categories for each chi-square test.

Using an alpha of .05, a Pearson's chi-square test of independence was performed for the first set of categorical variables, state location and agreement/disagreement as to superintendents' perceptions of higher district morale during the pandemic, as compared to before the pandemic. The analysis revealed that there was no statistically significant association between state location and superintendents' perception of higher district morale during the pandemic as indicated by a chi-square test statistic of .871 with 1 degree of freedom and a p-value of .351.

Next, again using an alpha of .05, a second Pearson's chi-square test of independence was performed for the second set of categorical variables, state location and agreement/disagreement as to superintendents' perceptions of lower district morale during the pandemic, as compared to before the pandemic. This analysis also found that there was no statistically significant association between the state location and superintendents' perceptions of a lower district morale during the pandemic as indicated by a chi-square test statistic of .018 with 1 degree of freedom and a p-value of .894.

## **Discussion and Practical Implications of Findings**

### **Discussion on the Importance of the Study**

The findings from this study (which explored teacher absences during the peak of the COVID-19 pandemic and their perceived effect on district morale) underscore systems theory and demonstrate how a larger system's mandates (at the state level) impacted local educational systems in various ways. COVID-19 made what was already a high-pressure setting into that of an even higher-pressure setting, and many educators were severely impacted by this increased pressure. Teachers were on the front line and at high risk for contracting COVID-19 due to close contact with students. Literally, overnight, they had to shift to teaching by remote learning and for some this was the first time in their careers that they had to do this. For some, transitioning to remote teaching caused increased workload and stress, which in turn, led to potential burnout. Being absent from these challenges was one way in which teachers could deal with their new and additional stress. These concepts are demonstrated in this study by reporting the large number of and amounts of various leaves that teachers took as well as by the number of unplanned resignations and retirements that were reported.

While there is research that promotes both incentives and disciplinary action when addressing teacher absence, administrators must know their school culture well in order to determine what might best work to deter absence. Incentives may include: 1) additional contributions to teacher retirement plans for those who have a lower number of absences (Frontline, 2016); 2) paying stipends to those who have perfect attendance over a designated span of time (Hansen & Quintero, 2020; Southern Regional Education Board, n.d.); and 3) paying teachers a bonus for not using sick days (Frontline, 2016; United Nations Educational, Scientific and Cultural Organization, n.d.). On the disciplinary end of the spectrum, there may be the implementation of low-stakes disciplinary action as outlined in district policy or the collective bargaining agreement. Within these documents there are often requirements for teachers to supply a medical note from a doctor for any absence related to the use of sick time (United Nations Educational, Scientific, and Cultural Organization, n.d.). Another option is to include absence rates as a component of teacher evaluations and using such evaluation to hold teachers accountable for their absenteeism (Frontline, 2016). The problem of rewarding and/or blaming rather than looking for the root cause and offering a solution is shortsighted at best; therefore, it behooves current educational leaders to consider the uptick in past and recent research (done since COVID-19) so as to be able to focus positive efforts on teacher well-being.

As a result of the COVID-19 pandemic, school climate was impacted on a daily basis, with each school district's unique community and its values. As easily seen in the various forms of media during the time period of this study, culture wars broke out over several state-imposed mandates. These included getting a vaccine or refusing to do, school boards of education affirming or disaffirming the wearing of masks in schools, and those who agreed with students and teachers returning to learning in August of 2020 (when districts had only been shuttered in March of 2020) and those who didn't. All of these had a profound impact on school climate, which in turn, impacts morale. When superintendents in this study were asked for their perceptions as to district morale during the 2020-2021 school year, this study found that 69% of them perceived their district's morale to be lower during the pandemic school year (2020-2021) than it had been pre-pandemic. This is one indicator of the impact that culture wars had on school climate.

The superintendents surveyed in this study were from the two Midwestern states of Illinois and Iowa, with each state's government officials handing down some very different

mandates. One of the most notable was that of Iowa requiring schools to return to in-person learning at the beginning of the 2020-2021 school year. As a result of this mandate, it might be hypothesized that a lower morale might be perceived; however, a Pearson's chi-square test statistic showed that there was no statistical significance between the location of the state and the perception of lower morale.

The understandings derived from this research illustrate the changing role of educational leaders. Now, more than ever, leaders must be prepared to be managers, instructional leaders, and care-givers not only to their students but also to their teachers, attending to their well-being. Most noteworthy, this study also provides insights that contribute to the gap in literature pertaining to the pressing need for university educational leadership preparation programs to evolve and seek to build the capacity of aspiring leaders in attending to their teacher's well-being. Through a curriculum review of the topics and instructional strategies/activities used in leadership preparation courses, an integrated approach can be implemented that will strengthen aspiring leaders' competencies so as to be able to successfully ameliorate the well-being of each teacher with whom they work.

### **Practical Implications for University Educational Leadership Preparation Programs**

It is well-known that teaching is a demanding profession with teachers being exposed to high levels of stress and burnout resulting in a high attrition rate. A 2018 report by the Bureau of Labor Statistics indicated that 270,000 K-12 public school teachers were projected to leave the profession between 2016 and 2026 at roughly 27,000 per year. This report also specified that the number of teachers in the United States had decreased by 600,000 since 2020, with 300,000 of those leaving between February 2020 and May 2022. In 2023, the National Center for Education Statistics (NCES) noted that between the start of the 2020 school year and the close of the 2022 school year, 7.9% of all public-school teachers left the profession, primarily citing retirement and health issues (self or child). Merod (2023) explained that while educational leaders are still evaluating the scope of teacher shortages nationwide, NCES data provides a glimpse into the pandemic's impact on teacher resignation. While this is not a new issue for schools, research suggests that the pandemic has placed a mounting stress on teachers, thereby exacerbating the loss of teachers and teacher shortage.

