PREPARING SPECIAL EDUCATORS AND TEAM MEMBERS TO SUPPORT STUDENTS WITH SEVERE BEHAVIORS IN SCHOOLS

by

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The first project listed in this three-project dissertation has been published in the Handbook of Teaching and Learning Social Research Methods. Reference to or direct quotation of the book chapter shall include proper citation.

Tamara Ann Hoffer
November 16, 2023

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ABSTRACT

The critical nationwide teacher shortage (Billingsley et al., 2019), puts increasing pressure on educator preparation programs to train candidates in less time. Special education personnel are more likely to leave the field when they feel inadequately prepared for service (Mason-Williams et al., 2020), and are less likely to leave the field when they feel connected with schools that promote inclusion, multi-disciplinary teaming, and collective responsibility for all students (Billingsley et al., 2019). Educators perceive their training inadequate for supporting children who demonstrate disruptive and destructive behaviors in the classroom (Mason-Williams et al., 2020). Despite significant research for evidence-based methods for students with behavioral needs, implementation and sustainability of such practices has limited success in classrooms and school settings (Beam & Mueller, 2017). With the growing demands and responsibilities placed on teachers to educate students in inclusive environments, it is imperative that educator preparation programs address the research to practice gap to improve student outcomes and teacher self-efficacy in supporting students with special needs. Therefore, intentionality must be applied to online course design and educator preparation programs.

This body of work consists of three separate projects connected by intentionality. The notion of intentionality was first applied in the book chapter co-authored by the researcher (Nind, 2023), specifically to Garrison's (et al., 2001) Community of Inquiry theory of student engagement: intentionality of teaching presence, intentionality of cognitive presence, and intentionality of social presence in online qualitative research methods courses. In addition, two

phenomenological studies were conducted. The researcher aspired to give online learners and special educators a voice in what types of training they need, the inter-disciplinary support/s they need, and how online courses and programs could be designed and developed to prepare them for the complexity of teaching and supporting students with special needs. Intentional use of teaching pedagogies and appropriate coursework that explicitly teaches educators how to locate evidence-based practices and operationalize those practices in their classrooms can be useful for addressing the research to practice gap. Also, developing intentional communities of inquiry that include interdisciplinary coursework, activities, and real-world problem-solving projects can address behavior plan implementation fidelity across team members in schools.

This project can help preparation programs to understand what special educators need to support students with significant behaviors in schools. Taken together, the findings in this project can help preparation programs be more intentional with online course and program design that includes relevant content, learning activities, and developing communities of inquiry that will help candidates meet the complex demands of supporting students with special needs in schools.

Keywords: special education; intentionality; online teaching pedagogy; course design and organization; social presence; teaching presence; cognitive presence; evidence-based practices; interdisciplinary teams; behavior intervention plans; behavior intervention barriers

CHAPTER I

INTRODUCTION

Preparing special education candidates has become a daunting task for many higher education institutions, especially in online asynchronous delivery formats. Online education affords students the opportunity to earn their special education degrees while working full or part time, across geographical boundaries, and conveniently on their own time schedule. However, special education is a highly complex field and teacher candidates must provide evidence-based interventions and support to students with disabilities as soon as they begin teaching. Despite significant research for evidence-based methods for students with behavioral needs, implementation and sustainability of such practices has limited success in classrooms and school settings (Beam & Mueller, 2017). To provide evidence-based interventions, educators must know how to locate evidence-based practices, when and why to use them, and how to operationalize the research for classroom use. Also, educators' doubts about the effectiveness of evidence-based practices may be an underlying obstacle to implementation in school settings. With the growing demands and responsibilities placed on teachers to educate students in inclusive environments, it is imperative that educator preparation programs address the research to practice gap to improve student outcomes and teacher self-efficacy in supporting students with special needs.

This body of work consists of three separate but interconnected projects: 1) a book chapter about online qualitative teaching methods; 2) a qualitative study about students'

perceptions of teaching presence in online courses; and 3) a qualitative focus group study about special educators' perceived training and support needs to enact behavior intervention plans in their schools. Though each project was unique, intentionality was the thread that bound them together. Intentionality is the interdependent relationship between subject and object to construct meaning. This relationship is reciprocal and dynamic as learning occurs. Addressing the research to practice gap in education requires developing intentional communities of inquiry in online courses.

The notion of intentionality was first applied in the book chapter co-authored by the researcher (Nind, 2023), specifically through the lens of Garrison's (et al., 2001) Community of Inquiry theory of student engagement: intentionality of teaching presence, intentionality of cognitive presence, and intentionality of social presence in online qualitative research methods courses. Next, intentionality of teaching presence behaviors to facilitate cognitive and social presence among learners was explored for the qualitative study of online students' perceptions of course design elements, teaching pedagogies, and supports students found effective for achieving their learning goals. Intentional use of specific teaching pedagogies like incorporating real-world problem-based group activities, engage students cognitively through communities of inquiry to prepare them for the complex problems teachers face in the field. Finally, identifying training and supports needed to implement behavior interventions in schools and prepare future special educators was explored in the focus group study. Intentionality of appropriate coursework that explicitly teaches educators how to locate evidence-based practices and operationalize those practices in their classrooms can be useful addressing the research to practice gap. Also, intentional interdisciplinary coursework, activities, and real-world problem-solving projects can address behavior plan implementation fidelity across school team members. Special educators

are required by law to work in multi-disciplinary teams, thus intentionality toward building engaging online learning communities is critical for preparing special educators to meet the demands of supporting students with significant behaviors in schools.

The researcher chose phenomenological methodology to empower online learners and special educators to share the types of training they need, the inter-disciplinary support/s they need, and how online courses and programs could be designed and developed to prepare them for the complexities of teaching and supporting students with significant behavioral needs. A brief description of each project follows.

Program of Research

Reflection on Co-authored Book Chapter

The researcher teamed up with two of her professors to write a book chapter in the Handbook of Teaching and Learning Social Research Methods (Nind, 2023) about intentionality when teaching qualitative research methods online. Specifically, intentional engagement of teacher presence, cognitive presence, and social presence as defined in the Community of Inquiry theory. The project provided a two-fold opportunity for the researcher to: 1) work with established and esteemed qualitative research faculty and learn how they used intentionality to develop instructional activities for qualitative methods courses and 2) learn how to operationalize qualitative research methods for online instructional delivery utilizing the Community of Inquiry framework (CoI). The Community of Inquiry establishes student engagement through teacher presence, cognitive presence, and social presence. The researcher's primary role in this project was to help research, design, and describe online learning pedagogies and activities that engage all three presences. Evidence-based teaching methods such as modeling, explicit teaching, scaffolding, and stepstool strategies (Darby & Lang, 2019) were strategically incorporated.

What was unique about this project is that the researcher was enrolled in both faculty's courses during the writing of the book chapter. This afforded the researcher to 'live the experience' as an online student learning qualitative research methods for the first time, then provide real-time feedback to the faculty regarding design elements, online delivery of content, and stepstool integration (i.e., technology supports). This experience was profound in how it helped the researcher to walk in students' shoes while acquiring and applying complex qualitative research skills. Furthermore, this project helped the researcher to think intentionally about how to bridge the research to practice gap that plagues special educators (Westling, 2010), who must operationalize research and use evidence-based practices when supporting students with behavioral support needs in classrooms (Burns & Ysseldyke, 2009). Research into the Community of Inquiry Theory and using intentionality to engage qualitative research students in online courses directly influenced the research conducted in the other two studies in this body of work.

Design, Teach, and Support Students in Online Courses: Key Elements Students Perceive Most Effective for Achieving Their Learning Goals

The researcher conducted this study to understand more fully how to design online courses to better prepare special education teachers for the complex demands and responsibilities required in the field. This qualitative phenomenological study helped the researcher to identify and understand student perceptions of pedagogies, course design elements, and supports in online asynchronous or blended learning courses that optimized their learning and assisted them in achieving course learning objectives. The Community of Inquiry (CoI) framework provided the lens for this study, with specific attention to teaching presence as the facilitator of the cognitive and social presences (Garrison et al, 2001). Research shows that the quality of online

courses is significantly affected by teaching presence (Gurley, 2018). Online educators must ensure that learning outcomes include "critical thinkers who have learned to learn" and provide opportunities beyond information dissemination that foster critical thinking skills through communities of inquiry (Garrison, 2007). Intentionality toward enacting teaching presence indicators that effectively facilitate cognitive and social engagement in online programs are critical to prepare future special educators to solve the complex problems faced in schools today.

Interdisciplinary Teaming to Support Behavior Plan Implementation

Perceptions of North Dakota Special Education Personnel

This focus group study was conducted to determine the supports and training needs of special educators in North Dakota, Minnesota, and Montana for working with students who demonstrate significant behaviors in schools. The researcher's primary focus was special educators' perceived barriers to behavior intervention plan implementation. The purpose of this study was to help the researcher to identify critical areas of training needed in special educator preparation programs for supporting students with significant behaviors. Also, the researcher hoped to gain insight into the interdisciplinary supports from administrators, general educators, mental and behavior experts, and related services personnel that special educators need to support their students who demonstrate significant behaviors in schools and to successfully implement evidence-based behavior interventions based on data driven functional behavior assessments.

These findings suggest that behavior intervention failure in schools may be a result of low fidelity of implementation (inconsistency among team members) from inadequate team member training, lack of collaboration, lack of belief in inclusion, and lack of belief in evidence-based practices. For school teams to support students who demonstrate significant behaviors,

addressing the barriers shared by participants are critical. Building multi-disciplinary school teams should begin at the university level in educator, school leadership, mental health, and school related professional preparation programs.

Summary

Through this body of work, the researcher sought to understand special educators' perceptions of what training they need and types of inter-disciplinary support/s they need. Also, since most special education graduate programs are online, the researcher sought to identify design elements, teaching pedagogies, and supports to optimize learning in online environments. Prior research shows that educators, special educators, and school administrators perceive their preparation programs inadequate for preparing them for the real demands of supporting students with significant behavioral needs in schools (Hagaman & Casey, 2017). Training must emphasize evidence-based practices and be designed and taught with intentionality, in an engaging community of inquiry. The research in this body of work can help educator, special educator, and school leadership preparation programs to design online courses and programs with intentionality to better prepare future educators and leaders for the complexities of teaching and supporting students with significant behavioral needs in schools.

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CHAPTER II
CO-AUTHORED BOOK CHAPTER REFLECTION

Author Note

The book chapter reflection is submitted in partial fulfillment for the PhD in Teaching and Leadership at the University of North Dakota. Questions or comments on this project reflection should be directed to Tamara Hoffer. Email: tamara.waldal@und.edu, Phone: 701-690-8602.

Book Chapter Reflection

The researcher teamed up with two of her professors to author a book chapter titled, *Using Intentionality to Frame How We Teach Research Methods Online* in the *Handbook of Teaching and Learning Social Research Methods* (Nind, 2023; pp 216-227). The project provided a two-fold opportunity for the researcher to: 1) work with established and esteemed qualitative research faculty and learn from them how they develop instructional activities for qualitative methods courses and 2) learn how to operationalize these methods for online instructional delivery utilizing the Community of Inquiry framework (CoI). The CoI establishes engagement through teacher presence, cognitive presence, and social presence. The researcher's primary role in this project was to help design and describe online learning activities. Teaching methods such as modeling, explicit teaching, scaffolding, and stepstool strategies (Darby & Lang, 2019) were incorporated.

What was unique about this project is that the researcher was enrolled in both faculty's courses during the writing of the book chapter. This afforded the researcher to 'live the

experience' as an online student learning qualitative research methods for the first time, then provide real-time feedback to the faculty regarding design elements, online delivery of content, and stepstool integration (i.e., technology supports). This experience was profound in how it helped the researcher to walk in students' shoes while acquiring and applying complex qualitative research skills. Furthermore, this project helped the researcher to think critically about how to bridge the research to practice gap that plagues educators (Westling, 2010), and especially special educators who must operationalize and use evidence-based practices when supporting students with special needs in classrooms (Burns & Ysseldyke, 2009).

Methods

The writing team, consisting of the researcher, Dr. Cheryl Hunter, and Dr. Joshua Hunter, met several times over Zoom to collaborate on this project. The team first determined the scope and sequence of the project based on the book editor's requirements. Then, each team member worked on components of the piece. For example, Dr. Cheryl Hunter and Dr. Joshua Hunter explored the concept of intentionality as it related to teaching qualitative research methods and engagement of the three presences in the Community of Inquiry framework. Specifically, intentionality toward cognitive presence, intentionality toward social presence, and intentionality toward teaching presence. (Nind, 2023) The researcher investigated the Community of Inquiry framework and operationalized online learning activities for qualitative research based on the three areas of presence. The team met several times between September 2021 to May 2022 to develop the chapter.

The chapter introduced and interrogated the concept of intentionality in practice. Intentionality in qualitative research can be described as, "radical interdependence of subject and object." (Crotty, 1998). The Community of Inquiry (CoI) model establishes that students

construct meaning in online and blended courses through teaching presence, social presence, and cognitive presence and that deeper and more meaningful learning occurs at the intersection of all three (Akyol & Garrison, 2011). Thus, critical to intentionality is ensuring the online environment is structured to facilitate and nurture relationships between its members as they develop over time throughout the course. Next, the chapter explained what each of the presences looked like in practice and included examples of learning activities specific to online qualitative methods courses. Each activity was explicitly described with how they were implemented in courses and how the activities connected to qualitative skills taught in traditional face to face courses. Some online learning activities included in the chapter were: weekly module overview videos, screencast modeling videos with instructors explaining qualitative research processes, build an interactive qualitative methodology web-module, small group research coaching sessions, and 'stepstool' tools that include video demonstrations of pre-requisite skills to access the curriculum (Nind, 2023). The final product was submitted to the editor in May 2022 after all revisions were made.

Reflection on Implications for Practice

As stated above**,** the project provided a two-fold opportunity for the researcher. Having the opportunity to work with established and esteemed qualitative research faculty and learn from them how they develop instructional activities for qualitative methods courses was invaluable. As an instructor who prepares pre-service special educators, this project was particularly helpful for the researcher to develop ideas for bridging the research to practice gap (Westling, 2010). Special educators must operationalize and use evidence-based practices when supporting students with special needs in classrooms (Burns & Ysseldyke, 2009). Despite a large body of research for students with special needs, educators and special educators reported the did

not know how to find or disseminate research, much less operationalize evidence-based practices with their students in classrooms (Beam & Mueller, 2017). Educator preparation programs at Institutes of Higher Learning are responsible for addressing this issue, specifically for supporting students who demonstrate severe behaviors in schools.

Special Education Research to Practice

To address the research to practice gap, the researcher incorporated specific research protocols in her online courses. As a result of this book chapter project, two ideas to address the research to practice gap have been developed: 1) a 'Teaching Lab' activity has been incorporated into the Advanced Methods of Emotional Behavior Disorders course and 2) a Special Education (SPED) Research to Practice Lab has been created for Scholarly Projects.

Teaching Lab

The Teaching Lab is a three-part activity spanning three weeks during a given semester. During the first week, students conduct research on an evidence-based teaching strategy that is proven to work with students with Emotional Behavior Disorders. They complete an annotated bibliography and then design a lesson plan following a template. During week two, they teach the lesson to their students/s and complete a guided reflection on their teaching. Then, they present their strategy and reflection on Voice Thread. During week three, students view and respond to their peers' strategies stating whether they would use the strategy and how they might incorporate it into their own teaching. Each step of this process includes a brief instructional video tutorial with explicit instructions, my expectations, and instructional guidelines for how to interact in the Voice Thread discussion board to elicit fruitful discussion. This assignment has been well received by students and gives them a process to facilitate research to practice.