Although the immediate urgency of the pandemic has diminished, data indicates that teacher absences have continued to rise. Key findings of a May 2022 survey done by the Institute of Educational Services Division of the United States Department of Education share that teacher absences have increased and nearly three-quarters of public schools must frequently rely on administrators, non-teaching staff, and teachers to cover classes during their free periods (United States Department of Education, 2022). Sub Teacher Source (2024), a national educational staffing agency, suggests that when a classroom teacher is absent, there is a ripple effect because teacher absences cost schools money, fellow teachers are often called upon to fill the vacancy if a substitute has not been secured, and when other teachers are called upon to fill such a vacancy they lose precious instructional planning time, thereby negatively impacting their students. With such added stress to their workload, many teachers develop negative feelings toward colleagues who are absent, even if only randomly. The results of a January of 2022 survey by the National Education Association (NEA) reflected that even after 94% of schools had returned to fully in-

person instruction, respondents reported that more than 10% of the teachers at their school were absent due to COVID-19 exposure and 74% of the respondents reported having to fill in for a colleague due to staff shortages.

These statistics regarding teacher absence are noteworthy because students miss key instruction if their regular classroom teacher is absent. This, in turn, has a negative effect on their understanding of content and, subsequently, their student achievement and assessment results. A chronic teacher absence rate (identified as more than 10 days per academic year), can be a telling sign of morale and engagement (Frontline, 2016). Thus, to ensure education quality and student learning, addressing teacher absenteeism must be a top priority and aspiring educational leaders must be provided some skills in addressing it.

University educational leadership preparation programs might start by teaching aspiring leaders about adult social and emotional competencies. These competencies can reduce stress and improve the overall well-being and emotional state of adults in school settings while also increasing their feelings of competence and self-efficacy, thus creating a more positive work environment (Wisconsin Department of Public Instruction, n.d.). To build these needed competencies, school districts must plan and deliver professional learning opportunities for all staff to learn and understand them as well as their day-to-day roles in adult collaboration, planning, and self-care (Wisconsin Department of Public Instruction, n.d.).

To prepare aspiring leaders with the needed adult social and emotional competencies in their future work, university leadership preparation programs should determine where in their preparation curriculum aspiring leaders might participate in a simulation in which they are provided situational and foundational data to analyze and then they are asked to create an appropriate one-year school or district adult social and emotional program that spotlights educator well-being. Upon completing this simulation, the aspiring leaders conduct a presentation that explains the purpose for and the principles used in the program, the actual program created and how it works, how the various included professional development sessions will be delivered, an action plan and budget for program implementation, and how the program will be monitored and evaluated.

Within the realm of teacher well-being, it is imperative that educational leaders be able to help teachers develop and grow their own social and emotional competencies, particularly in the areas of stress management and emotional resilience. Leadership programs should consider integrating the teaching methodology of reflective journaling throughout their preparation curriculum. Murillo-Llorente et al. (2021) note that reflective journaling facilitates the acquisition of professional and attitudinal values and skills by asking students to reflect on their lived experiences and feelings that may otherwise be hidden. Through the integration of specific and purposeful reflective activities throughout the semester (e.g., before a unit of study, during or after a course lecture or class discussion), aspiring leaders will learn to identify pertinent challenges and setbacks while identifying and developing strategies for overcoming them (University of Minnesota, n. d.). If aspiring leaders have had this role modeled for them in their preparation program, they will be comfortable role modeling this with teachers, so as to help them with their well-being.

While the Committee for Children (n.d.) shares that social and emotional learning is integral to creating a trauma-informed learning environment for children, this statement also holds true for adults. On a foundational level, there are many resulting practical implications for

educational leaders when it comes to supporting the emotional safety and mental well-being of teachers, especially in light of the responsibilities they were and continue to be burdened with as a result of the pandemic. Panlilio and Tirrell-Corbin (2021), suggest that teachers have experienced levels of both primary and secondary trauma that have taken an emotional toll on them, causing them to report emotional exhaustion, discouragement, insomnia, sadness, and worry, all likely contributors to early teacher retirements, resignations, and continued absence challenges, thereby resulting in a teacher crisis across the nation.

Considering the evolving body of research regarding the trauma induced by the pandemic and the resulting number of mental well-being considerations (anxiety, depression, risk of suicide), it behooves administrators to be, at a minimum knowledgeable, about trauma informed leadership for the benefit of teachers because, as previously noted in research done by Marzano (2003) and Hattie (2009), they yield the greatest influence on student achievement. Prioritizing trauma informed leadership practices in educational leadership programs is a logical place to begin such important efforts. It is clear that colleges and universities are beginning to recognize the need for a focus on trauma informed leadership in preparatory programs as there are fully accredited higher educational institutions that offer a master's degree in trauma informed (education) leadership or trauma informed practice, including Dominican University (IL), North Central College (IL), Concordia University (MN), Spring Arbor University (Michigan), and Columbia College (SC). Additionally, there is an increasing number of higher education institutions that are integrating this coursework as a part of their established educational leadership programs, such as the University of St. Thomas (MN), University of Iowa (IA), and the University of Illinois (IL). This is an important movement because educational leadership programs teach leaders to be system thinkers, and due to the prevalence of trauma that continues to infiltrate our educational institutions, integrating trauma-informed theory and practical application into educational leadership preparation programs offers the greatest chance of leading the field in a pursuit to understand the connections between body, mind, and behavior as it relates to trauma. In turn, with this understanding, educational leaders are better equipped to create a school culture wherein they understand how to construct systems that support teachers, individually and as a community, through purposeful and ongoing professional development that serves to increase their resilience and equip them to help students through a trauma informed lens, ultimately nurturing a paradigm that serves as a critical element in student achievement.