SPED Research to Practice Lab

The researcher advises Master of Education and Science candidates in the Special Education Program at the University of North Dakota on their capstone scholarly projects. To address the issue of general educators' lack of knowledge of special education and how to support students with special needs (Wagner, 2006), the researcher established a Special Education Research to Practice Lab comprised of asynchronous professional development modules. These modules are created as research projects by advisees to help general educators learn more about specific topics related to supporting students with special needs in classrooms and schools. Each asynchronous module must be 45-60 minutes in length and provide evidence-based practices that the general educator can implement in their classrooms upon completion of the module. Modules are kept on Blackboard and can be viewed by other students in the program. Also, candidates can use their modules as professional development in their own school districts.

Prior to creating the four to six video modules, candidates must complete a literature review on the topic they will be presenting. The researcher meets with each candidate to discuss the process, coaches them on how to find resources, and provides support through the writing process. Next, the researcher meets with candidates and provides a template for the module, develops the story board for each video based on the research candidates conducted, and coaches them on how to produce the videos. Each module must include a guided note-taker for participants that summarizes key points in the module that can be implemented in general education classrooms. Finally, candidates reflect on the project and their plan for continued learning in special education.

To date, six students have completed online asynchronous projects for the lab. The researcher hopes to build a library of professional development that can be used in the future by general educators across the state and nation. The SPED Research to Practice Lab can address two issues with one project. First, it trains special educators on how to research special education topics and operationalize the research for practice. Next, it provides professional development for general educators on how to support students with special needs in their classrooms. Future ideas for the SPED Research to Practice Lab include inter-disciplinary modules around school teaming that include collaboration between disciplines to support students with special needs in schools.

Conclusion

The opportunity to work with established and esteemed qualitative research faculty and learn from them, especially through the lens of student, researcher, and instructor, was invaluable for learning. This project directly influenced the research conducted in the two studies in this paper.

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CHAPTER III

DESIGN, TEACH, AND SUPPORT STUDENTS IN ONLINE COURSES

KEY ELEMENTS STUDENTS PERCEIVE MOST EFFECTIVE FOR ACHIEVING THEIR LEARNING GOALS

Author Note

This article is submitted in partial fulfillment for the PhD in Teaching and Leadership at the University of North Dakota. Questions or comments on this article should be directed to Tamara Hoffer. Email: tamara.waldal@und.edu, Phone: 701-690-8602.

Abstract

The Covid-19 pandemic forced universities to shift many of their face-to-face courses to online delivery formats and it appears that online course offerings remain strong three years later. Despite the convenience, decreased cost, and flexibility of virtual learning, designing robust courses that are rigorous and that blend the best of both face-to-face and online pedagogies remain a challenge for instructors. Research is limited on student perceptions of pedagogies, strategies, and supports that should be included in online courses to produce desired learning outcomes. The purpose of this study is to identify online teaching pedagogies, design elements, and supports students participating in online graduate courses at the University of North Dakota (UND) perceive to be most effective for achieving their learning goals. The Community of Inquiry (Community of Inquiry) framework provides the basis for this study and includes three elements that are important for optimal student engagement in their learning in

online courses: cognitive presence, social presence, and teaching presence (Garrison et al., 2001). In addition, since students may be missing pre-requisite skills, background knowledge, or can have a variety of technology experiences, the researcher sought to identify supports or "step stools" that help students access the online curriculum (Darby & Lang, 2019).

Keywords: online teaching pedagogy; course design and organization; social presence; teaching presence; cognitive presence; blended online learning

Design, Teach, and Support Students in Online Courses: Key Elements Students Perceive Most Effective for Achieving Their Learning Goals

Although online enrollments continue to rise, 'lack of interaction' was the main reason given for dissatisfaction and low persistence among online learners (Dailey-Hebert, 2018). Interactivity, or communication modes in online courses, is defined in three ways: 1) communication between student and student, 2) between student and instructor, and 3) between student and content (Darby & Lang, 2019). Research shows interactivity to be the most critical component to engage students in online courses (Steele & Holbeck, 2018). In online asynchronous courses, students may feel more isolated from their instructors than in face-to-face courses (Darby & Lang, 2019), and blending all three modes of engagement has been shown to improve the overall learning experience (Dailey-Hebert, 2018). Student engagement plays a significant role in student persistence and learning (Boston et al., 2009), but research is limited on which evidence-based teaching pedagogies, course design elements, and supports students perceive to be valuable for achieving course learning outcomes in online or blended learning environments.

There is a significant body of online student engagement research that has been conducted over the past twenty-five years based on the Community of Inquiry (Community of

Inquiry) framework. The Community of Inquiry framework includes three categories of engagement: social presence, teaching presence, and cognitive presence in online learning environments (Anderson et al., 2001; Garrison et al., 2001). Most studies have been quantitative surveys, mixed-methods surveys that include open-ended questions, artifact analyses of course communication/discussion transcripts, or meta-analyses of Community of Inquiry studies. Garrison (2007) believes that both quantitative and qualitative research studies would contribute to refining the Community of Inquiry and its existing elements.

The present study seeks to understand the online teaching pedagogies, design elements, and supports students participating in online graduate courses at the University of North Dakota (UND) in the College of Education and Human Development perceive to be most effective for achieving their learning goals. Further, the researcher hopes to understand how participants utilize these elements to engage in courses cognitively, socially, and with the instructor for their optimal learning using the Community of Inquiry (Community of Inquiry) framework (Garrison et al., 2001). Student perceptions of these elements are important because persistence in online courses depends on student engagement (Darby & Lang, 2019; Boston et al., 2009). Understanding how students in online courses engage with their instructors, content, and with one another can assist professors and instructional designers in fostering dynamic learning communities that optimize learner engagement and outcomes.

Literature Review

Designing an online course is much like building a house, with pedagogy being the foundation, frame, and structure. Course design elements provide the interior and exterior design and flow of the structure to make living and moving in the home aesthetically pleasing, practical, and user-friendly. Finally, supports are like the additional tools, implements, and appliances that

help the inhabitants access or maintain the many parts of the home such as ladders, foot stools, additional lamps, and you-tube instructional videos. Research states that pedagogy, or the art of teaching includes: knowing the content; knowing the learner culturally, developmentally and relationally; representing the content in ways that make it comprehensible to a variety of learners; engaging and challenging them in explorations of the subject matter; anticipating what will be difficult or easy and providing supports or challenging activities; and managing an environment that promotes learning for all students (Darling-Hammond et al., 2007). Course design and organization elements are implemented to facilitate pedagogy and curriculum. Finally, 'step stools' are resources and tools to support students who may be missing pre-requisite skills, background knowledge, or can have a variety of technology experiences to help them access the course curriculum (Darby & Lang, 2019). Pedagogy, course design elements, and supports ought to work together to facilitate learner engagement to achieve course learning outcomes.

Engagement is synonymous with interactivity which is defined in three ways: 1) interactivity between the student and the instructor, 2) interactivity between the student and the course content, and 3) interactivity between the student and their peers (Dailey-Hebert, 2018). Research shows that increased student engagement in all three relationships results in persistence in online courses (Darby & Lang, 2019). Maximizing all three interactions in online courses improves student motivation, satisfaction, achievement, and makes a significant impact on the overall student learning experience (Rios et al., 2018). Understanding all three relationships more fully and how to foster student engagement through pedagogy, course design elements, and supports can aid in the development of online courses that help learners achieve their learning goals and optimize their learning experiences.

Theoretical Framework

The Community of Inquiry (Community of Inquiry) framework, created and developed by Garrison (et al., 2001), provides the lens for the present study. The Community of Inquiry encompasses three inter-related relationships of engagement that are important for optimal student learning in online courses: teaching presence, social presence, and cognitive presence (Steele & Holbeck, 2018; Holbeck & Hartman, 2018). Teaching presence is defined as the "design of the educational experience and facilitation of the learning within the course." Cognitive presence is defined as "constructing meaning through reflection of course content, drawing new and creative connections with course material, or opening themselves to new ideas and ways of understanding." Social presence is defined as "emotional expression, open communication and group cohesion." The community of inquiry model is a departure from traditional distance learning in that it fosters community rather than individualized and independent learning (Garrison, et al., 2001). Facilitating student engagement in all three relationships in online courses requires intentionality and deliberate attention to each (Darby & Lang, 2019).

Teaching Presence

The quality of online learning needs to improve, specifically teaching presence since it influences students' learning quality (Lee & Recker, 2021), engagement behaviors (Zhang et al., 2016), learning satisfaction (Khalid & Quick, 2016), and performance (Arbaugh, 2005). It links curriculum content and learners. As online learning continues to grow (Allen & Seaman, 2016), it is critical that faculty develop pedagogical skills, practices, and methodologies that are equivalent in quality to traditional face-to-face courses. Garrison (et al., 2010) found that students perceived teaching behaviors and pedagogical approaches were the most influential for

achieving learning goals in online courses. In fact, teaching presence is essential to constructing innovative or challenging learning activities that facilitate learners' cognitive and social engagement (Garrison 2007). Garrison (et al., 2001) described teaching presence as "the design, facilitation, and direction of cognitive and social processes for the purpose of realizing personally meaningful and educationally worthwhile learning outcomes." This suggests that teaching presence is foundational to enacting the other two presences (cognitive and social) in online learning environments. In fact, according to a meta-analysis of Community of Inquiry presences on learning outcomes, teaching presence had the largest effect on actual learning (Martin et al., 2022). Teaching presence in the Community of Inquiry framework encompasses three categories: design and organization, facilitating discourse, and direct instruction (Garrison et al., 2001).

Design and Organization. Instructors must design and organize the course by selecting learning activities, assignments, and assessments in meaningful ways so that teacher presence extends beyond live sessions and written communications (Budhai & Williams, 2016). Example indicators of design and organization (DO) include setting curriculum, designing methods, establishing time parameters, utilizing medium effectively, and establishing netiquette (Anderson et al., 2001). According to Wang and Liu (2020), students perceived design and organization elements that include clear communication of course goals, clarity of assignments and due dates, clear expectations, and feedback to be most important for achieving their learning outcomes. Also, instructor's organization played a key role in helping new students adapt to online learning (Wang & Liu, 2020).

Facilitating Discourse. Facilitating discourse is about creating a dynamic learning community in which students interact with one another in meaningful ways to extend learning

(Budhai & Williams, 2016). Anderson (et al., 2001) asserts that facilitating discourse is "critical to maintain interest, motivation, and engagement of students in active learning." For effective discourse to occur, the teacher must be regularly engaged with students in supporting the development of the learning community. Example indicators of facilitating discourse include identifying areas of agreement/disagreement; seeking to reach consensus/understanding; encouraging, acknowledging, or reinforcing student contributions; setting climate for learning; drawing in participants and prompting discussion; and assessing the efficacy of the process. Facilitating discourse should not be confused with e-moderating or facilitation of learning environments where no expertise is needed. Rather, the authors argue that many fields of knowledge in higher education require active participation of subject matter experts who are critical to learners' constructing knowledge (Anderson et al., 2001).

Direct Instruction. Direct instruction is described as, "teachers provide intellectual and scholarly leadership and share their subject matter knowledge with students" (Anderson et al., 2001). Example indicators of direct instruction include presenting content/questions, focusing the discussion on specific issues, summarizing discussions, confirming understanding through assessment and explanatory feedback, addressing misconceptions, injecting knowledge from diverse sources, and responding to technical concerns (Garrison et al., 2001). Current research has expanded the original Community of Inquiry framework of teaching presence to include two more distinct and critical categories: assessment (Shea et al., 2010) and technological support (Wang et al., 2021).

Measuring Teacher Presence. Early research in online courses analyzed only discussion thread posts or announcements to assess teaching presence, yet there are many other tasks and responsibilities beyond discussion boards that occur in online courses that may be considered

part of teaching presence. Shea (et al., 2010) conducted the first comprehensive study using the Community of Inquiry framework to measure teaching presence across thousands of online instructional activities. The authors expanded teaching presence to include teaching duties often required of online instructors: organizational, procedural, administrative tasks, and decision-making norms. The researchers used quantitative analysis to measure teaching presence in two identical sections of a fully online course taught by two instructors during the fall of 2007. The instructors had very different teaching styles for engaging learners. Results revealed that most of the instructional effort occurs outside of discussion boards, indicating that teaching presence may be drastically underrepresented in early online research. The study also confirmed a fourth teaching presence category: assessment. Assessment of student contributions, assignments, and how the learning community is progressing toward achieving learning outcomes are included in this category (Shea et al., 2010). Current research by Wang (et al., 2021) expanded the Community of Inquiry framework further and proposed a fifth category: technological support. Technology has changed drastically since the inception of the Community of Inquiry framework more than twenty years ago and online learners often look to their instructors for technology support.

At present, there is not consensus among researchers for how to measure teaching presence in online learning environments, so Wang (et al., 2021) constructed a five-dimension framework to measure teaching presence based on the Community of Inquiry (Community of Inquiry) theory. The researchers' measurement tool included five-dimensions of teaching presence: 1) design and organization; 2) discourse facilitation; 3) direct instruction; 4) assessment; and 5) technological support. Researchers surveyed 408 college students who had online learning experience and conducted item analysis, exploratory factor analysis, and

confirmatory factor analysis to test the new five-dimension model as a reliable measurement tool and to explore the internal relationships among the five factors. Study results confirmed the model as a reliable tool for measuring teacher presence competencies in online courses. Also, study participants perceived all five factors to be important for achieving learning outcomes (Wang et al., 2021). This is significant because online instructors and Institutes of Higher Learning (IHEs) can use the five-dimension framework to evaluate and improve teacher presence in online learning environments.

Improving Teacher Presence. Research suggests that faculty perceive online teaching to be more demanding and time consuming than face-to-face courses (Bollinger & Waslik, 2009), therefore instructional strategies to foster student engagement should be intentional and a smart investment of the instructor's time and energy. In a self-study conducted by an instructor of two sections of a course, Priesman (2014) found that feedback and guidance were more important to students than seeing the instructor. Similarly, Mupinga's (et al., 2006) research contradicts teaching presence literature and argues that students choose online courses because they allow for independent learning, are convenient, flexible, anonymous, and immediately accessible. This suggests that students do not need or may not want a strong personal connection with the instructor. As a result, Priesman (2014) recommended that a better use of instructor effort would be to invest time on course design, organization, facilitation, and increased formative feedback to students.

Consensus in the literature points to indicators of teaching presence that are most important to students include clarity of course requirements, communicating course expectations, course organization, responsiveness to students' needs, timeliness of information, and instructor feedback (Wang et al., 2021). Additionally, effective feedback to learners may be more

important in the online environment where students are more self-guided. Effective student feedback should verify students' understanding of concepts and facilitate reflection (Garrison et al., 2010). Giving feedback in online courses can be more time intensive than regular classroom feedback (Wang et al., 2021). However, without effective feedback learning becomes more difficult and student performance may suffer. Quality feedback from instructors can positively impact engagement of all three presences in the Community of Inquiry model (Steele & Holbeck, 2018).

Effects of Teaching Presence on Cognitive and Social Presences. There is discrepancy in the literature of how teaching presence affects learners' cognitive and social presences. Garrison et al. (2010) found that students' perception of teaching presence played a key role in establishing a community of inquiry and significantly affected their cognitive and social presence, however another study found higher teaching presence conversely affected students' participation, interaction, and cognitive presence (Zhao & Sullivan, 2017). Wang and Liu (2020) explored the effects of teaching presence on students' interactions and collaborative knowledge construction in three courses taught by the same instructor. Results showed that higher frequency of design and organization and facilitating discourse correlated with increased social interactions. Other research shows that teaching presence significantly predicts cognitive presence (Kozan & Richardson, 2014) and that cognitive presence may depend on instructors' teaching presence skills and students' abilities to interact with others (Shea & Bidjerano, 2009). Research over the past twenty-five years shows that teaching presence plays a dominating role in the Community of Inquiry framework and exerts the most influence over the other two relationships (Yu & Li, 2022).