### **Conclusion**

While teaching has always been a high stress job, it became even more so with the onset of the COVID-19 pandemic and its mandates that altered so many personal and professional systems for teachers. In March of 2020, career-long teachers who were used to working in a very social setting suddenly found themselves forced to teach in isolation from their homes using means and methods of technology that they may have never before used. These system changes simultaneously impacted both the working and social environments for teachers and they were catalysts that threatened teacher well-being (Pagan-Castano et al., 2021). During the following 2020-2021 school year, there was yet another new threatening catalyst for many when they were called upon to return to their former academic setting to provide face-to-face instruction for students while the world was still in its pandemic state.

Historically, university educational leadership preparation programs have focused on the development of managers and instructional leaders and as a result of what today's teachers have experienced due to the COVID-19 pandemic, these preparation programs must change. The pandemic changed the world and society and that means the work of aspiring educational leaders has also changed. As a result of this, university leadership preparation programs must examine their curriculums and thoughtfully determine where and how they can prepare aspiring administrators to become leaders and care-givers who can generate working environments for teachers in which their well-being is a priority and their social and emotional competencies are bolstered. To engage in this is to create a safe, strong, and progressive organization in which teacher well-being is the foundation for building a positive organizational morale that will have a powerful effect on student learning and achievement.

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# Educational Leaders' Perception of Their Ethical Preparedness on the Ohio River: A Cross-Case Analysis of Leaders in Two Appalachian Riparian School Districts

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## **Abstract**

*The purpose of this cross-case study is to explore educational leaders' understanding and practice of ethical preparedness in two riparian school districts located along the Ohio River in counties determined by the Appalachian Regional Commission to be at-risk and distressed. As a cross-case analysis study, this research was conducted in the Appalachian region of Southeast Ohio and includes two districts in that region. The approach uses qualitative approaches (observations, semi-structured in-depth interviews, follow up interviews) to collect data from the participants in the two cases. The six individuals that participated in our interviews were representative school leaders within two riverine Appalachian school districts, one distressed and the other transitional. Descriptions and thematic data are reported in the study. Implications for practice indicate school leaders have a responsibility to make ethical decisions that are grounded in their ethical preparedness to promote holistic equality within the education system.*

*Keywords:* decision making, economically disadvantaged, educational leadership, ethical preparedness, moral literacy, river communities

School leaders have a responsibility to make ethical decisions that are grounded in their knowledge and ability of ethics as a tool for moral judgment (Reid, 2021; Starratt, 2005; Waldman et al., 2020). In addition to being made with the dignity of students and stakeholders in mind, such decisions should also promote holistic equality within the education system (Poekert et al., 2022; Stefkovich & Begley, 2007). This is especially the case when working in a demographically diverse community. Educational leaders at all levels should be accountable and be open-minded to backgrounds and needs of their multicultural communities (Goryunova, 2021; Obiakor, 2021; Shapiro & Stefkovich, 2016).

Established national standards have long included language that speaks to the need for principals and other school leaders to be competent in moral and legal matters. Previously, the Educational Leadership Constituent Council (ELCC) standards (2011) required leaders have to the capacity to “evaluat[e] the potential moral and legal consequences of decision making in the school; and promot[e] social justice within the school to ensure that individual student needs inform all aspects of schooling.” Later, the National Educational Leadership Preparation (NELP) standards (2018) reflected this same notion, suggesting that school administrators be prepared to “promote the current and future success and well-being of each student and adult by applying the knowledge, skills, and commitments necessary to understand and demonstrate the capacity to advocate for ethical decisions. . . .” (p. 15).

According to the Ohio Poverty Report (Ohio Development Services Agency, 2020) eleven of the twelve counties that are identified as the poorest in Ohio are located in the Appalachian region of Southeast Ohio along the Ohio River. In Ohio generally, the poverty rate was down from 17.8% in 2017 to 13.9% in 2020 (still slightly higher than the national average of 13.1%). The poverty rates for school age children have consistently exceeded 20 percent (p. 4). The report also noted a higher poverty rate for Appalachian counties in Ohio, “17.0 percent of the people in Appalachian Ohio, a band of 32 counties stretching across the eastern and southern regions of the state, were poor; the poverty rate for the rest of Ohio averaged 14.0 percent (five-year averages)” (p. 1). In a report detailing the extent of poverty in the region, Schultz (2010) revealed a high school student, referred to as a whiz kid, from a “river community” who became a 21-year-old mother of three living in a van. Similarly, Vance’s memoir, *Hillbilly Elegy*, has painted a complex, controversial, and often critical portrait of working-class Appalachians in Ohio and Kentucky communities along the river (Colley, 2021; Harkins & McCarroll, 2019).

Such stories and images exemplify the various stereotypically narratives that lead to deficit thinking in education about students in the area. As well, these examples hint to the need for school leaders, as riverine and Appalachian community leaders, to be ethically prepared to make decisions that meet the student’s needs as individuals no matter what their economic status or state of living. The impact this has on how school leaders as well as other educators perceive their need to develop knowledge of ethical care. Moreover, it speaks to how educational leaders *practice* ethical care, especially within regions similar to Appalachian Ohio.

### **Purpose of Study**

The purpose of this study is to examine and explore educational leader’s understanding and practice of ethical preparedness in two riverine school districts located along the Ohio River in two Appalachian counties: one an *at-risk* and the other a *distressed* region. The importance of

developing essential knowledge and skill in terms of moral literacy—particularly ethical justice, care, and critique—cannot be over-emphasized in school districts that are situated in high needs counties (Lowery, 2020; Lowery, 2021; Lowery & Hess, 2022). Of particular concern is how ethical preparedness manifests (or does not manifest) in counties and districts with high percentages of students identified as having a lower socioeconomic status and counties serving riparian communities and households. Finally, the research seeks to contribute to existing literature on the need of ethical dilemma preparedness for leaders and specifically to provide evidence on the practice of ethical care by leaders in riverine districts. Therefore, our cross-case study considers how educational leaders in these communities understand and practice of ethical care.