Cognitive Presence

Educators must ensure that learning outcomes include "critical thinkers who have learned to learn" (Garrison et al., 2001). In fact, Akyol and Garrison (2008) found significant relationships between cognitive presence and perceived learning, and cognitive presence and satisfaction. Compared to teaching presence, research showed that cognitive presence had more influence on students' perceived learning (Martin et al., 2022). Cognitive presence is defined as "the extent to which learners are able to construct and confirm meaning through sustained reflection and discourse in a critical community of inquiry" (Garrison et al., 2001). Online instructors must provide opportunities beyond information dissemination and foster critical thinking skills through communities of inquiry.

The Community of Inquiry cognitive presence is based on Dewey's four phases of critical inquiry: triggering event, exploration, integration, and resolution (Garrison et al., 2001). Online learners apply the critical inquiry cycle in problem-based learning activities and discussions. Research indicates that in online courses, learners rarely move beyond the exploration phase (Garrison, 2007). Collaborative problem solving and application focused discussions and activities help learners move through the cycle to the final resolution phase (Fiock, 2020). Also, designing discussion topics that address real-life cases in a reflective and attractive way for students is effective for facilitating cognitive and social engagement. (Wang & Liu, 2020; Redmond, 2014).

Actual and Perceived Learning. Cognitive presence requires learners to construct knowledge, so a need exists to examine the relationships of the three presences of Community of Inquiry and how they impact actual and perceived learning in online courses. Martin (et al., 2022) conducted a meta-analysis that examined 19 empirical studies on the Community of Inquiry Presences and their correlations with learning outcomes that include actual learning,

perceived learning, and satisfaction. Actual learning is defined as a change in knowledge confirmed by rigorous measurement of learning, perceived learning as students' self-report of knowledge gained, and satisfaction describes fulfillment of one's expectations or needs. Results of the meta-analysis conducted by Martin (et al., 2022) showed that teaching presence had the largest effect on actual learning in online and blended courses. Cognitive presence had the largest effect on perceived learning in online and blended courses, while teaching and social presences had only a medium effect. Cognitive and teaching presences had a large effect on satisfaction and social presence had only a medium effect in online and blended courses (Martin et al., 2022). In sum, teaching presence appears to be the most significant factor for facilitating and promoting cognitive and social engagement in online and blended courses.

Social Presence

According to research, social presence had the largest effect on student persistence in online courses (Boston et al., 2009), yet attrition rates for online programs are as much as six to seven times higher than campus-based programs (Patterson & McFadden, 2009). Successful online programs dedicate attention to student satisfaction (Dziuban et al., 2015) of which social presence is a contributing factor (Martin et al, 2022). According to Vygotsky's *zone of proximal development theory*, "learning awakens a variety of internal developmental processes that are able to operate only when the (student) is interacting with people in his environment and in cooperation with his peers." In other words, students alone can solve problems, but when working in collaboration with peers and instructors, they reach their full cognitive potential through deeper learning derived from their social nature and need to communicate with others (Darby & Lang, 2019). Collaborative learning theory, through the interaction of learners with instructors and fellow learners, supports that learning occurs as "learners exercise, test and

improve their knowledge through discussion, dialogue, collaboration and information sharing" (Hadjerrouit, 2007).

Social presence is defined as, "the ability of learners to project themselves (i.e., their personal characteristics) socially and emotionally, thereby representing themselves as 'real' people in a community of inquiry" (Garrison et al., 2001). Research shows that when students feel they are perceived as 'real people' behind the computer, it positively impacts their satisfaction (Richardson & Swan, 2003). Students who feel like insiders and part of a community are more likely to achieve success, therefore feelings of community and social presence are strongly connected (Hostetter & Busch, 2006).

There are three broad categories of social presence in the Community of Inquiry: affective expression, open communication, and group cohesion (Garrison, 2007). Affective expression allows for self-projection and expressing emotions with one another in a safe learning environment. Open communication includes establishing a learning climate that allows for risk-free expression of its members. Group cohesion is when group identity and collaboration are developing. Affective expression and open communication are critical to form a sense of community (Richardson & Swan, 2003). Group cohesion requires that instructors provide clear goals, productive time together, directions, guidance, and facilitation (Pawan et al., 2003). Social presence requires more than social interaction; the group must evolve to intersect with cognitive presence (Garrison, 2007).

Purposeful Social Presence. Garrison (2007) argues that social presence must shift from personal to purposeful relationships in a community of inquiry. Social presence and cognitive presence should intersect in that social presence is more than social bonding. Learning activities must be more than information acquisition and aim for group cohesion. This requires

collaborative assignments that foster respect, open communication around a common goal or purpose, and where students benefit from the perspectives of others, such as solving problems together (Darby & Lang, 2019). Teaching presence facilitates purposeful social presence.

Conclusion

Designing and facilitating online courses requires more than understanding the three relationships of Community of Inquiry and their effects on student learning. Online educators must ensure that learning outcomes include "critical thinkers who have learned to learn" and provide opportunities beyond information dissemination that foster critical thinking skills through communities of inquiry (Garrison, 2007). Research shows that teaching presence significantly predicts cognitive presence (Kozan & Richardson, 2014) and that social presence mediates between teaching and cognitive presence (Shea & Bidjerano, 2009). The quality of online courses is significantly affected by teaching presence and how educators are prepared to teach in online environments impacts the quality of their instruction (Gurley, 2018). Online educators must identify and execute design elements, teaching pedagogies, and provide supports to facilitate engaging online learning environments.

Most studies conducted using the Community of Inquiry framework have included surveys and analysis of course artifacts, communications, and discussion threads. Conducting qualitative research that analyzes students' perceptions of the effectiveness of each of the categories of the Community of Inquiry framework in achieving their learning goals may help online instructors to understand the most important components to focus their attention and effort when designing and teaching online courses (Shea et al., 2010; Garrison, 2007). The present study may contribute to the growing body of research of the Community of Inquiry framework as it relates to student engagement in online courses. Specifically for exploring practices within

teaching presence categories that facilitate cognitive presence and social presence in online courses in the College of Education and Human Development at the University of North Dakota. Understanding how students experience each of these relationships in their online courses can assist Institutes of Higher Education (IHEs), instructional designers, and instructors in developing and facilitating more engaging learning experiences. More engaging student experiences may result in higher enrollments and improved retention rates in online programs.

Methods and Methodology

The purpose of this phenomenological qualitative study is to identify online teaching design elements, pedagogies, and supports students participating in online courses at the University of North Dakota (UND) perceive to be most effective for achieving the learning goals established in the course syllabi. Data will be collected using semi-structured participant interviews to answer the following research questions.

1) What teaching pedagogies and course design elements implemented by instructors in an online environment do students perceive optimal for their learning and achieving course learning outcomes?
2) Why do students perceive these components to be optimal for their learning?
3) How and why do students decide which course delivery method (i.e., face-to-face, synchronous online, or asynchronous) they will participate?

Participants

Students from the University of North Dakota (UND) were solicited for the study. Email invitations were sent to students enrolled in undergraduate and graduate online, hybrid, or HyFlex courses in the College of Education. These emails were sent to department chairs' administrative assistants to disseminate to students in their programs. The researcher sought to

obtain a minimum of 5 and no more than 10 participants for the study to glean in-depth inquiry and deep analysis of the phenomenon being studied (Bhattacharya, 2017). The email included the purpose of the study, the research questions, and the general format of how the study would be conducted. Of the emails sent, twelve indicated interest by completing a pre-screening survey. Only five of these candidates responded to the follow-up email to schedule an interview and participate in the study.

Study Methods

The following methods were approved by the University of North Dakota's Internal Review Board (IRB0005244) and were used for this study. Individual interviews were scheduled and conducted by the researcher with each of the five confirmed participants over a private Zoom meeting. Interviews lasted 45-60 minutes each and were conducted in March, April, and September 2023. All interviews were recorded using Zoom technology. During the individual interviews, the researcher asked the participants three primary interview questions with follow-up probing questions based on the participants' answers to encourage depth or to provide clarity (Bhattacharya, 2017). First, participants were asked to give a 'grand tour' of how an optimal online course might be structured (design elements) and what types of learning activities an instructor might include (teaching pedagogies). The investigator then probed participants on why and how those elements helped them to learn. Next, participants were asked to share their experiences with specific design elements and teaching pedagogies instructors used in courses that were helpful for achieving their learning goals. Then, participants were asked how and why they chose to participate in their courses asynchronously, synchronously, or face-to-face when given choices or opportunities for each type of participation mode. Finally, participants were asked what they would like instructors to know when designing and teaching online courses. The

semi-structured format of open-ended types of questions allowed participants to lead the investigator through their unique experiences with online learning and provide more clarity and depth of understanding of the phenomena being studied (Maxwell, 2012). The interviewer took notes during the interview.

All interviews were transcribed using Zoom transcription and the investigator edited transcripts by comparing them while listening to and watching the recorded sessions. All responses by participants were coded to remove any identifying information, including any specific course titles or instructors' names stated during interviews. Once all interviews had been transcribed, the data was coded using the Five-Factor of Teaching Presence Scale (Wang et al., 2021) that was based on the Community of Inquiry framework (Garrison et al., 2001). Additional codes were added in relation so the research questions, specifically preferences for course participation modality (asynchronous, synchronous, face to face) and step stool tools that help students to access curriculum. A few other codes emerged within the five dimensions as transcripts were compared. Atlas AI software was used to conduct a word frequency analysis and code document analysis to identify themes.

Validity

Validity of data collection techniques used in this study included prolonged engagement and member checking. Prolonged engagement was used to confirm integrity or trustworthiness of data collected in the study. Prolonged engagement is defined as length of time spent in the field is adequate to the study's purposes (Lincoln & Guba, 1985). To demonstrate prolonged engagement, the researcher conducted 45–60-minute recorded interviews with each participant. The goal of prolonged engagement was to build rapport and trust between the researcher and participants to encourage rich and elaborate explanations of their answers to interview questions.

This technique can help to deepen understanding of the participants' shared lived experiences of the phenomenon.

Member checking helps to establish credibility of data collected and is defined as continuous formal or informal consultation and sharing of data with participants to confirm researcher interpretations (Lincoln & Guba, 1985). This technique was demonstrated during initial interviews with frequent interview tactics like, "Let me see if I understand what you are saying" then the interviewer will restate what she heard the participant say, or by summarizing what the participant says to ensure that she understands it correctly. All interviews were digital video recorded using UND Zoom technology, serving as a secondary validity check (verbatim interviews). Member checking ensures that participants' interview data are recorded accurately and establishes the credibility of the data collected.

When considering validity of analysis, two techniques were used so that peers can assess the adequacy of the study (Whittemore et al., 2001). First, an audit trail was maintained using Word and Excel documents of all coding and themes. A reflexivity journal with written notes, thoughts, and theories by the investigator was kept (Lincoln & Guba, 1985).

Results

The investigator utilized word frequency and document coding to analyze data collected during interviews. The purpose of the word frequency report was to ascertain related word themes across all participants. To obtain the essence of what was being said, the investigator found word frequency analysis helpful for viewing the larger picture and identifying overarching themes. Next, conducting a code document analysis helped to identify design elements, teaching pedagogy, and supports that were most important based on code frequency across all participants. Then, comparing the word groups and code frequencies helped to construct

meaning for how the categories within each element of teaching presence are situated in the context of the word themes. Finally, specific design elements, teaching pedagogies, and supports that participants perceived most helpful in achieving their learning goals were identified.

Word Frequency Analysis

Three overarching themes emerged from the related word frequency analysis: 1) consistency and structure within the course design and facilitation; 2) communication from the instructor; and 3) opportunities to connect with peers and instructors to achieve course learning goals. Word variations and words with similar meanings were placed into categories. Themes were then determined based on how the words were situated in conversations within the interviews. Some sub-themes emerged within the larger three categories. A table showing the word categories, related words within the categories, and the frequency of words used in the transcripts are shown in Table 1.

The consistency and structure word group fit within the Design and Organization (DO) dimension of the Five-Dimensional Teaching Presence Scale (Wang et al., 2021). During all five interviews, consistency and structure of online courses was mentioned most frequently by participants for achieving learning goals. Words grouped in this category occurred 218 times across all five interviews. Three sub-categories emerged within the category that include: 1) weekly/schedule/assignments, 105 occurrences; 2) structure/organized/consistency/intentional, 51 occurrences; and 3) choice/flexibility, 31 occurrences. Based on related word frequency, participants prefer a weekly assignment structure that is organized, intentional, and consistent. In addition, they want flexibility and choices in their online courses.

The instructor communication word group also fits within the Design and Organization dimension of the scale. Related words grouped in this category occurred 150 times. Participants

Table 1

Frequency of Words Occurring in Study Transcripts Across Three Themes

Word Group Frequency Table		
Consistency-Structure	**Communication**	**Connect-Interact**
simple-4	communicate-3	connect-8
assignment-16	communicating-1	connecting-2
assignments-16	communication-10	connection-3
schedule-5	communications-1	connections-2
schedules-2	communicative-1	conversation-5
structure-10	communicator-1	conversations-5
structured-9	direction-6	interacting-1
structures-2	expect-4	interaction-5
structuring-1	expectation-5	interactions-1
week-56	expectations-5	interactive-1
weekly-9	expected-2	engaged-3
inconsistent-1	explaining-2	engagement-3
organization-2	explanation-3	participant-1
organized-2	feedback-23	participants-1
dates-4	outreach-5	participate-14
consistency-8	support-23	participated-1
consistent-8	supported-2	participating-3
consistently-2	supports-19	participation-1
intentional-7	video-20	relationships-2
flexibility-12	videos-10	respond-5
choice-11	overviews-2	together-8
choose-8	instruction-1	group-21
relevant-8	instructions-1	groups-12
resources-5		sharing-5
tools-10		peers-5
		collaborate-5
		collaborated-1
		collaboration-7
		collaborations-1
		collaborative-4
Total Frequency: 218 occurrences (0.97%)	Total Frequency: 150 occurrences (0.67%)	Total Frequency: 136 occurrences (0.61%)

Note. This table shows the total word count for each word as it occurs in the study transcripts. Themes are listed as headings in the table. Related words are grouped into columns. Totals are tabulated at the bottom of each column and include overall percentage of total words in transcripts.

valued instructor communication as very important, specifically in three ways: 1) to support them in meeting course expectations and learning outcomes, 49 occurrences; 2) provide constructive and timely feedback on assignments and activities, 23 occurrences; and 3) clearly communicate expectations/directions/instructions on assignments and activities, 22 occurrences. These results can be interpreted as participants perceive instructors who clearly communicate expectations, provide adequate instruction on concepts, give clear directions, provide thorough explanation of assignments, and give timely and constructive feedback help students to achieve their learning goals.

The connect and interact word group fits within the Discourse Facilitation (DF) dimension of the scale. Related word frequency in this group occurred 136 times. These results can be interpreted as participants want to connect and collaborate in their online courses. First, they want to build relationships with peers and instructors through opportunities to engage, participate, and interact with one another in their online courses (72 occurrences). They want to collaborate with their peers to construct meaning from one another's perspectives through group activities, discussions, and projects (66 occurrences).

Code-Document Analysis

Results from Code-Document Analysis showed the six coding categories in rank order from highest frequency to lowest frequency: 1) Design and Organization (DO) 58 occurrences; 2) Discourse Facilitation (DF) 34 occurrences; 3) Synchronous or Asynchronous Preference (SOAP) 30 occurrences; 4) Technology Supports (TS) 27 occurrences; 5) Direct Instruction (DI) 26 occurrences; 6) Step Stools to Access Curriculum (SS) 14 occurrences; and 7) Assessment (AS) 4 occurrences. All five participants' transcripts included codes from the first five coding categories. Four of the five participants' transcripts had codes in the sixth category, Step Stools

to Access Curriculum (SS). Only two of the five participants' transcripts included codes in the seventh category, Assessment (AS).

Design and Organization (DO)

Given the results of the word frequency analysis, it is not surprising that design and organization was mentioned most frequently by all participants as being important for achieving their learning goals. Within the design and organization category, four specific indicators were mentioned as important to all participants in the following rank order. First, teachers providing instructions on participating in course activities, such as strategies to fulfill assignments successfully, was deemed most important to participants for successfully meeting course learning expectations. Equally important to participants was teachers communicating an accurate schedule of learning activities to guide students to keep pace with each other. Both indicators occurred 20 times each with all five participants contributing statements. Next, teachers communicating essential course outcomes was considered important to all participants with 18 code occurrences. Finally, online courses having structure and consistency, specifically with how course content is organized and administered, was cited as important to all participants with 11 code occurrences. All participants stated similar experiences of a particular design element that was helpful for achieving their learning goals in the design and organization category, "I like it when they add a little video just saying this is what we're going to be doing this week. This is what we're discussing. Giving a little bit of information on like the resources we're using."

Discourse Facilitation (DF)

Second in order of importance to participants was discourse facilitation, with 34 total occurrences. This is the teacher's ability to encourage and facilitate a community of inquiry by providing opportunities for purposeful interaction with one another to benefit from the

perceptions of others. Within the discourse facilitation category, two specific indicators were coded in all five transcripts. First, teacher facilitated students' discussions was cited as most important, with 12 occurrences. All participants stated that much of their learning activities have occurred in discussion board formats. Participants stated that while they understood the importance of discussions for constructing knowledge, all participants stated that discussion boards had significant limitations for learning. Some limitations participants shared included: a) instructors did not actively participate in the discussions which resulted in minimal discussion or low-level discourse between students; b) many students did not post until last minute which resulted in fewer posts to respond to or limited time for discourse; c) participants may only go into the discussion board once per week and not check back, resulting in no back and forth discussion; and d) instructors gave little guidance for expectations, leaving participants to figure it out.

The second discourse facilitation indicator, teacher evaluated the effectiveness of the learning process, occurred 9 times with all five participants contributing. These coded statements specific to discussion board activities and their appropriate use. For example, participants stated that in some of their courses, discussion boards may not have been appropriate media or activity and were perceived to have little or no value to expected learning outcomes. One participant expanded on that thought, "Discussion boards seemed like just an added assignment…and I thought did we need this? Or, you know I wished I would have gotten more out of it." Participants did have some experiences with synchronous discussions over Zoom technology that included break-out room discussions, which were perceived positively and were preferred for engaging in discourse.

Synchronous and Asynchronous Preference (SOAP)

Participants' preference to attend synchronously or asynchronously was an added category for the purpose of answering the research questions. Specifically, the investigator wanted to understand what factors influenced participants' choices of participation modes. Codes from this category occurred 30 times with contributions from all five participants. First, 'making connections benefit from other perceptions' was the indicator of most importance for all five participants in this category, with 15 occurrences. Participants stated that they appreciated synchronous opportunities to connect and collaborate with their peers and instructors in online courses because they valued the perceptions of others when working through activities, discussions, or case studies. However, participants added that synchronous opportunities should be flexible in that they accommodate working schedules and are not mandatory.

Technological Supports (TS)

Ranking fourth in importance was the technology supports category, with codes in this category occurring 27 times. One indicator in this category stood out as important for all participants. First, teacher used different medias to promote different learning styles occurred 16 times with all five participants contributing. Participants valued when online instructors presented instructional materials both in writing and with a corresponding explanation video to accommodate both visual and auditory learners. One participant shared, "Some classes I have will just post an activity, and maybe leave like a written description, and like for me, I'm very much a verbal communicator, so that can be a bit of challenging. So what helps is if there's like a 10 to 15 min video explaining what it's looking for." Another echoed this sentiment, "Lots of written direction isn't as helpful as someone explaining an assignment, talking through

expectations, or looking to an example together. These are more useful than a nine-point assignment list."

Direct Instruction (DI)

Fifth in order of importance was direct instruction with a frequency of 26 occurrences and all five participants contributing. This category includes teaching pedagogy defined as methods, strategies, and designing learning activities to achieve learner outcomes. Within the direct instruction category, three indicators emerged. However, 'teacher provided helpful explanations' was the only indicator that all five participants stated as important. Participants stated that when instructors clearly explained assignments or activities it helped them to meet instructors' expectations. For example, "There was an assessment that we had to do, and the instructor broke down into simple chunks. And I really like that, so like you could see the whole assessment. But then, week by week, we're covering things that we need to focus on. I didn't get freaked out about oh, my gosh, I have this huge assessment. But just the way that it was approached was nice and is something that I'm using now. Just chunking it up was helpful." Furthermore, participants valued when instructors provided explanation of how the assignment or activity would be used in their careers. As one participant shared, "A professor continually pulled in relevant examples, either from his or her experience, or recent things that had been in the news in the last few years. That was the driving point of conversations. So, it's just nice when people can take it beyond what is in the text and show how it is applicable in the real world."

Step Stools to Access Curriculum (SS)

Four of the five participants' transcripts had codes in the sixth category, Step Stools to Access Curriculum (SS). This code category was directly related to one of the research questions for this study, therefore it is relevant. Participants stated that they appreciated video instruction

of how to use specific tools within courses, especially when they did not know how to use a specific tool or software. One participant stated, “The instructor, actually walking you through how to do the exercise and even showing you multiple ways, you could do it is a beneficial tool.” Also, novices in grad school may need a bit more clarity and guidance on process rather than ambiguous advice. One participant shared, “A piece of advice we often get is that we should write every day. It's a great piece of advice. But when given no suggestions, or structuring strategies from an instructor, it's hard to do it on your own.” Step stools are valuable for providing instruction on lagging or missing pre-requisite skills or background knowledge so that students can access curriculum within online courses.

Assessment (AS)

Lastly, codes in the assessment category only occurred four times and only two participants made statements related to assessment. However, the statements made in this category were related to feedback. Participants shared that they want feedback to affirm or disaffirm their understanding of concepts and constructive feedback to help them correct their mistakes or misconceptions. Furthermore, they want timely feedback, even if it is just quick acknowledgement of what they are doing correctly and a brief suggestion for improvement.

Conclusion

Three overarching themes emerged from the related word frequency analysis: 1) consistency and structure within the course design and facilitation; 2) communication from the instructor; and 3) opportunities to connect with peers and instructors to achieve course learning goals. Results from Code-Document Analysis showed seven coding categories in rank order from highest frequency to lowest frequency: 1) Design and Organization (DO) 58 occurrences; 2) Discourse Facilitation (DF) 34 occurrences; 3) Synchronous or Asynchronous Preference

(SOAP) 30 occurrences; 4) Technology Supports (TS) 27 occurrences; 5) Direct Instruction (DI) 26 occurrences; 6) Step Stools to Access Curriculum (SS) 14 occurrences; and 7) Assessment (AS) 4 occurrences. All five participants' transcripts included codes from the first five coding categories. Four of the five participants' transcripts had codes in the sixth category, Step Stools to Access Curriculum (SS). Only two of the five participants' transcripts included codes in the seventh category, Assessment (AS). Comparing the word groups and teaching presence indicators can help to identify specific design elements, teaching pedagogies, and supports participants perceived most helpful in achieving their learning goals.

The consistency and structure word group category and the communication word group are represented within the Design and Organization (DO) dimension of the Five-Dimensional Teaching Presence Scale (Wang et al., 2021). When comparing word and code frequencies for this category, words associated with structure and consistency occurred most frequently. However, communication was most important to participants when assigning codes. This is likely because words were removed from context for the word frequency analysis, whereas in Wang's (et al., 2021) five dimensions of teaching presence scale, words related to communication (i.e., communicate, explain, instructions, directions) were included in the design and organization code indicators. Therefore, results of this comparison could be interpreted as participants perceived 1) consistent structure, organization, and facilitation of the course; 2) instructors' explicit communication of learning outcomes, schedules, expectations, and resources in a variety of media formats to accommodate diverse learning styles; 3) intentional, organized, and guided synchronous and asynchronous opportunities to connect and collaborate with peers and instructors throughout the course; 4) explicit explanation of expectations for assignments and activities that include relevant and real world experiences related to their fields of study; and 5)

constructive feedback and appropriate resources to support them in meeting instructor expectations and course requirements to be most helpful for achieving their learning goals. In addition, participants wanted flexibility and choices in their online courses, specifically to accommodate work schedules and interests relating to their field of study.

Discussion

Online educators must ensure that learning outcomes include "critical thinkers who have learned to learn" and provide opportunities beyond information dissemination that foster critical thinking skills through communities of inquiry (Garrison, 2007). Research shows that quality of online courses is significantly affected by teaching presence (Gurley, 2018). Most studies conducted using the Community of Inquiry framework have included surveys and analysis of course artifacts, communications, and discussion threads. To date, the researcher could not find any studies conducted using Wang's (et al., 2021) Five-Dimensional Teaching Presence Scale, nor any studies that used the scale as a framework for coding a qualitative study. The purpose of this study was to extend previous literature by gathering information from online students to determine the design elements, teaching pedagogies, and supports they found most helpful for achieving their learning goals. Conducting qualitative research that analyzes students' perceptions of the effectiveness of each of the categories of the Community of Inquiry framework in achieving their learning goals may help online instructors to understand the most important components to focus their attention and effort when designing and teaching online courses (Shea et al, 2010; Garrison, 2007).

Research suggests that faculty perceive online teaching to be more demanding and time consuming than face-to-face courses (Bollinger & Waslik, 2009), therefore instructional strategies to foster student engagement should be intentional (Darby & Lang, 2019) and a smart

investment of the instructor's time and energy. The results of the present study revealed five key areas where educators could best spend their time and effort based on students' perceptions of importance: 1) consistent structure, organization, and facilitation of the course; 2) instructors' explicit communication of learning outcomes, schedules, expectations, and resources in a variety of media formats to accommodate diverse learning styles; 3) intentional, organized, and guided synchronous and asynchronous opportunities to connect and collaborate with peers and instructors throughout the course; 4) explicit explanation of expectations for assignments and activities that include relevant and real world experiences related to their fields of study; and 5) constructive feedback and appropriate resources to support them in meeting instructor expectations and course requirements to be most helpful for achieving their learning goals. In addition, participants wanted flexibility and choices in their online courses, specifically to accommodate work schedules and interests relating to their field of study.

Consistent Structure, Organization, and Facilitation of Courses

Most important to participants in the present study were courses that had consistent structure, organization, and facilitation. Consensus in the literature supports these findings that clarity of course requirements, communicating course expectations, course organization, responsiveness to students' needs, timeliness of information, and instructor feedback are most important to students (Wang & Liu, 2020). Wang and Liu (2020) also stated that instructors' course organization significantly helps new students to adapt to online learning. Participants in the present study preferred courses that were organized and intentionally laid out, were simple to navigate, and that had a consistent structure of both course design and content facilitation. For example, all participants stated they preferred a weekly format of lesson content released on a

specific day with assignments and activities due on specific weekdays. This format helped them to manage their time and balance the demands of graduate school with work.

Instructor Communication

Participants in the present study were very adamant that instructors explicitly communicate learning outcomes, schedules, expectations, and resources in a variety of media formats to accommodate diverse learning styles. Conversely, participants found ambiguous expectations and instructions very frustrating and obstacles to achieving their learning goals. Research confirms that teaching presence has a significant impact on cognitive presence (Akyol & Garrison, 2008) and actual learning (Martin et al., 2022). Wang (et al., 2021) found that students' perception of teaching presence to be a key factor for influencing student engagement in online courses and that students' perceived teaching presence more negatively while teachers perceived their presence more positively. To remediate this, Wang (et al., 2021) suggested that online educators introduce the course, clarify the value behind the coursework, design communication rules from the onset according to students' needs, and provide technological support to enhance students' online learning experiences. More specifically, all participants in the present study stated that weekly lesson and course overview videos in addition to written directions provided by instructors were helpful in clarifying expectations and course requirements.

Synchronous and Asynchronous Opportunities to Connect and Collaborate

Participants in this study perceived intentional, organized, and guided synchronous and asynchronous opportunities to connect and collaborate with peers and instructors important to achieving their learning goals. In other words, they want a combination of asynchronous and synchronous learning opportunities to connect with one another, that are intentional, relevant to

course learning outcomes, and synchronous sessions that a not mandatory. Students who feel like insiders in a community are more likely to achieve success (Hostetter & Busch, 2006). Also, when students feel they are perceived as real people, it positively impacts their satisfaction (Richardson & Swan, 2003; Hostetter & Busch, 2006). However, Garrison (2007) argued that social presence must be more than personal interaction, rather purposeful relationships that intersect with cognitive presence must be developed. Well-designed collaborative assignments that foster respect, open communication, that are problem or case-based, and where students benefit from the perspectives of others help learners to think critically and move from the exploration to resolution phase of critical inquiry (Garrison, 2007; Fiock, 2020). Also, designing discussion activities that address real-life cases in a reflective and attractive way for students is effective for facilitating cognitive and social engagement. (Wang & Liu, 2020; Redmond, 2014; Liu & Yang, 2014).

Students can reach their full cognitive potential through deeper learning derived when working in collaboration with peers and instructors (Darby & Lang, 2019). Rios (et al, 2018) found that maximizing student engagement can be achieved by faculty implementing practical and manageable approaches in course design and technology, especially when technology in the course design promotes real-life interactions and active engagement. Blau and Barak (2012) found that students were more likely to participate in audio chat activities and are more comfortable with text-only mediums when discussing sensitive topics. Borup (et al., 2012) found that it helped students to develop a connection with the instructor when video-based communication was used. Rios (et al, 2018) suggest Flipgrid and VoiceThread for video discussions. Synchronous opportunities can include a variety of mediums, such as mobile group chat technologies. The Remind application, created specifically for education, can connect

students to the online classroom and foster intrinsic enjoyment of their learning experience (Chairprasurt & Esichaikul, 2013).

Explicit Explanation of Expectations for Assignments and Activities

Participants in this study perceived explicit explanation of assignment and activities were important for achieving their learning goals. Furthermore, those explanations that include relevant and real-world experiences related to their fields of study were particularly helpful. Similarly, Wang (et al., 2021) found that students' perceptions of teaching presence, specifically teacher instructions were abstract or not always clear. To remediate this, Wang (et al., 2021) suggested that instructors provide direct instruction with informative demonstrations and valuable analogies. All participants in the present study stated that weekly lesson and course overview videos, assignment explanation videos, and tutorial videos in addition to written directions were helpful in clarifying instructors' expectations and course requirements. They were not fumbling to understand expectations, rather they could meet instructors' expectations and demonstrate their skills and knowledge on the assignment/s.

Constructive Feedback and Appropriate Resources

Participants in the present study perceived constructive feedback and appropriate resources to support them in meeting instructor expectations and course requirements helpful in achieving their learning goals. Effective feedback to learners may be more important in the online environment where students are more self-guided and should verify students' understanding of concepts and facilitate reflection (Garrison et al., 2010). Quality feedback from instructors can positively impact engagement of all three presences in the Community of Inquiry model and directly affects students' engagement, satisfaction, and performance (Steele & Holbeck, 2018). Students' sense of agency, represented by motivation, time management skills,

and multitasking ability, affects their satisfaction with online learning and hinges on students knowing how they are doing in class (Dziuban et al., 2015). Priesman (2014) found that feedback and guidance were more important to students than seeing the instructor. When students can assess their progress in class, as well as receive timely feedback from the instructor, they are more satisfied with their learning experience (Rios et al., 2018). Participants in the present study confirmed this, stating that while they understand instructors are very busy, providing some feedback or acknowledgement of their hard work goes is needed to affirm learning.