Next the study aims to better understand the following:

Research Question 1: How do educational leaders in at-risk and distressed Appalachian riverine communities perceive and navigate ethical dilemmas, particularly in the context of resource allocation and student equity?

Research Question 2: What strategies and resources do educational leaders in high-need districts utilize to enhance their ethical preparedness and decision-making, and how do they address the gaps in these resources?

Research Question 3: How do educational leaders in economically challenged regions assess their own ethical preparedness, and what are the perceived gaps between their training and the ethical demands of their roles?

### **Ethical Preparedness**

Educational leaders do not have any written law or stipulated principle to guide their decision-making processes as they navigate the various ethical dilemmas that they confront in the course of their work in *the gray areas* of decision making. As a result, ethical preparedness raises questions about the need for ethical training for aspiring educational leaders and professional ethical develop for practitioners. At the core of ethical preparedness is the concept of moral literacy, which enables school leaders to make ethically sound decisions when confronted with dilemmas that lack clear right-or-wrong answers (Clifford, 2011; Jenlink, 2014).

For example, in economically disadvantaged districts, leaders must decide how to allocate limited resources fairly while also considering the needs of individual students. In these cases, leaders' ability to apply moral literacy—balancing care, justice, and systemic constraints—ensures that their decisions are ethically grounded and contextually relevant (Lowery & Hess, 2022). Therefore, moral literacy forms a foundation for ethical preparedness, particularly in high-need environments such as the Appalachian riverine communities in this study. Educators, then, need to better seek to understand the theory and practice of moral literacy as it pertains to ethical decision-making (Jenlink, 2014). The practical gap in the literature relating to moral literacy and its relation to ethical preparedness of leaders in high-need areas, for example economically challenged riparian communities (Lowery, 2021).

In addition, moving away from mandated or prescribed professional codes of conduct to a more holistic framework of care, justice, and critique for school leaders (Jenlink, 2014; Shapiro & Stefkovich, 2016; Starratt, 2005) emerges as a missing link for many preparation programs. Educational leaders' knowledge, understanding, and practice of ethical preparedness potentially

will inform efforts aimed at addressing ethical issues within educational leadership preparation programs (Lowery, 2020; Lowery, 2021). Education accrediting organizations, policy makers, and practicing educational leaders can begin to have a reflective reappraisal of how to align preparation for the ethical needs of individual students.

Each decision or non-decision—action or inaction—has far-reaching effects on the education and learning environment of students. Whether leaders are prepared, that is able to fulfill their moral responsibility as ethically prepared agents of care and justice in public school settings, is a question worth asking. However, what is most notable about this inquiry is how do leaders morally arrive at responses to ethical dilemmas? How do they operationalize their ethical frameworks? What are the processes employed by leaders to make ethically sound decisions?

### **Moral Literacy: Theory and Practice of Ethical Preparedness**

Dimensions of moral literacy serve as a framework for a moral and socially just model of ethical care (Jenlink, 2014). As such it enables educators to tackle a variety of ethical dilemmas, including conflicts, cultural and religious tensions, resource allocation, environmental concerns, and issues of justice and fairness within the school system (Arar & Saiti, 2022; Nucci & Ilten-Gee, 2021; Slee & Tait, 2022). Ethical care is about the individual, their uniqueness and dignity. Caring for the individual person with absolute attention to their uniqueness, dignity, and intrinsic values is relation based as in care and respect in relationships with others (Noddings, 2003).

Though it seems to stem from legal justice, an ethic of justice and care strays further from the notion of rights and laws to more fully encompass ideals of compassion and empathy for others (Capeheart & Milovanic, 2020; Killen & Rutland, 2022; Mirra & Garcia, 2023). Rather than enforcing rules and laws within the school system, ethical care seeks to balance power with attention, nurturing, and encouragement (Evans & Vaandering, 2022; Ryu et al., 2022). This suggests that the need of the individual student is central to a school leader’s praxis of ethical care. How then, do educators and educational leaders perceive their need to exercise ethical care in effectively performing their work? This is premised on literature that suggests a lack of ethics in teacher education (and in principal preparation) course work (Shapiro & Stefkovich, 2016; Stefkovich & Begley, 2007).

According to Vogel, “Leaders make decisions every day that impact the lives of others, making the act of leadership a moral issue” (p. 1). Particular to the effective performance of educators and school leaders within the education system is the *neglected dimension* (Starratt, 2005). The neglected dimension in education relates to “the cultivation of moral character of learning and teaching” (p. 399). The theoretical perspectives concerning these neglected dimensions (dispositions of moral literacy) serve “to reconcile and polarize incompatible viewpoints on the subject” (Leonard, 2007, p. 413).

### ***Moral Literacy***

Moral literacy is not merely the ability to distinguish between right and wrong; it also involves the capacity to recognize ethical dimensions in complex situations, interpret the implications of various decisions, and engage in reflective moral reasoning (Herman, 2007; Starratt, 2005). In the context of school leadership, moral literacy requires leaders to balance competing values, such

as equity versus efficiency or individual needs versus systemic constraints, when making decisions (Clifford, 2011; Lowery, 2020; Shapiro & Stefkovich, 2021). This capacity is crucial when navigating ethical dilemmas involving resource allocation, student equity, and fairness in disciplinary practices, all of which were central themes in this study.

Lacking moral literacy or having limited moral literacy does not make school leaders immoral but moral literacy serves as a framework to better understand schools as “moral thickets” and to address “complex, elusive, and inherently contestable moral issues within the educational setting, which is a given” (Leonard, 2007). Learning and teaching are moral activities (Pring, 2021; Starratt, 2005) and educational leaders should be prepared to address the ethical issues that characterize their work in schools. These issues include matters related to an ethics of justice and an ethics of care which involves reading one’s situations and decoding the data within that context to make morally appropriate choices that are sensitive to implicated parties (Lowery, 2020; Lowery, 2021).

### ***Ethical Dimensions in Decision-Making***

According to Starratt (2005), opposing ideological concepts range between “value-free education” to “moral obligation to address values in education” (p. 413). However, solutions to complex moral and ethical dilemmas that school leaders face daily within the context of school as a ‘moral thicket’ cannot be simplified into two possible options (Leonard, 2007; Shapiro & Stefkovich, 2021). Multiple options and variations on these options present themselves almost daily. More so, the importance of the moral and ethical dimension of effective educational leadership are beginning to gain increasing recognition among teachers, leaders, and accrediting organizations within the United States (Leonard, 2007, p. 414). Since entering the 21<sup>st</sup> century, scholars have recognized the need for educational leaders to be prepared for the inherent moral responsibility of their work (Leonard, 2007; Starratt, 2005).

## **Method**

### **Context**

Specifically, this case study focuses on the issue of ethical preparedness and the school leadership practice of moral literacy within two Appalachian school districts—one “distressed” and one “transitional”—within regions marked by riverine communities as economically challenged regions. Therefore, this study speaks to a targeted geographically disenfranchised area of Appalachia and seeks to examine the experiences of leadership in these districts as decision-makers facing economically disadvantaged and diverse situations. Using a qualitative research method of inquiry, this cross-case analysis collected data via in-depth interviews with participants from two riverine school districts along the Ohio River.

### **Sample**

This cross-case study was conducted in the Appalachian region of Southeast Ohio along the Ohio River. Cases were selected based using purposeful sampling to provide rich, in-depth data on the



phenomenon of ethical preparedness in economically disadvantaged school settings. The two districts chosen—one classified as *distressed* and the other as *transitional*—represent critical cases within the Appalachian region, providing valuable insights into the ethical dilemmas faced by leaders in similar high-need areas (Patton, 2015). Specifically, the study compares leader perspectives from these two districts, both located on the Ohio River, one with a population of 20.0% to 33.0% in poverty, the other categorized as a 15.9% - 19.9% poverty rate. According to the Appalachian Regional Commission, the wealthier is in a *transitional* county (to which we have assigned the pseudonym Mauriceville City Schools) and the second is in a *distressed* county (this district we refer to as Ellisville Local Schools).

The six individuals that participated in our interviews were school leaders within the identified riverine school districts. These participants were recruited using purposeful sampling to ensure that they were best suited to speak to the research questions. Participants included the superintendents of each district, a district director of curriculum from one district, and the principals of participating schools—one from one county, two from the other.

### **Instrument and Interviews**

The interviews for this study were conducted using a semi-structured protocol with open-ended questions, developed by the researchers (Patton, 2015). Interview locations were determined based on comfort and convenience for the participants. The length of interviews ranged between 50 to 90 minutes (an average of 70 minutes each). Participants requested to hold the interviews onsite, and audio recorded for the purpose of creating transcriptions for analysis.

### **Other Data Collection**

In addition to semi-structured interviews, the approaches we used for data collection included observations, archival data and documents, and follow up interviews (Patton, 2015; Yin, 2018). Supporting archived data were obtained from Ohio Department of Education and the Appalachian Regional Commission. Additional participants at each site shared documents with the interviewer, such as examples of principal memos and administrative meeting minutes (other documents were referenced but not shared due to confidentiality, such as notes to file and disciplinary memos). These data were used in developing the descriptive qualitative analysis of the cases and to provide a backdrop to the demographic profiles of the cases.

### **Data Analysis**

After transcribing the interviews verbatim, we conducted a thorough coding process using a combination of open coding and thematic analysis. Initial coding involved reviewing the transcripts for recurring words, phrases, and key concepts relevant to ethical preparedness, which were grouped into preliminary codes. We then refined these codes through axial coding, which allowed us to organize them into broader categories reflecting the dimensions of moral literacy, resource allocation, and decision-making. Themes such as “equity in resource distribution” and “balancing care and justice” emerged from these categories, which were used

to structure the findings (Saldaña, 2018). This process was iterative, involving multiple rounds of coding and constant comparison to ensure that the themes accurately represented the data.

### **Ethical Considerations**

Institutional Review Board (IRB) approval was obtained and informed consent was obtained. Participants were provided details of strategies to protect privacy and confidentiality and their willingness to participate in the interview was determined without any form of coercion. Participants had the freedom to opt out of the interview at any time as disclosed in the signed consent letter.

### **Trustworthiness**

To mitigate researcher bias and enhance trustworthiness, several strategies were employed. First, reflexivity was practiced throughout the study by maintaining a research journals where we documented potential biases and preconceptions regarding the ethical preparedness of school leaders in economically disadvantaged regions (Patton, 2015). Additionally, intercoder agreement was used to ensure the accuracy of the findings (Saldaña, 2018). Triangulation was achieved by using multiple sources of data, including interview transcripts, observations, and secondary data from the Ohio Department of Education (Yin, 2018). Peer debriefing was also employed, where colleagues familiar with qualitative research reviewed the coding process to identify any blind spots or biases that could have influenced the analysis (Marshall & Rossman, 2016).

### **Transferability**

According to both Stake (2006) and Yin (2018), case study is not a sample driven methodology. Instead, case study is intended to provide in-depth, context-rich understandings of particularity and typicality rather than broad generalizations. Therefore, although this cross-case study focuses on two specific districts in Ohio, the findings may hold transferability to other rural, economically disadvantaged regions facing similar challenges. The ethical dilemmas faced by school leaders in these Appalachian riverine communities—such as resource allocation and balancing student equity—are likely to resonate with educational leaders in other high-poverty regions. Therefore, our findings serve as insights for educational leaders in similarly situated rural districts.