Grading assignments in a timely manner, providing substantive and holistic feedback, and answering student questions within 24 hours helps to maintain consistency in students' learning environments (Rios et al., 2018). However, feedback on online courses can be more intensive than regular classroom feedback (Wang et al., 2021). Online faculty should develop efficient and meaningful ways to give feedback based on the five elements of effective feedback (Steele & Holbeck, 2018). Some suggestions include short, personalized video/audio feedback; immediacy by responding using technology tools like instant messaging or class chat applications; formative assessments like online quizzes; quizzes with built in feedback responses after every question; and pre-made screencasts of frequently asked questions or occurring problems.

In addition to providing feedback, participants in this study perceived having appropriate resources important for achieving learning goals. Instructors should provide technological support to enhance students' online learning experiences (Wang et al., 2021). Since students may be missing pre-requisite skills, background knowledge, or can have a variety of technology experiences, instructors can provide supports or "step stools" that help students access the online curriculum (Darby & Lang, 2019). Specifically, participants in the present study shared that

instructors who provide tutorial videos for technology that will be used in the course is very helpful and saves valuable time trying to figure it out on their own. Also, participants stated that they appreciated videos where instructors modeled and walked them through new skills. When students have a clear understanding of what they need to work on, it can save them and the instructor time, as it allows both to focus on the areas that contribute to improved learning and a better final grade (Rios et al., 2018).

Online educators must provide opportunities beyond information dissemination that foster critical thinking skills through communities of inquiry (Garrison, 2007). The quality of online courses is significantly affected by teaching presence and how educators are prepared to teach in online environments impacts the quality of their instruction (Gurley, 2018). To improve quality of instruction, online educators must identify and execute design elements, teaching pedagogies, and provide supports to facilitate engaging online learning environments. The five areas of importance presented in this paper provide a starting point for execution. Expanding on this research through a university wide mixed methods study using Wang's (et al., 2021) Five-Dimensional Teaching Presence Scale could help Institutes of Higher Learning identify design elements, teaching pedagogies, and supports across a larger population of online students.

Implications for Practice

The results of the present study revealed five key areas where educators could best spend their time and effort based on students' perceptions of importance in achieving their learning goals. Instructors can use these findings to develop and facilitate dynamic and engaging online learning environments. Specific design elements, teaching pedagogies, and supports that participants in this study perceived most beneficial for achieving their learning goals included: 1) course design and organization (such as a consistent weekly lesson format); 2) explicit

communication of all learning outcomes, expectations, assignments, activities, and schedules through multiple medias to accommodate diverse learners (i.e., use short videos to explicitly explain and instruct); 3) provide intentional, organized, and guided synchronous and asynchronous opportunities to connect, collaborate, and solve case-based problems (i.e., discussions are interactive, solve problems, and where the instructor actively contributes); 4) include real-world assignments with explicit explanation and applicability to their field of study (i.e., intentional assignments and activities that mimic what they will experience in the field); and 5) provide timely and constructive feedback and appropriate resources and strategies to meet expectations and course requirements (i.e., develop efficient feedback strategies and include step stool supports to help students access curriculum).

The quality of online courses is affected by teaching presence. How educators are prepared to teach impacts the quality of their instruction in online courses. In fact, teachers who had been trained to teach online perceived their teaching presence, or how well they facilitate learning, more favorably than those with on-the-job training only (Gurley, 2018). Institutes of Higher Education (IHEs) must invest in faculty training and mentoring that teach faculty effective teaching presence behaviors specific to online learning environments. The Five-Dimensional Teaching Presence Scale (Wang et al., 2021) can be a useful tool for designing trainings around the teaching behaviors measured in the scale. Also, developing a network of faculty champions to provide ongoing mentoring in the five dimensions of teaching presence could help universities to improve teaching presence and student satisfaction. More engaging student experiences may result in higher enrollments and improved retention rates in online programs.

Limitations

This study included only 5 participants from one college within a university, therefore results of this study should not be generalized to the online learning population. Rather, it extends previous literature for identifying the design elements, teaching pedagogies, and supports online found most helpful for achieving their learning goals.

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Appendix

Online Study Interview Script and Questions

Thank you for participating in our study about ***the course design elements, teaching methods, and instructional supports*** provided in your online or HyFlex courses that ***YOU think*** are most helpful in achieving your learning goals in these courses. We are grateful for your time and excited to spend time with you!

Informed Consent Document: *Go over the informed consent document and if the participant signs the document indicating consent, then proceed with the interview below.

Interview Script:
From this interview, we would like to understand your perceptions of what you find most helpful for your learning and why. We want to know what course design elements, which are defined as the format and structure of the course, are most useful for facilitating your learning. Design elements might include organization, technologies used, and module structure. We also want to hear the teaching pedagogies, defined as methods or learning activities, that your past instructors have used that were most helpful for your learning. Some examples might include the way they lectured or presented content, activities, assignments, assessments, projects, grading, learning or study strategies. Finally, we want to know what instructional supports helped you to achieve your learning goals. Some examples might include overview videos, skill tutorials, assignment tutorial videos, syllabus structure, technology assistance or tutorials, and resources to name a few. Understanding what elements and why they were most helpful to your learning can help teacher preparation and continuing education programs develop more student-supportive online courses.

Instructions: There are no right or wrong answers to the interview questions. We want to know what you think and why. We do ask you to refrain from using specific names of courses and instructors during this interview to maintain confidentiality. When you are referring to courses and instructors or professors, please use phrases such as, "in one course" and "my professor or instructor." If you do slip up and state specific courses or names, they will be removed from the transcript.

Interview Questions:

1) Describe how an optimal online or HyFlex course might be structured and what types of learning activities would be included? (Prompts: Can you tell me more about that?) Secondary: Why or how do those elements/activities help you to learn?

2) What have been your experiences with HyFlex or online courses? Secondary: can you give an example of specific design elements, learning activities, or instructional supports that your instructors have used that were helpful or not helpful? (Prompts: Can you tell me more about that?)

3) In your HyFlex or online course/s, how did you participate in the course most of the time (i.e., asynchronously, synchronously, face to face)? How did you make your choice to participate in courses asynchronously, synchronously, or face-to-face in any given week? (Prompts: Can you tell me more about that? Were there any specific design elements, teaching methods, or instructional supports that affected your choice?)

4) If you could tell online instructors anything about designing courses, developing learning activities, and providing instructional supports, what would you want them to know?

Concluding Script: Thank you so much for your participation in our study. All personal identifiers will be removed from the findings.

CHAPTER IV

INTERDISCIPLINARY TEAMING TO SUPPORT BEHAVIOR PLAN IMPLEMENTATION: PERCEPTIONS OF SPECIAL EDUCATION PERSONNEL

Author Note

This article is submitted in partial fulfillment for the PhD in Teaching and Leadership at the University of North Dakota. Questions or comments on this article should be directed to Tamara Hoffer. Email: tamara.waldal@und.edu, Phone: 701-690-8602.

Abstract

Teacher shortages are profound, especially in special education. Special education personnel are more likely to leave the field when they feel inadequately prepared for service (Mason-Williams et al., 2020), and are less likely to leave the field when they feel connected with schools that promote inclusion, multi-disciplinary teaming, and collective responsibility for all students (Billingsley et al., 2019). Children who demonstrate disruptive and destructive behaviors in the classroom place a great deal of stress on teachers and their behaviors can interfere with their learning and the learning of other students in the classroom. As universities work to address teacher attrition trends, field-derived empirical data is needed to inform the way that they prepare educators, special educators, and administrators for supporting students with significant behavioral needs in schools. The purpose of this study was to gather information from K-12 special education teachers in the upper Midwest about their perceptions surrounding barriers to three educational practices in their schools: interdisciplinary teaming to support

students' problem behaviors, the development and implementation of function-based intervention plans, and the use of data to inform decision-making related to students' behavior plans. Key findings from this study support inter-disciplinary coursework in university preparation programs to better prepare all educators, administrators, and school related professionals to support students who demonstrate severe behaviors in schools. Specifically, explicitly teaching and modeling evidence-based practices in real classrooms to prepare school-wide teams to meet the complexities of managing behaviors in schools.

Keywords: evidence-based practices, behavior intervention plans, behavior plan implementation, inter-disciplinary coursework, teacher preparation

Interdisciplinary Teaming to Support Behavior Plan Implementation: Perceptions of Special Education Personnel

Teacher shortages are profound and accelerating throughout the United States (US Department of Education, 2022). Specifically, special education teacher positions tend to be the most difficult to fill for school districts across the nation, especially in rural school districts. These shortages result in educational service delivery inequities for students with disabilities (Mason-Williams et al., 2020). Throughout the United States, the percentage of special education personnel leaving the field increased every year between the 2016-2017 and 2020-2021 school years (Zamarro et al., 2022). Exceeding national trends, North Dakota schools are experiencing an ongoing and worsening special education teacher shortage as the number of North Dakota students needing special education services increases (USDE, 2022).

Special education personnel are more likely to leave the field when they feel inadequately prepared for service (Mason-Williams et al., 2020), and are less likely to leave the field when they feel connected with schools that promote inclusion, multi-disciplinary teaming, and

collective responsibility for all students (Billingsley et al., 2019). Research demonstrates that models of educational service delivery that promote collective responsibility for students' academic, social, and behavioral progress also provide academic and social benefit for students who demonstrate significant behaviors (Kurth et al., 2019).

Universities, state training and technical assistance organizations, and school districts are currently acting to remediate the special education teacher shortage. As these organizations work to address teacher attrition trends, field-derived empirical data is needed to inform the way that they prepare educators, special educators, and administrators for supporting students with significant behavioral needs in schools. The purpose of this study was to gather information from K-12 special education teachers about their perceptions surrounding: 1) the causes that contribute to specific support needs identified in a February 2022 statewide needs assessment survey conducted by Dr. Joanna Ryan in early 2022 and, 2) pre-service and ongoing professional development training activities that may help to address these support needs as new teachers enter the field. The needs assessment survey was to identify what North Dakota special educators needed to educate students with significant behavioral support needs. The researcher used focus groups and qualitative analysis to investigate teachers' perceptions in these areas, focusing primarily on three educational practices identified in the needs assessment survey: interdisciplinary teaming to support students' problem behaviors, the development of function-based behavior intervention plans, and the use of data to inform decision-making related to students' behavior plans. Understanding how special educators perceive these three educational practices can be utilized to address the accelerating trend of special education teacher attrition in the United States and North Dakota. The information gathered through this study will be used to develop (1) practical recommendations for pre-service teacher training institutes of higher

education (IHEs), and school districts as they work to improve behavior plan implementation and (2) recommendations for special education researchers as they examine factors related to successful behavior interventions in schools.

Literature Review

Children who demonstrate disruptive and destructive behaviors in the classroom place a great deal of stress on teachers and their behaviors can interfere with their learning and the learning of other students in the classroom. Federal legislation (IDEA 2004) requires that students with disabilities have access to the general curriculum, participate in high-stakes assessment programs, and be educated in the least restricted environment. Furthermore, federal special education law requires that students whose behavior significantly impacts their learning, or the learning of others must have a behavior intervention plan (BIP) based on the function of the child's behavior determined through a functional behavior assessment (FBA). Pressure on teachers of students who demonstrate significant behaviors to remain in their classrooms most of the day to meet these requirements is challenging if teachers are not adequately trained to provide evidence-based positive behavior supports in regular classroom settings (Wagner, et al., 2006). Even though effective interventions backed by research have been developed (applied behavior analysis and positive behavior intervention supports), schools struggle to implement evidence-based practices (Westling, 2010).

Teachers' lack of knowledge and skills in behavior management may be one factor for limited success with behavior intervention and plan implementation in schools. Teachers across all grade levels and subject areas report student misbehavior as a cause for major stress and that they need additional training in behavior management in inclusive settings to keep students who demonstrate significant behaviors in the classroom (Embse et. al. 2019). The Individuals with

Disabilities Education Act (IDEA) legislation mandates that schools implement inclusive practices, yet there is a significant gap between what is required by law and how the law is implemented in schools. Specifically, students who demonstrate problem behaviors are often excluded from general education classrooms because their behaviors impede learning, and they lack the skills to be successful in general classroom environments. Research shows students with emotional disorders (ED) participate less in class, lack social skills to work with peers, have lower grades because of insufficient participatory skills, had poor attitudes toward school, did not do their assignments, did not study for tests, had frequent absences, and are at risk for dropping out of school (Wagner et al, 2006). The following review of literature revealed that general educators' lack of knowledge and training, lack of belief in interventions, and lack of team collaboration and support were barriers to implementing behavior interventions and executing behavior support plans with students who demonstrate significant behaviors in school settings.

General Educators Lack of Knowledge and Training

Students who demonstrate significant problem behaviors in the classroom are often the most difficult for general and special educators to teach. Current research shows inexperience and lack of appropriate training for general educators were found to be barriers to implementing effective behavior interventions for students with ED who exhibit intense behaviors in the classroom. Samudre, et al. (2022) conducted a systematic literature review of behavior management training provided to general educators. From the 74 articles reviewed, they found a disconnect between teacher-reported needs in lack of knowledge in how to provide behavior support for students who engage in the most problematic behaviors in the classroom. Without appropriate training, general educators experienced increased difficulty with managing

significant student behaviors and were more likely to rely on punitive and exclusionary practices rather than providing positive behavior supports for students who struggle with problem behavior in their classrooms. The authors also concluded there is a great need for more research on: 1) what functional based interventions general educators were trained in, 2) how they were trained, and 3) the effects of those interventions on student outcomes in general education classrooms. Compounding the problem, many special educators may also be ill-equipped to work with students with significant behavioral needs because of special education teacher shortages (Billingsley, et. al., 2006).

Billingsley (et. al, 2006) conducted a survey of more than 2,000 special educators and found that of the 859 special educators, most **t**eachers who instructed students with emotional disorders were on provisional or emergency licenses working toward certification. Also, many had been certified through alternative teacher preparation programs that required less time practicing in the classroom (i.e., no student teaching or internships required). Furthermore, most had no academic content area training, were only prepared to work with students with mild to moderate disabilities and had only taken one behavior management course during their programs. This is problematic because general educators rely on special educators' expertise and guidance for working with students with emotional and behavioral needs. Students with EBD are not only at risk because of their disability but also because they will have teachers who lack basic preparation for teaching (Billingsley, et. al., 2006).

Evidence Based Practices

To understand educators' lack of training, teacher preparation programs must first identify and define what constitutes appropriate training for supporting students with behavior needs in regular education classrooms and school settings. IDEA requires that interventions and

supports be aligned with the student's function of behavior the student is seeking through demonstrating the problem behavior/s. To meet these requirements, educators must first collect useful data to determine the function of the problem behavior, identify the behavior dimensions (i.e., frequency, duration, severity, and contexts), and analyze the data to select appropriate evidence-based interventions to change the behavior. Although data-based decision making is critical for developing appropriate and effective interventions, Gage and Mcdaniel (2012) found that general educators' lack of skill in collecting, interpreting, and using data are barriers to its use in practice. They conclude that educators may fear collecting data because of what it might reveal or the amount of work it might take to both collect and use the data in their already busy schedules. Using data from progress-monitoring systems helps teachers to be objective and rely on facts rather than subjective speculation. Facts help educators to "identify the problem, identify a solution, and then track the solution's effectiveness" (Gage & Mcdaniel, 2012).

Identifying Evidence Based Practices

Once the problem behavior and function have been identified, educators must implement evidence-based solutions aligned to the function of behavior and provide support to the student in the classroom. Evidence-based practices are defined as instructional learning methodologies and interventions supported by empirical research and professional wisdom. In practice, however, professional wisdom takes precedence over empirical evidence in teaching methods (Burns & Ysseldyke, 2009). Burns and Ysseldyke (2009) conducted a survey study to examine the use of six different evidence-based practices with varying effect sizes implemented by special educators (n=174) and school psychologists (n=333) with students with special needs. Special educators self-reported and school psychologists observed the special educators' use of evidence-based practices for this study. Results showed that teachers implemented evidence-

based practices with low effect sizes (i.e., social skills instruction, perceptual-motor training) more than those with higher effect sizes (i.e., ABA (Applied Behavior Analysis)). These results may be because of educators' lack awareness of effective evidence-based practices or not keeping up with current research in these areas.