## **Findings**

The findings from this study are based on a cross-case analysis of two Appalachian riverine school districts: Ellisville Local Schools and Mauriceville City Schools [pseudonyms]. The data collected provided insights into the ethical preparedness of the leaders of these districts as they navigated complex challenges in rural and economically disadvantaged districts. Through a detailed coding process and thematic analysis, several key themes emerged related to the moral literacy, decision-making, and ethical dilemmas faced by these leaders. The following case studies

present the findings from each district, focusing on how the personal and professional experiences of school leaders influence their ethical preparedness and the impact of their district's socio-economic context on their decision-making processes.

### **Case #1 – Ellisville Local Schools**

Ellisville Local is a rural school district classified as *Average Student Poverty and Very Small Student Population* (Ohio Department of Education, 2015). It is comprised of three buildings—an elementary, middle, and high school—with an enrollment of approximately 850 students. Demographically, the student population is 97% White and slightly less than 2% are Hispanic. The percentage of economically disadvantaged students is near 54% and just over 11% are identified as a student with disabilities. The district has a mobility rate of approximately 9%, the highest student group in this category being students with disabilities at close to 20% and the second highest being students classified as economically disadvantaged at nearly 13%.

During assessment period in which this investigation occurred, Ellisville Local's Performance Index (Ohio's Achievement component that tells how well students are doing on State Tests) is moderately higher than 70%, giving the district a "C" overall. Specifically, the district received a "D" in Progress and Gap Closing, which "shows how well schools are meeting the performance expectations for our most vulnerable populations of students in English language arts, math and graduation" (ODE, 2017). Ellisville received an "F" in Prepared for Success (measures college and career readiness). However, the district was rated with an "A" in K-3 Literacy, with 80% of students in kindergarten through 3<sup>rd</sup> grade moving to the state's "On Track" classification and only 20% remaining "Off Track." Their graduation rate was at 97% for students completing within 4 years. Operating expenses for Ellisville Local were valued at approximately \$8,500 per pupil. Of that amount an estimated \$5,500 went toward classroom instruction and \$3,000 was used on non-classroom expenditures.

### **Case #1 - School Leader Profiles**

Rachel Burns is a white female elementary school principal. She is a graduate of the nearby university. She brought with her fifteen years of experience in retail business before venturing into the field of education. With over ten years' experience in education, she holds the position of an elementary school K-4 principal. She taught first grade for five years and spent three years as a third-grade teacher.

Sam Orlando has over thirty years of experience in education, most of which has been in administrative positions. He is a graduate of the nearby university and a local native of Ellis County. He has fifteen years' experience as a high school principal in another district within the county. In addition, he was also an assistant principal in a high school in another river valley county. He now holds the position of the Superintendent for Ellisville Local Schools for the third year running.

Sanders Baker is a white male in his late forties, who has been in education for over twenty-three years. He is a graduate of a comprehensive public research university in a neighboring state with a certificate in counseling. He was a math teacher in another state at the junior high and high school level. His wealth of educational experiences includes teaching in a

special education program and serving as both an elementary and middle school principal. At present, he is the high school principal.

### ***Case #1 – Qualitative Findings***

In Ellisville Local Schools, the concept of ethical preparedness among school leaders was deeply intertwined with their personal and professional experiences within the community. The leaders demonstrated a strong commitment to ethical decision-making, primarily driven by a sense of responsibility toward their students and the broader community. However, the challenges posed by the district's economic constraints often tested their ethical frameworks.

The principal of the elementary school, Rachel Burns, emphasized the importance of maintaining the dignity of every student, regardless of their socioeconomic background. She frequently faced ethical dilemmas related to resource allocation, particularly in ensuring that students with fewer means received the same opportunities as their peers. Burns articulated a philosophy of ethical care that prioritized empathy and the intrinsic value of each student, reflecting a deep moral literacy rooted in the unique socio-economic landscape of the district.

Burns' commitment to ensuring that economically disadvantaged students received equal opportunities illustrates a clear application of moral literacy. Faced with limited resources, Burns consistently employed moral reasoning to navigate the tension between fairness and practicality. Her decision to prioritize certain resource allocations over others—ensuring that students with fewer means had access to essential academic supports—reflects an ability to balance the ethical values of equity, justice, and care in real-world decision-making.

Superintendent Sam Orlando shared similar sentiments, highlighting how the district's financial limitations forced him to make difficult choices that held significant ethical implications. His approach to ethical preparedness was heavily influenced by his long tenure in the district, which gave him a profound understanding of the community's needs. Orlando's decisions often revolved around balancing the immediate needs of students with the long-term sustainability of the district's educational programs. His leadership was marked by a careful consideration of the moral consequences of his decisions, particularly in situations where the best interests of students were not immediately clear.

Sanders Baker, the high school principal, faced ethical dilemmas related to student discipline and academic integrity. His approach to ethical preparedness was characterized by a commitment to fairness and consistency, ensuring that all students were treated equally, regardless of their background. Baker's decisions were often informed by his experiences as a teacher and administrator in different educational settings, which provided him with a broad perspective on the ethical challenges inherent in school leadership.

Overall, the qualitative findings from Ellisville Local Schools reveal a leadership team that is deeply committed to ethical preparedness, driven by a strong sense of moral responsibility to their students and community. However, the district's economic challenges often complicated their ability to implement ethically sound decisions, requiring them to constantly navigate the tension between idealism and practicality.

## **Case #2 – Mauriceville City Schools**

Mauriceville Schools is a small-town school district classified as *Low Student Poverty & Small Student Population* (Ohio Department of Education, 2015). It is comprised of six buildings—four elementary schools, one middle school, and one high school—with an enrollment of nearly 3,000 students. Demographically, the student population is 93% White, 2% Hispanic, 1% African American, and 1% Asian or Pacific Islander. The percentage of economically disadvantaged students is about 47% and 14% have been identified with a disability. The district’s mobility rate is 12%, the highest student group in this category being African American students at 22% and the second highest being students with disabilities at nearly 18%.

During assessment period in which this investigation occurred, Mauriceville City’s Performance Index (Ohio’s Achievement component that tells how well students are doing on State Tests) is slightly lower than 69%, giving the district a “D” overall. The district received a “D” in Progress and Prepared for Success. Mauriceville received an “F” in the category of Gap Closing. Also, the district received a “C” in K-3 Literacy, with approximately 28% of K-3 moving to “On Track” and 72% remaining “Off Track.” Their graduation rate was 82% for students completing within 4 years, giving the district a “D” for this indicator. Operating expenses for Ellisville Local were valued at approximately \$8,300 per pupil, approximately \$200 a student less than its counterpart in the study. An amount of \$5,500 went toward classroom instruction and \$2,800 allocated for non-classroom expenditures.

### ***Case #2 – School Leader Profiles***

Wes Hansom, Superintendent of Mauriceville City Schools, is a white male in his late forties. As an educator, he has over twenty-three years’ experience. For eleven years, Wes served as a high school special education teacher. In addition, his wealth of experience includes working as an assistant principal and athletic director in another Ohio River district. In Mauriceville City Schools, he was an assistant principal for two and a half years and a middle school principal for eight years. Presently, he has been the superintendent of Mauriceville for two years.

Jill Harley is the curriculum and technology director for Mauriceville. She has spent over three years in her present position. She is a doctoral graduate from the nearby university with eighteen years’ experience in education. For ten years Jill was a middle school teacher before moving into administration. As an administrator, she was an assistant principal at the middle school and also had her own elementary building for four years.

Stan Kingston has over twenty-three years of experience in education. He is a white male in his early fifties who initially spent two years in education as a physical education and health teacher. As well, Stan coached football before stepping out into the business world for seven years. He returned to education as an assistant principal and then principal at the elementary school. He has spent over seventeen years at the elementary level of education as a principal and still remains a principal because that is his passion.

### ***Case #2 - Qualitative Findings***

In Mauriceville City Schools, the approach to ethical preparedness among school leaders was shaped by the district's relatively better economic standing compared to Ellisville, yet still marked by significant challenges. The leaders in this district demonstrated a proactive stance toward ethical decision-making, driven by a combination of professional ethics and a strategic approach to resource management.

Superintendent Wes Hansom described his ethical preparedness as rooted in a commitment to equity and inclusivity, ensuring that all students had access to the resources they needed to succeed. His leadership philosophy was influenced by his background in special education, which heightened his awareness of the ethical implications of educational policies and practices. Hansom often grappled with the ethical dilemmas of allocating resources in a way that balanced the needs of the majority with the needs of marginalized groups. His decisions were guided by a deep understanding of the district's demographic diversity and a commitment to social justice.

Jill Harley, the curriculum and technology director, brought a unique perspective to the district's ethical preparedness, particularly in the context of technological integration. Harley's ethical decision-making was influenced by her understanding of the digital divide and the need to provide equitable access to technology for all students. She often faced ethical challenges related to the distribution of technological resources, particularly in ensuring that economically disadvantaged students were not left behind in the district's push toward digital education. Harley's approach to ethical preparedness was characterized by a focus on long-term equity, ensuring that all students had the tools they needed to thrive in an increasingly digital world.

Stan Kingston, the elementary school principal, highlighted the ethical challenges associated with maintaining a positive school culture in the face of economic disparities among students. His ethical preparedness was reflected in his commitment to creating an inclusive environment where every student felt valued and supported. Kingston often dealt with ethical dilemmas related to student behavior and discipline, particularly in ensuring that disciplinary actions were fair and did not disproportionately impact students from disadvantaged backgrounds. His leadership was marked by a strong focus on ethical care, with an emphasis on understanding the individual circumstances of each student.

The qualitative findings from Mauriceville City Schools illustrate a leadership team that is deeply engaged in ethical preparedness, with a strong focus on equity and inclusivity. The district's relatively better economic situation allowed for more strategic approaches to ethical decision-making, but the leaders were still confronted with significant ethical challenges that required careful consideration and a commitment to social justice.

## **Discussion**

The findings from the two case studies of Ellisville Local Schools and Mauriceville City Schools highlight the complexities and challenges faced by educational leaders in economically disadvantaged and transitional Appalachian regions. These challenges are deeply rooted in the socio-economic context of the districts and are compounded by the unique demands of leading schools in riverine communities. The ethical preparedness of school leaders in these contexts, as explored in this study, aligns with the broader literature on moral literacy and ethical decision-

making in educational leadership, but also reveals specific nuances that are critical for practitioners working in similar environments.

As proposed by Starratt (2005), developing moral literacy enables leaders to navigate complex ethical dilemmas in high-need environments. The findings show that leaders in both districts face significant ethical dilemmas related to resource allocation and student equity. For example, Rachel Burns, the elementary school principal at Ellisville, emphasized the challenge of ensuring equitable opportunities for students despite economic constraints. Burns' decisions reflect the application of moral literacy, where ethical care takes precedence over purely administrative concerns (Jenlink, 2014; Starratt, 2005). Similarly, Wes Hansom in Mauriceville highlighted the ethical implications of resource distribution, especially in terms of balancing the needs of the majority with those of marginalized groups. Hansom's focus on equity highlights the moral literacy framework's emphasis on justice and fairness (Noddings, 2003). These data illustrate how leaders perceive and negotiate these dilemmas.