Beam and Mueller (2017) conducted a nationwide survey of 277 special and general educators to examine their 1) knowledge of evidence-based practices across a three-tier continuum (RTI/MTSS), 2) to what extent they are prepared to work with students who demonstrate challenging behaviors, and 3) how confident and comfortable they are working with such students. Not surprisingly, results found that special educators were more knowledgeable of the continuum of supports for behaviors and more comfortable working with students who demonstrated problem behaviors than their general education peers. Yet, knowledge of evidence-based practices is also necessary for general educators since they often refer students to programs for extra support, must apply behavior management strategies to prevent problem behaviors, and need to implement interventions to support students who demonstrate problem behaviors in their classrooms. Addressing the research to practice gap by using evidence-based practices is critical for all educators to improving student outcomes for students with special needs and meeting IDEA legislation that requires inclusive practices in schools.

For educators to use evidence-based practices, they must know where to locate them and be trained in how to implement them with fidelity. Stormont (et. al., 2011) conducted a study to explore general educators' knowledge of evidence-based programs and their schools' resources to support children with mental, emotional, and behavioral needs. They surveyed 239 general education teachers from five school districts. The quantitative survey included 42 questions and a list of 10 evidence-based programs. The investigators found that 78% of teachers recognized

Positive Behavior Intervention Supports (PBIS) and 82-92% reported they had never heard of the other nine evidence-based programs. Also, 57% were not sure if their schools performed functional behavior assessments and behavior intervention plans. This is problematic since general educators are often required to implement evidence-based interventions from behavior intervention plans as required by children's Individual Education Plans (IEPs). The authors surmised that the research to practice gap using evidence-based interventions cannot be reduced if teachers are unaware of such evidence-based practices, where to find them, and how to implement them with students in their classrooms. Institutes of Higher Education (IHEs) must provide awareness of evidence-based practices clearinghouses and resources available to educators during their educator preparation programs. In addition, efforts should be made to explicitly instruct candidates on how to find, consume, understand, and operationalize evidence-based practices in real classroom settings. Candidates must be aware of the assessment process (identification, data collection, progress monitoring), resources available to meet the needs of students with emotional/behavioral needs, and evidence-based practices available to support these students.

Implementation of Evidence Based Practices in Classrooms

Even with significant research that has contributed to the development of effective evidence-based practices for teaching students with special needs, implementation and sustainability of such practices has had limited success in classrooms and school settings. Vaughn (et. al., 2010) reviewed factors related to the sustainability of proven educational research practices in the classroom. Two phenomena were presented for the research to practice gap in education: 'blame the teacher' which suggests that teachers knowingly choose to use approaches that are ineffective and 'blame the researcher' suggests that they develop ideas or

theories out of contextual settings and implement them in only a few classrooms and with a few teachers. Then researchers expect teachers to understand and apply the research in their own classrooms. Three factors influence research to practice (Malouf & Schiller, 1995): 1) professional knowledge and learning of evidence-based practices and using them, 2) teacher attitudes and beliefs about effectiveness of research and how evidence-based practices could influence their teaching, and 3) contextual factors including demands, settings, time, curriculum, and administrative directives. Educators must understand why, when, and how to use evidence-based practices and believe in the effectiveness of such strategies in school settings.

General Educators Lack of Belief in Evidence Based Practices and Inclusion

Teachers' attitudes and beliefs about EBPs and inclusion had considerable influence on whether teachers used them in their classrooms. Bambara (et al., 2012) sought to identify school personnel's perceptions of the barriers and enablers to Positive Behavior Intervention and Supports (PBIS) implementation in school settings based on team members' experiences and beliefs. They interviewed 293 team members (teachers, administrators, coaches, parents) across six states who had substantial training and experience with implementing PBIS. They found that five of the top ten barriers to implementation were team members' beliefs that: a) students who use problem behaviors should be punished, b) that interventions should result in rapid changes of behavior, and c) that students would be better served in segregated settings. Findings from this study showed that school-based team members' core beliefs or mindsets created the largest barriers to implementation of function-based interventions, despite training received. Another study conducted by Westling (2010) surveyed 38 special educators and 32 general educators to examine teachers' perceptions, feelings, and reactions to working with students who demonstrate challenging behaviors in the classroom. Results showed that most participants believed that

behavior was learned and 100% believed that behavior could be improved, however most did not report using effective EBP (Evidence based practices) strategies or methods (i.e., ABA, PBIS) to improve problem behaviors in their schools. Both studies suggest that educators either do not believe that EBPs will work with students with significant problem behaviors or that students would be better served outside of the classroom.

Inclusion Attitudes and Beliefs

Belief in the effectiveness of evidence-based practices may not be the only problem, rather deep-seeded beliefs about inclusion of students with significant behavioral needs may pose the largest obstacle to implementation of behavior interventions in classrooms. Dignath et al. (2022) sought to identify barriers (and contributors) to implementation of inclusive education and conducted a meta-analysis by reviewing 102 papers (from 2000-2020; 191 effect sizes and 40,898 teachers in 40 countries) regarding teachers' attitudes, feelings, and self-efficacy to teach in inclusive classrooms. The researchers found that: 1) self-efficacy was higher for pre-service teachers (prior to experience in the field) than for in-service teachers, 2) those with special education training viewed inclusion more positively than general educators, and 3) adequate training that included experience in inclusive classrooms and reflection improved all three belief systems. They argue that belief systems may be the culprit to bridging the gap of policy (IDEA 2004 requirements) and actual implementation. Accordingly, belief systems play a key role in how comfortable educators are in implementing reforms (such as inclusion) and if they think and feel positively about a set of practices, they are more likely to implement those practices in their classrooms. The converse is also true. Challenges to teachers' current belief systems such as costs and benefits of inclusion can result in anxiety of fear of additional workload and their self-efficacy can be decreased. Though the study was comprehensive, the authors still had one

lingering question: Is it teachers' experience/s or the amount or type of special education training that affects teachers' belief systems?

Wilson (et. al., 2020) found that field experiences in inclusive classrooms and practical experiences with people with special needs (i.e., relatives, camps, jobs, etc.) helped to develop more positive beliefs around inclusive practices in schools. In addition to inclusive experiences, MacFarlane and Woolfson (2013) found that teachers who held more positive beliefs and higher levels of teaching self-efficacy were more likely to engage in inclusive practices with children with Emotional Behavior Disorders (EBD). The authors also found subjective norms to be the only predictor of teacher behavior. Subjective norm is the perception of how significant others (such as principals or supervisors) will approve of their behavior. In other words, school principals' expectations and communication of those expectations regarding inclusive practices of students with EBD play a significant role in teachers' behavior toward the inclusion of students with EBD in their classrooms. Results of this study suggest that preparation programs should focus on building skills for inclusive practices and challenging beliefs that learning problems in education lie with the child. Inclusion is a school culture and inclusive practice skills must be learned by all team members.

Lack of Team Collaboration and Support

Research proves the effectiveness of FBA and BIPs (Behavior Intervention Plans) (Behavior Intervention Plan), yet classroom teams struggle to implement BIPs with fidelity which may impact student outcomes (Robertson, et. al., 2020). Fidelity of implementing school-wide positive behavior intervention supports is associated with reducing reports of problem behaviors in schools (Childs, et al., 2016). Fidelity is defined as implementing interventions as they are designed with consistency across all implementors and environments. Previous literature

suggests that barriers to fidelity of implementation might be due to lack of effective collaboration across faculty and staff (Coffey & Horner, 2012); lack of administrator support (McIntosh et al., 2016); philosophical differences with a positive behavior support approach; and lack of staff knowledge, skills, professional development, and technical support (Yeung et al., 2016).

Team Collaboration and Fidelity of Implementation

Childs (et. al, 2016) used a longitudinal study to examine the associations between fidelity of implementation of school wide positive behavior supports and school-level behavioral outcomes. They found that higher fidelity implementation schools showed an immediate drop in discipline incidents than lower fidelity implementers, however the sustained rate across time does not differ much from low-fidelity implementers. This may be interpreted as students may not be significantly impacted until Tier 1 support is implemented at the classroom level, which included the greatest inconsistencies with implementation. General educators spend the most time with students and have the most opportunity to respond to students who need Tier 1 supports, however when the majority of faculty are inconsistent with implementation in classrooms, then desired outcomes are difficult to achieve. Schools with teachers and staff who have similar beliefs, attitudes, buy-in, and consistency with behavior supports (i.e., fidelity of implementation), as well as explicit training in how to implement those supports in their classrooms will have the most significant impact on positive student outcomes. To achieve consistency, the team must first believe behavior plans will work and then work the plans together.

Robertson (et al., 2020) conducted a statewide survey of over 600 teachers, of which 94% were special educators, to examine their experiences and understand the barriers that impact BIP implementation in their schools. The most significant barriers reported in the survey included: 1)

cause of problem behavior cannot be addressed through a BIP; 2) inconsistent BIP implementation across staff; 3) inadequate resources (time, trained staff, understaffed) to implement the BIP; 4) BIP is ineffective and written by people who do not know the child well or the context for which the BIP is needed. Also noted in the study, fidelity of implementation tended to significantly decrease within 7-10 days of beginning the plans. Similarly, Westling (2010) found that most special and general educators reported little support from administrators and behavior specialists for students who demonstrate challenging behaviors. In addition, general educators reported little to no support for implementing BIPs from those who had written the plans. Behavior support plans written by behavior specialists who wrote plans without team input lacked contextual fit and resources for the plan to work in school settings (Benazzi, et. al., 2006). Without team collaboration and an inclusive culture in schools, fidelity of plan implementation will not be achieved and sustained over time.

Schoolwide Inclusive Culture

Implementing positive behavior supports requires a substantial shift in thinking about how to manage and address significant behaviors through support and inclusion rather than punitive measures. Bambara (et al., 2009) conducted a qualitative study using semi-structured interviews of team members who provide positive behavior supports for individuals (IPBS) who demonstrate significant or severe behaviors in schools. Twenty-five participants were selected (teachers, social workers, special education teachers, parents, administrators, behavior specialists, and school psychologists) to find out what these team members perceived to be the barriers to implementing IPBS in school settings and what enablers or facilitators they perceive to be essential for implementing IPBS. Five themes emerged in their results: 1) the importance of establishing school culture which all members share a common understanding and appreciation

of individual positive behavior supports through adequate training; conversely lack of buy-in, lack of knowledge of PBS practices, non-inclusive practices, and beliefs in punitive punishment for behavior were barriers, 2) Administrators play a pivotal role in the success of positive behavior supports and successful implementation; conversely lack of principal support and leadership in this area is a barrier to implementation and promoting a strong inclusive culture, 3) Structure and use of time were a key concern and barrier and that typical school schedules are not conducive to collaboration opportunities (also noted that IPBS can be labor intensive and very time consuming for already overwhelmed faculty and staff), 4) lack of adequately trained faculty and staff was a significant barrier to implementation, as well as teachers' lack of experience with data collection and interpretation; conversely, team skills were stated as necessary and include learning collaborative problem solving, team building, and having multiple perspectives helps with implementation, and 5) active family and student involvement is both a barrier and necessary for success.

Conclusion

Federal legislation (IDEA 2004) requires that students with disabilities have access to the general curriculum, participate in high-stakes assessment programs, and be educated in the least restricted environment, which is often the general education classroom. For students whose behavior significantly impacts their learning, or the learning of others, federal legislation requires that school teams develop and implement behavior intervention plans (BIP) that use evidence-based interventions. Teachers are expected to implement these behavior support plans so students can remain in their classrooms, yet there are many barriers that make implementation challenging that result in students being excluded from classrooms. Themes related to perceived barriers to behavior plan implementation discussed in this review include: 1) general educators'

lack of knowledge and training in evidence-based practices for students who demonstrate significant problem behaviors; 2) general educators' and school teams' lack of belief in evidence-based practices and/or inclusive practices; and 3) lack of team collaboration and support resulting in decreased fidelity of implementation. For institutes of higher education (IHEs) to address these barriers, more information is needed. Specifically, how schools use interdisciplinary teaming to support students' problem behaviors and the use of data to inform the development of function-based behavior intervention plans.

Most of the studies in this review were survey-based, however focus groups may glean a more robust understanding of how special educators perceive these educational practices in their schools with their teams. This information may be helpful in making (1) practical recommendations for pre-service teacher training institutes of higher education (IHEs), and school districts as they work to improve behavior plan implementation in schools and (2) recommendations for special education researchers as they examine factors related to successful behavior interventions in general classroom settings.

Methods and Methodology

Participants

The research team solicited licensed special educators in North Dakota, Minnesota, and Montana for this study. Email invitations were distributed to special educators by the research team using four recruitment pathways: a) research staff obtained a list of North Dakota special educators from the North Dakota Department of Public Instruction (DPI) and disseminated a participant invitation email; b) research staff used publicly available lists of names and emails to send a recruitment email to special education directors and campus administrators in North Dakota, Minnesota, and Montana (e.g., information published on websites of state departments

of education) that included instructions to forward the recruitment email to educators on their campuses and contained a link to the screening questionnaire; c) research staff used publicly available contact information to send a recruitment email to personnel at the North Dakota Council for Exceptional Children (CEC) that included instructions to forward the recruitment email to CEC members and contained a link to the screening questionnaire.

The researchers obtained 13 participants and conducted four focus groups with two to five members per group (Krueger, 2014, p 23). Recruitment emails included the study's purpose, a summary of the needs assessment conducted prior to this study, research questions the researcher hoped to answer, and the general format of how the focus groups would be facilitated. The participants included special education teachers from Montana, North Dakota, and Minnesota. Representation included urban and rural school educators and experience in PK to 12th grade. Educators in this study had a wide range of experience between one to thirty years in the field. One participant was also a principal in his school district.

Methods

The researcher used focus groups and qualitative analysis to investigate special education teachers' perceptions of three specific educational practices identified in a statewide needs assessment survey: a) interdisciplinary teaming to support students' problem behaviors, b) the development of function-based behavior intervention plans, and c) the use of data to inform decision-making related to students' behavior plans.

The following study procedures and methods were approved by the University of North Dakota's Internal Review Board (IRB#0004927) and used for this study. First, invitation emails were sent to special education teachers with an explanation of the study, using the four pathways previously discussed. Within the email was a link to a Qualtrics pre-screening survey for

interested recipients to complete. The screener included grade-level of teacher assignment, rural or urban school, state school is located, and years of teaching experience.

Once 25 participants were identified from the screener, a participant email was sent with an explanation of the Informed Consent document, the Informed Consent document attachment, and a request to set up an individual 10–15-minute meeting with the primary investigator to answer any questions and to digitally sign the DocuSign Informed Consent document. After signed Informed Consent documents were received, the primary investigator asked the participants to choose a focus group date from the schedule that fit their needs. An Outlook Calendar invite with the focus group Zoom link was then sent to each participant.

Focus groups were conducted in December 2022 by the researcher with each confirmed participant over a private Zoom link. Focus groups were 60 to 90 minutes (about 1 and a half hours) in length and the video was recorded in Zoom. At the beginning of each of the focus group sessions, the researcher read the IRB (Institutional Review Board) approved introductory script, reminded participants of the Informed Consent document and their option to withdraw at any time, answered any participant questions, and instructed participants on the format and expectations for the focus groups (Appendix). During the focus group sessions, the researcher asked questions with follow-up and probing questions based on the participants' answers to encourage depth of discussion or provide clarity. First, participants were asked to give a 'grand tour' of their perceptions of the support they receive for working with students who use problem behaviors. The investigator then probed participants on their experiences with these supports. In addition, participants were asked to share descriptions of the types of training they have received for managing student behaviors. Finally, participants were asked what they perceived to be the most significant barrier to implementing behavior interventions and plans in their schools and

any ideas they may have for overcoming those barriers. This semi-structured format of open-ended types of questions allowed the participants to lead the investigator through their unique experiences of the causes they perceive that contribute to specific support needs for working with students who use problem behaviors. This method of question and discussion helped provide more clarity and depth of understanding of the training activities or teaming supports they perceived to be valuable for addressing these causes (Maxwell, 2012).