School leaders in these districts employ various strategies to enhance their ethical preparedness, such as drawing on their personal and professional experiences, leveraging community resources, and focusing on long-term equity in decision-making. However, they also face gaps in resources that challenge their ability to implement ethical decisions effectively. This study shows that school leaders in riverine districts could benefit from more robust training grounded in a framework of moral literacy and ethical preparedness to better balance care, justice, and critique in their leadership (Starratt, 2005). For instance, Sam Orlando from Ellisville had to balance the immediate needs of students with long-term sustainability, often making decisions with limited resources.

Our findings suggest that leaders are acutely aware of the ethical demands of their roles and often feel that their preparation program curriculum did not fully equip them for the realities they face. Both Rachel Burns and Sanders Baker from Ellisville, for instance, reflect on the ethical complexities of their work and the need for more robust professional development for leaders in moral literacy and ethical decision-making. This observation addresses a need to do more exploration into how leaders assess their preparedness and the gaps they perceive in their training.

### **Moral Literacy for School Leaders**

The ethical challenges faced by the leaders in both districts underscore the importance of moral literacy (Jenlink, 2014) and the broader framework of ethical care, justice, and critique (Starratt, 2005). The leaders' decisions often required them to balance competing values, such as equity and efficiency, individual needs versus systemic constraints, and short-term versus long-term outcomes. These dilemmas align with the notion that educational leadership is inherently a moral activity (Leonard, 2007). For instance, the leaders in Ellisville and Mauriceville demonstrated varying degrees of moral literacy in how they approached resource allocation. Rachel Burns' emphasis on ensuring equitable opportunities for all students, despite economic constraints, showcases how moral literacy enabled her to prioritize student dignity (Lowery & Hess, 2022). Her decisions were guided by an ethic of care, but also by a moral literacy framework that helped her assess the broader implications of her actions.

By contrast, other leaders may have struggled with this balance, highlighting areas where more robust training in moral literacy could support ethical preparedness in future leadership development programs. In particular, the findings from Ellisville Local Schools reflect Starratt's (2005) long-standing assertion that the moral character of learning and teaching is often a neglected dimension in educational leadership. The economic challenges faced by the district exacerbated the ethical dilemmas encountered by the leaders, forcing them to engage their moral judgments to make difficult choices that frequently involved significant ethical considerations (Herman, 2007). This aligns with Shapiro & Stefkovich's (2016) call for educational leaders to be better prepared to address the ethical domains that characterize their work, particularly in high-need areas.

The leadership in Mauriceville City Schools, while operating in a relatively better economic context, still faced significant ethical challenges related to equity and inclusivity. Their experiences echo the findings of Noddings (2003), who emphasized the importance of caring relationships in ethical decision-making. The leaders in Mauriceville demonstrated a strong commitment to ethical care, particularly in ensuring that all students had access to the resources they needed to succeed, even when it required navigating complex resource allocation issues.

These findings also resonate with the Educational Leadership Constituent Council (ELCC) standards (2011) and the National Educational Leadership Preparation (NELP) standards, which emphasize the need for school leaders to be equipped to evaluate the moral and legal consequences of their decisions and to promote social justice within the school environment. The leaders in both districts demonstrated a clear understanding of these responsibilities, but their ability to fulfill them was often constrained by the socio-economic realities of their districts.

## **Recommendations for Educational Leadership Practitioners**

This study reinforces theories of moral literacy and relational ethics (Jenlink, 2014; Noddings, 2003; Shapiro & Stefkovich, 2016; Starratt, 2005), demonstrating their critical role in ethical decision-making for school leaders in high-need, economically disadvantaged regions. Based on the findings from this study, several recommendations can be made for practitioners of educational leadership, particularly those working in economically disadvantaged and transitional regions.

### ***Enhance Ethical Preparedness Training***

Educational leadership programs should place a stronger emphasis on ethical preparedness, particularly in the context of socio-economically disadvantaged regions. This includes providing leaders with the tools and frameworks needed to navigate the complex ethical dilemmas they will inevitably face. Training should go beyond theoretical knowledge and include practical, case-based learning that reflects the realities of leading in high-need areas.

### ***Promote Moral Literacy in Leadership Practices***

Leaders should be encouraged to develop and apply moral literacy in their decision-making processes. This involves recognizing the moral dimensions of everyday decisions and



understanding the impact of those decisions on students, staff, and the broader community. Educational leaders should be supported in developing the skills to balance care, justice, and critique in their leadership practices.

### ***Foster a Culture of Ethical Care***

Schools should foster a culture of ethical care that prioritizes the dignity and intrinsic value of every student. This includes ensuring that disciplinary practices are fair and equitable and that resource allocation decisions are made with a focus on promoting inclusivity and equity. Leaders should be trained to create and sustain caring relationships within their schools, which are crucial for ethical decision-making.

### ***Leverage Community and External Resources***

In economically disadvantaged areas, leaders should be proactive in seeking out and leveraging community and external resources to support their schools. This includes forming partnerships with local organizations, seeking grants, and advocating for additional funding from the state. Leaders should be trained in resource management and strategic planning to maximize the impact of the resources available to them.

### ***Continuous Professional Development***

Given the evolving nature of ethical challenges in education, continuous professional development should be a priority for school leaders. This includes staying informed about the latest research and best practices in ethical leadership, as well as participating in professional networks where they can share experiences and strategies with other leaders facing similar challenges.

### ***Develop Context-Specific Ethical Guidelines***

While national standards provide a useful framework, there is a need for context-specific ethical guidelines that reflect the unique challenges of leading schools in economically disadvantaged and transitional regions. Educational leaders should work collaboratively with their communities and stakeholders to develop these guidelines, ensuring that they are relevant and applicable to their specific context.

## **Conclusion**

In conclusion, the ethical preparedness of educational leaders in Appalachian riverine districts is a critical factor in their ability to navigate the complex challenges they face. By enhancing training in moral literacy, promoting a culture of ethical care, and providing continuous professional development, educational leadership programs can better equip leaders to fulfill their moral responsibilities and promote equity and justice within their school communities.



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