All recorded group sessions were then transcribed verbatim using Zoom software. Participant responses were coded to remove any identifying information, including any specific school, administrator, faculty, or staff names stated during interviews. Once all sessions had been transcribed, the researcher applied codes to the data in Atlas Ai software, and themes were identified. The researcher used constant comparative analysis, in which data is coded into smaller chunks of single words or phrases, then grouped into related categories, and finally synthesized into themes to represent the entirety of the qualitative interview data collected (Glaser & Strauss, 1967).

Validity of Data Techniques

When considering the integrity or trustworthiness of data collected in the study, the techniques used were prolonged engagement and member checks. First, prolonged engagement is defined as length of time spent in the field is adequate to the study's purposes (Lincoln & Guba, 1985). To demonstrate prolonged engagement, the researcher conducted 60-90-minute recorded interviews with each focus group and members were limited to five per group so that all members had a chance to answer questions. The goal of prolonged engagement was to build rapport and trust between the researcher and participants to encourage rich and elaborate explanations of their answers to the interview questions. This technique can help to deepen

understanding of the participants' shared lived experiences of the phenomenon. Thus, providing confidence in the depth and trustworthiness of those experiences.

The second validity technique, member checking, is defined as continuous formal or informal consultation and sharing of data with participants to confirm researcher interpretations (Lincoln & Guba, 1985). This technique was demonstrated during focus groups with frequent questioning tactics like, "Let me see if I understand what you are saying" then the interviewer restated what she heard the participants say or summarized what the participants said to ensure that she understood responses correctly. All focus groups were digitally video recorded, serving as a secondary validity check to ensure that participants' interview data and shared experiences were represented accurately in the results of the study.

Results

The results of the study were not new or novel compared to scholarly literature, however they do provide context for how special educators in the study perceived the causes that contribute to three specific educational practices identified in the needs assessment survey that prompted this study: interdisciplinary teaming to support students' problem behaviors, the development of function-based behavior intervention plans, and the use of data to inform decision-making related to students' behavior plans. This context can be valuable for understanding how to address the accelerating trend of special education teacher attrition in the United States and North Dakota, specifically for preparing educators, special educators, related services personnel, and administrators to collaborate to implement evidence-based behavioral supports to students who demonstrate problem behaviors in schools.

Interdisciplinary Teaming to Support Students' Problem Behaviors

Focus group participants were asked to describe the kinds of support they currently receive for working with students who use problem behaviors and for developing and implementing behavior interventions in their schools. Sources of personnel support identified by participants included school psychologists, counselors, social workers, behavior specialists, school principals, special education colleagues, paraprofessionals, and general education colleagues. Only one participant indicated support from onsite law enforcement as a school resource officer. Sources of other non-personnel support included additional training for team members.

Positive Perceptions of Supports Provided by Personnel

All participants stated that they had access to school psychologists, who often helped with data collection, developing, and writing behavior plans for students. However, school psychologists were assigned to multiple schools, so on-site access was often limited to one to two times per week at most, and they provided little support in the way of therapy to students. Also, school psychologists were perceived by many of the participants to have the most expertise and provided useful guidance to educators for behavior intervention supports for students; "We only get her (school psychologist) one day a week, but she's like a dictionary of all things." Similarly, counselors and social workers were available at many participants' schools and viewed favorably for providing support, but they too were only onsite one to two times per week and spread too thin for the mental health supports needed by all students in the schools; "We have three counselors, and they're just so busy…I do feel like our school is trying to get more supports and stuff, but it's like they just can't keep up." Access to behavior specialists was also cited by many participants, yet again, there was limited access to these specialists since they

were spread between multiple schools and the supports provided in most cases were that of data collection and writing behavior plans but had little or no time to help with plan implementation with students.

In addition to care professionals, school personnel provided support with students who demonstrate problem behaviors. Some participants stated that their school principals were supportive in that they provided help with disciplinary measures and helping to secure funds for additional training (FBAs/BIPs, CPI, Safe Hands, etc.) for school personnel, however only about half stated that administrators helped with implementation of positive behavior supports and intervention plans with students. One participant, who was also a principal, suggested a reason for this; "From the administrative side of this I think even administrators need more background and schooling (in special education), and what to do in these situations, because a lot of it is just on the fly, and you make it up as you go." Finally, many participants echoed that the most support comes from their special education colleagues as summed up by one participant, "The biggest support that we have is each other in our building. We each have our own case load, but we share students…there is not just one person in the building for that kid, but two or three that student feels comfortable going to so my team is the biggest support that we have. Without that I would not still be doing it (teaching special education)."

Alarmingly, very few participants stated that they received adequate support from their general education colleagues when working with students who demonstrate significant problem behaviors. Participants suggested two reasons for this: 1) lack of training in special education, and 2) lack of buy-in for plans and/or inclusive practices. Also of note, few mentioned paraprofessional support, which could be because all participants indicated shortages of paraprofessionals in their schools. Though most of the supports received by the special educators

in this study were perceived favorably, several themes emerged through the group discussions that they perceived as barriers to school team collaboration for providing behavior supports to students who demonstrate severe behaviors in their schools.

Barriers to Team Collaboration and Implementing Behavior Supports in Schools

Most participants in this study viewed the supports provided in their schools or districts favorably to a degree, however, 1) lack of qualified personnel, 2) lack of general educator knowledge of special education, 3) limited access to qualified professional personnel, 4) special education teachers having too many responsibilities and being spread too thin, and 5) the 'your special education kids, not my responsibility' anti-inclusive mentality were perceived as the most significant barriers to team collaboration and implementing behavior supports in the participants' schools. These findings are like previous literature, but the perceptions of the causes the participants shared in this study are interesting and significant for teacher preparation programs, related service providers, school leadership preparation programs, and stakeholders.

Lack of Qualified Personnel

All participants stated that their schools were struggling to hire and keep qualified teachers, special education teachers, paraprofessionals, and other support staff members. This aligns with current nationwide teacher shortage trends. However, shortages abound, what the participants said about the quality of personnel preparation for the field is significant. With desperate times come desperate measures, including putting teachers in the field who are inadequately trained, do not have teaching degrees, and through emergency provisional licenses. Many participants agreed that this has been a problem in their schools, as one participant summed it up, "Ov**er** the past 5 or 6 years we have had people come in on provisional licensure where they had an education degree, but not their special ed degree yet. Through what the State

had done, it allowed them to get into the position (while they) start a special ed program to get their credentials. So then, it is like a lot of on-the-job training as they are going through the academics of it as well. So that can be a challenge in and of itself." While this provides solutions for staffing schools, it does not come without a steep learning curve for the new special educators who come into the complex field of special education.

Participants were also asked what types of coursework, training, or activities prepared them to manage student behaviors and what additional training they wished they would have had. Most agreed that they needed more real classroom experiences versus textbook theory, "I do not want theory, like everyone else is saying. I do not want Piaget and whoever else, what can I do or say when this kid is having a meltdown right in front of me? Practice and case studies. That is what I need." Next, participants stated they needed more appropriate training to manage and prevent behaviors, "It's like general (coursework) like this how you do a report, this is how you write goals, this is how you do the paperwork, but it's not really on how to teach and how you work through these behaviors." Finally, participants agreed that cross disciplinary courses or activities with their general education peers, administrators, and other related service personnel during their teacher preparation programs would have helped to better prepare them to collaborate with one another on school teams to support students with behaviors, "Getting them (general educators) to understand how huge their roles are and making sure they're educated on how they can be proactive and use some of the positive measures to make things improve in their classrooms; making sure our special educators communicate what's going on during the (intervention) process; and then making sure school administrators understand special education and their role in helping teachers and special ed teachers. It is a matter of training people what that looks like."

Lack of General Educator Knowledge of Special Education

Lack of general educator knowledge of special education was cited the most frequently and by the most participants in the study as one of the most significant barriers to behavior intervention and plan implementation for students who demonstrate problem behaviors. Most participants believed that lack of special education coursework and preparation in their programs led to the contributing factors of inconsistency (fidelity of implementation) across team members, inadequate behavior and classroom management skills, and lack of buy-in/belief in the inclusion of students with special needs in the general education classrooms. One participant summed it up that general educators need to be educated on, "Behavior plans and classroom management…I cannot expect them to implement a behavior plan that we have written, rewritten, and reviewed, when they cannot manage a classroom of kids well. Then I throw in a tornado and for example ask the teacher to do a parallel learning system (intervention) and she responds with; can't you just keep them in your room? Buy-in from teachers must be solid, and not you (the special educator) fix it." Another participant adding, "I would like to see gen ed staff being trained on behavior plans, you know, more than their intro to special education class in college."

Principals and school administrators typically have general education backgrounds, so they too may lack knowledge of special education. As noted by one participant who is also a principal, "But from the administrative side of this I think even administrators need more background and schooling (in special education) about what to do in these situations, because a lot of it is just on the fly, and you make it up as you go." Without appropriate special education coursework and preparation activities, school administrators may find it difficult to enact inclusive practices in their schools and create an inclusive culture for all students. Participants

stated that principals were integral to establishing schoolwide inclusion, promoting general educator inclusion buy-in/belief, and leading school teams to support all students in general education classrooms. As iterated by one participant "My admin, she is fantastic and she is requiring like a full commitment from everyone, and so that is good. But now we just need buy-in (from general educators)."

Also of note was the type of support provided by principals. Participants stated overall they felt supported by their principals. However, while their principals were supportive, they had no idea how to manage or help students with significant behaviors thus leaving it all to special educators to figure it out. Giving context to this phenomenon, one participant stated, "My principal is fantastic. I love her to death. She is great. Anything that I want or need I will have. She will mess with schedule. She will do all the things, but I mean she does not know any more than I do. She knows less." Most participants indicated that principals having more knowledge of special education would be helpful in providing the leadership support they needed for inclusive practices and implementing behavior plans in their schools.

Lack of Access to Qualified Personnel

Access to qualified professionals with expertise in human behavior such as school psychologists, counselors, social workers, behavior specialists, and other related services personnel was limited for all participants in the study. Most participants stated that these professionals were only onsite one to two times per week, served multiple schools in their districts, and were responsible for the needs of all students, not just students with special needs. In other words, as one participant stated, "One behavior coach or behavior specialist, they are covering four or five, sometimes six buildings. And those buildings have at least 300 to 400 students (each)." Most participants stated that though there was limited access, they received

help with data collection and the development of behavior plans from school psychologists and behavior specialists. Yet, most participants stated they had little support from these professionals during the implementation of interventions and plans. Rather, the support provided from experts was mostly idea generation, and no actual implementation support; "It was more of a support in the form of helping out on ideas, and what you can do to implement into the classroom when none of us are psychologists or therapists."

Participants in the study were clear about what type of support they wanted from the experts. The overwhelming majority wanted more than just support with idea generation, they wanted boots on the ground help with students. As one participant so eloquently put it, "It is like if you are moving, you need someone to come help move, carry boxes, do things. We do not need someone to come and tell us how to pack." Participants stated emphatically that they wanted experts to "Model for me what you'd like me to do" rather than say "Have you thought about this? Have you tried this?" or "Say stuff I can look up in a book." One participant stated having more access to their behavior analyst in the form of modeling would be most helpful; "he is incredibly knowledgeable, and I love working with him, but it would be super helpful for him to come over and show me. Come work with the student and let me observe him working with the student so I understand what I need to change on my teaching side." Special educators need more access to support from behavior experts that include help with developing interventions, intervention modeling and training with actual students, and feedback to team members when implementing the behavior interventions.

Special Education Teachers Have Too Many Responsibilities

Throughout the discussions, all participants stated they were overwhelmed with their responsibilities and how many hats they must wear in their schools. Most stated that in addition

to teaching content courses, providing academic and behavior interventions, administering service minutes to students on their caseloads, and the required legal paperwork (IEPs, progress monitoring, assessment data, etc.), they must also drop everything to de-escalate students in crisis; "When we get called for a behavior of any kind, our world has to stop because they expect us to fix it just like that…whatever is going on in our room has to stop because we have to take care of that behavior right now and help that kid who could be in crisis. But nobody thinks about what is going on in the room with the other kids; that they could be ready to learn and doing good things at that time, but when that thing (behavior) comes up, there is no extra support to help us out." This is problematic because other students on their caseloads and in their classrooms suffer because much of their learning is often interrupted. As one participant stated, "I cannot give them (other students) the interventions they need because I am over here dealing with the behaviors. It is common for me, on average, to miss two to three intervention sessions a week because of special ed (behavior) needs."

Also echoed in the groups was that when dealing with severe behaviors in schools, it is left to special education case managers to support students; "when you have a case manager for behavior students, it does not go to the school social worker. It goes to the case manager, even if it is not something that is in my wheelhouse. I have learned for it to be in my wheelhouse and wear those hats of providing those resources because there just is not enough. That can be very emotionally and mentally taxing to be the one with the answers all the time." Even the participant who was also a principal conceded, "I will say most of the training and implementation of behavior plans does fall on the special education teacher in our district as it is just the nature of that role. How can we provide the other adults supporting those children with the right training and resources? The biggest challenge has been finding the time to be able to do

that, finding enough resources, and writing plans that match the resources we have." Special educators cannot be expected to manage all these responsibilities in their schools. Over time, this leads to burnout and attrition. All team members must be adequately trained to support students who demonstrate significant behaviors, rather than placing all the burden on special educators.

Your Special Education Kids, Not My Responsibility Mentality

The proverbial elephant in the room for each focus group was the segregated mindset of special education students and general education students. Even in 2023, all participants agreed that general educators' buy-in was still a barrier to inclusion and implementation of behavior supports for students who demonstrate problem behaviors. "The biggest thing that we have run into is the implementation by general ed because for one they do not have the training, and two we are still fighting against the they are not my kids, they are special ed kids. They are all our kids. Our staff is particularly good at the school I work at, but we still struggle on a regular basis with teachers looking at the behavior plans and once they have looked at them, do they even understand them? Will they ask questions if they do not? Will they implement them?" In addition, lack of buy-in can promote an adversarial 'us versus them' culture in schools: "It feels like I am a one-person team, or if you have, you know six other special education teachers, but you have 35 gen ed teachers. It is you six against those 35, because they refuse to learn how to scaffold and make the accommodations."

Special educators are expected to be the experts and provide guidance, however, rather than utilizing that expertise and implementing inclusive practices in classrooms, general educators tend to rely on special educators to work with students who have behavior difficulties. "When we go to a teacher with an issue, at least in my experience, it's often met with it's one more thing they have to do, they're (sped students) not easy like their other kids, and I'm asking

more of them (teachers), so now they're an inconvenience." Supporting all students and giving them what they need cannot be viewed as inconvenient. Implementing behavior interventions and support requires multiple team members with the knowledge and willingness to do so and who are collaborating toward the common goal of inclusion for all students. Fostering an inclusive culture must be a schoolwide effort lead by school leadership and administrators.

Validity of Analysis

When considering validity of analysis, two techniques were used so that peers could assess the adequacy of the study (Whittemore, et. Al, 2001). First, an audit trail was maintained using Atlas Ai software including all codes and themes. Next, a reflexivity journal with written events, notes, and thoughts, by the researcher was kept with study design decisions recorded with explanation (Lincoln & Guba, 1985).

Discussion and Conclusions

Research related to behavior plan implementation in schools indicates that: 1) general educators' lack of knowledge and training in evidence-based practices for students who demonstrate significant problem behaviors; 2) general educators' and school teams' lack of belief in evidence-based practices and/or inclusive practices; and 3) lack of team collaboration and support are barriers. The purpose of this study was to extend previous literature by gathering information from special educators about barriers they perceived to three educational practices in their schools: interdisciplinary teaming to support students' problem behaviors, the development and implementation of function-based intervention plans, and the use of data to inform decision-making related to students' behavior plans. Similar to previous findings, the results of this study identified 1) lack of qualified personnel, 2) lack of general educator knowledge of special education, 3) limited access to qualified professional personnel, 4) special education teachers

having too many responsibilities and being spread too thin, and 5) the 'your special education kids, not my responsibility' anti-inclusive beliefs as the most significant barriers to team collaboration and implementing behavior supports in the participants' schools. Though the findings are like previous research, the perceptions of the causes of these barriers shared by participants in this study differ slightly from the literature.

This study revealed lack of qualified personnel, including themselves, as the number one barrier to behavior support implementation in their schools. Special educators coming into the field are ill-prepared to meet the complex needs of students with special needs, especially those who demonstrate severe problem behaviors (Billingsley, et. al., 2006). Consistent with previous literature, participants in this study shared that special educators hired in the last five years were often on provisionary or emergency licenses, had spent less time practicing in classroom settings, and had inadequate training in their preparation programs for managing behaviors. What is nuanced is that participants in this study across all four focus groups shared that they had learned more about behavior theory in their programs than learning how to select and implement evidence-based methods and strategies when students demonstrate problem behaviors. Stormont (et al., 2011) argued the use of evidence-based practices in schools cannot be achieved if teachers are unaware of evidence-based practices and how to implement them with students in their classrooms. Also, educators' doubts about the effectiveness of evidence-based practices may be an underlying obstacle to the implementation of such practices in school settings (Vaughn et al., 2010). All participants in the present study stated that learning how to prevent problem behaviors and what to do when they occur with actual students were lacking in their preparation programs. Appropriate training for all educators should include explicit training on how to implement evidence-based practices in school settings. Doing so may help educators to

'see and believe' and therefore debunk participants' lack of belief in evidence-based practices. Like one unbelieving participant stated, "Have these interventions ever been tried on real students?" To address this barrier, participants suggested practical training solutions that included modeling of evidence-based practices with real students, practicing evidence-based practices with feedback from experts, and learning behavior management skills together with their general education colleagues and administrators.

Next, lack of general educator knowledge of special education and belief in inclusive practices and evidence-based practices were barriers to implementation of behavior supports in classrooms. Although results from this study show them as separate categories, frequent comments made by most participants suggested that they may be causally linked like the chicken and egg analogy. Research shows that teachers' belief systems and self-efficacy to teach in inclusive classrooms can be improved through adequate training and experiences with inclusive classrooms and that self-efficacy using inclusive methods is most influential for implementation of such practices (Dignath, et. al, 2022). Further, field experiences in inclusive classrooms can provide mastery of skills that improve self-efficacy and practical experiences with people with special needs can help to develop more positive beliefs around inclusion (Wilson, et. al., 2020). Westling (2010), found that educators believed they were inadequately prepared to work with students who demonstrate challenging behaviors, but those who had more professional preparation reported using more evidence-based practices and had better self-efficacy for supporting these students. Similarly, participants in this study agreed that general educators need more training in special education, especially behavior management, the FBA process, and how to implement BIPs in classrooms. Some surmised that having this knowledge may improve general educators' beliefs in inclusive practices. Also, most participants indicated that principals

knowing special education would be helpful in providing the leadership support they needed for inclusive practices and implementing behavior plans in their schools. Participants suggested inter-disciplinary training (principals, general educators, special educators, and related service personnel together) on inclusive practices and evidence-based practices for problem behaviors could help to cultivate an inclusive culture in schools where all team members are on the same page with consistent behavior intervention implementation.

Limited access to qualified personnel or experts in behavior (school psychologists, counselors, social workers, behavior specialists, related service providers) was cited by all participants as a barrier to behavior interventions and plan implementation which is like research citing shortages of providers in human service and mental health professions. Research shows implementation can be hindered by BIPs that are written by people who do not know the child well or the school resources available (Benazzi, et. al. 2006; Robertson, et. al., 2020). Participants in this study were adamant that they need appropriate interventions that fit their students and resources of their schools. Though participants in this study stated they received support with idea generation and behavior intervention plan development from these experts, they received little to no support or help with implementing interventions with students and many interventions were inappropriate for school settings. What is more significant is the type of support participants in this study need from experts. They want more than ideas for working with students with challenging behaviors; they want boots on the ground help from these experts that include modeling and training on interventions suggested in the plans, feedback or coaching when implementing the interventions with students, and help when the interventions do not work.

Finally, participants in this study stated that they wear too many hats and that special educators cannot be expected to manage large caseloads, teach multiple courses, provide

intervention services, drop everything to support students who demonstrate significant behaviors, and be the sole implementor of behavior interventions in their schools. Over time, this can lead to burnout and attrition, with several participants citing they were not sure how much longer they could work like this. All team members must be adequately trained to support students who demonstrate significant behaviors (Embse et. al., 2019) rather than placing all the burden on special educators. Cultivating an inclusive culture in schools and promoting schoolwide collective responsibility of supporting students who demonstrate significant behaviors lessens the workload burden on both special and general educators (Kurth et al., 2019). Fidelity of behavior plan implementation relies on effective collaboration between team members (Coffey & Horner, 2012) and requires administrative support (McIntosh et. al, 2013).

For school teams to support students who demonstrate significant behaviors, addressing the barriers presented in this paper is critical. Developing and nurturing a schoolwide inclusive culture is foundational for bridging the gap between what is required by law (IDEA 2004) and how it is enacted in schools. Building this foundation should begin at the college and university level in educator and school leadership preparation programs. Doing so effectively may require an innovative approach that incorporates interdisciplinary education in which all team members learn together. Future research could include the effectiveness of interdisciplinary coursework for: 1) school teams' fidelity of implementation of behavior plans and supports in school settings and 2) whether it results in a reduction in students who demonstrate significant behaviors in schools.

Implications for Practice

The findings in this study were not new or novel, however they do present additional context and nuance for how Institutions of Higher Education (IHEs) and schools might address

the barriers to implementing behavior interventions and plans in schools. Key findings from this study that are pertinent to teacher preparation programs include: 1) all educators need more explicit teaching and modeling of evidence-based practices for supporting students with significant behaviors in classrooms; 2) all educators need real classroom experiences in which teacher candidates practice evidence-based practices with feedback provided by experts such as school psychologists, behavior specialists, and mentors; 3) include interdisciplinary coursework and activities in which general education teachers, special education teachers, and future administrators can learn together what inclusive practices look like and how to implement them in schools; and 4) develop coursework that teach effective interdisciplinary teaming principles for schoolwide teams and incorporate these courses into all school related professional programs.

In addition to learning these components in preparation programs, Institutions of Higher Education could partner with local schools to develop on-going training in evidence-based practices for supporting students with significant behaviors in schools. This training could include where to locate evidence-based practices, how to operationalize them for use with students in classrooms, and practice with feedback. These research to practice partnerships could provide ongoing research on evidence-based practices for supporting students who demonstrate significant behaviors and bridge the research to practice gap for schools.

Limitations

This study included 13 participants from three states in the upper Midwest in four focus groups, so results should not be generalized to the whole special education teacher population. Rather, it provides contextual information about the causes that contribute to the needs identified on a needs assessment survey conducted with North Dakota special educators. The three educational practices identified in the survey were: interdisciplinary teaming to support students'

problem behaviors, the development of function-based behavior plans, and the use of data to inform decision-making related to students' behavior plans.

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Appendix

Focus Group Recruitment Email

Dear Special Educator,

You are invited to participate in a study conducted by the University of North Dakota (UND). We would like to learn about ***the types*** of support or training ***you need*** to be successful in helping your students. Our study will look at how we can help special educators and school teams support their students with significant behavioral needs.

We will be conducting focus groups to listen to teachers' perceptions of educational practices identified in a statewide survey related to working with students' problem behaviors. Understanding your perceptions of these practices can help teacher preparation and continuing education programs in supporting special education teachers and candidates. Your participation will help us to understand how to provide more appropriate training.

If you choose to participate in this study, you will attend one focus group session with 4-7 other special educators and a member of the UND research team over Zoom. Sessions will last 60-90 minutes, and we will work with you to find a session that fits your schedule. All sessions will be recorded, and all information will be kept anonymous. The information we get from this study will be used to identify and develop pre-service and continuing education training. This can help support teachers and candidates with supporting students who use problem behaviors.

If you would like to participate in this study, please complete this brief screening survey. Because we are limited for how many participants we can accept for the study, the survey will help us to identify participants from all eight regions of North Dakota so that we can build focus groups that include representation from both rural and urban schools, as well as equitable distribution of elementary, middle, and secondary educators.

Thank you so much for your consideration,

Tamara Hoffer

Link to screening survey: https://und.yul1.qualtrics.com/jfe/preview/previewId/2b081f70-1b21-44a4-875c-fec75e24ffd4/SV_bCuCwyy25a510c6?Q_CHL=preview&Q_SurveyVersionID=

Focus Group Participant Email

Hello!

Thank you for accepting the invitation to participate in our upcoming study about the types of supports you need to work with your students who use problem behaviors. We are grateful for your time and excited to spend time with you!

Here are the next steps for participating in this focus group study:

1) Here is the Focus Group schedule. Please choose two dates are available to participate from the schedule below:

2) To participate in this study, you will need to sign the Informed Consent document. Prior to signing the document, we will need to meet briefly for 10-15 minutes on Zoom to go over any questions you may have about the study. I have attached the informed consent document to this email so that you can read it before we meet.

3) After you have chosen your dates to participate, please email those dates to tamara.waldal@und.edu and set up a short appointment to go over and sign the Informed Consent document.

4) Once we receive your digitally signed informed consent, a member of the UND research team will contact you to schedule which focus group you will attend. Once we have decided on the focus group you will be attending, we will send you a calendar invite in Outlook with the necessary meeting links.

5) Our focus group session will take place using Zoom. The focus group session will be 60-90 minutes. During the focus group, a research team member will ask the group a series of questions about special education teacher training and support needs. The research team members will focus on educational practices used to support students' problematic behaviors. You will be able to skip any questions that you prefer not to answer.

6) The meeting will be recorded using Zoom videoconferencing software. After the focus group, the audio will be transcribed to text and the video and audio recording destroyed. Your name and other identifying information, like your school or district, will be coded so that the information you provide during the focus group cannot be linked to you.

Thank you so much for your participation and we look forward to your participation in this study! Tamara Hoffer
Informed Consent DocuSign Link:
https://bit.ly/informed-consent-focus-groups
Focus Group Schedule

Focus Group	Date	Time
Group #1	Monday, December 5th G1P1, G1P2, G1P3	4:30 – 6:00 p.m. central time
Group #2	Tuesday, December 6th G2P1, G2P2, G2P3, G2P4, G2P5	4:30 – 6:00 p.m. central time
Group #3	Monday, December 12th G5P1, G5P2, G5P3	4:30 – 6:00 p.m. central time
Group #4	Wednesday, December 14th G7P1, G7P2	4:30 – 6:00 p.m. central time

Meetings to sign the Informed Consent document for each participant were conducted prior to focus group sessions and done individually with each participant.

Investigator's private UND Zoom link:
https://und.zoom.us/j/6126037513

Focus Group Scripts and Questions
Thank you for participating in our study about the types of supports you need to work with your students who use problem behaviors. We are grateful for your time and excited to spend time with you!

From these focus groups, we would like to learn about the types of support or training you need to be successful in helping your students who use problem behaviors. We want to know your perceptions of educational practices identified in a statewide survey related to working with students' problem behaviors. Understanding your perceptions of these practices can help teacher preparation and continuing education programs in supporting special education teachers and candidates. Your participation will also help us to understand how to provide more appropriate training.

Informed Consent Statement: During this session, I will ask the group a series of questions about special education teacher training and support needs. The focus will be on some educational practices that are used to support students' problematic behaviors. You will be able to skip any questions that you prefer not to answer. This meeting will be recorded using Zoom and after the focus group is completed, the audio will be transcribed to text and the video recording deleted. Your name and other identifying information will be coded so that any information you provide during the focus group cannot be linked to you. We do not anticipate any harm to you from participating in this research, however if you experience any discomfort because of the burden of time or answering questions publicly in this group, you can choose to leave the group at any time.

Instructions for Focus Group: There are no right or wrong answers to the focus group questions. We want to hear many different viewpoints and would like to hear from everyone. We hope you can be honest even when your responses may not agree with the rest of the group. In respect for

each other, we ask that only one individual speak at a time in the group and that responses made by all participants be kept confidential.

Focus Group Questions:

7) Describe the kinds of support you currently receive for working with students who use problem behaviors. (Prompts: Can you tell me more about that?) Secondary: Describe the support you currently receive for developing and implementing behavior interventions in your school.

8) What have been your experiences with the supports you have received? Secondary: can you give an example of the type/s of support that might achieve different outcomes or experiences?

9) Describe the types of training you have received for managing student behaviors. Can be formal (college) or informal (professional development) training activities. Secondary: can you give an example of the types of training or activities that have prepared you or would have prepared you to manage student behaviors?

10) What do you perceive to be the most significant barrier to implementing behavior interventions and plans in your school? Secondary: What ideas do you have for overcoming this barrier?

Concluding Script: Thank you so much for your participation in our study. As soon as all focus groups have been completed, we will summarize our data findings and email them to you for review. You will have one week to review the data findings and give us feedback. All personal identifying information and school names will be removed from the findings. Data may be compared by region and participant demographics such as elementary, middle, and secondary teachers. Also, comparisons may be made between urban and rural teachers.

CHAPTER V

CONCLUSION

Preparing special education teacher candidates for the complexities of the field has become a daunting task for many higher education institutions, especially in online asynchronous delivery formats. Teacher candidates must provide evidence-based interventions and support to students with disabilities as soon as they begin teaching. Implementing evidence-based behavior supports for students who demonstrate significant behaviors require multiple team members that include general educators, special educators, administrators, and other related services personnel. Despite significant research supporting evidence-based practices, school teams struggle to implement such practices successfully in classrooms and school settings. With growing demands and responsibilities placed on teachers to educate students in inclusive environments, it is imperative that educator preparation programs be intentional in bridging this research to practice gap to improve student outcomes and teacher self-efficacy to support students with who demonstrate significant behaviors in schools.

The critical nationwide teacher shortage (Billingsley et al., 2019), puts increasing pressure on educator preparation programs to train candidates in less time. Therefore, intentional focus on what matters most, when preparing educators for real classrooms is necessary. This project demonstrates that intentionality of course design, content, and teaching presence behaviors can engage education candidates to think critically, problem solve, and innovate in their schools. To achieve these objectives and bridge the research to practice gap, instructors

must explicitly teach candidates how to conduct research on evidence-based practices and operationalize those practices with students in their classrooms. Special and general educators must also be given opportunities to learn together so that they will apply an interdisciplinary teaming approach when implementing evidence-based interventions to support students who demonstrate significant behaviors.

Research should translate to the field and transform practice, but this does not happen without intentionality. To address the key findings presented in this project, the author proposes future research, an interdisciplinary course framework, and interdisciplinary collaborative education labs to transform how educators, education leaders, and related professionals are prepared to work in schools.

Research Behavior Intervention Plan Implementation and Fidelity in Schools

Teachers across all grade levels and subject areas report student misbehavior as a cause for major stress and that they need additional training in behavior management in inclusive settings to keep students who demonstrate significant behaviors in the classroom (Embse et. al. 2019). One purpose of the focus group study was to help the researcher identify critical areas of training needed in special educator preparation programs for supporting students with significant behaviors. Similar to previous literature reviewed, the results of this study identified 1) lack of qualified personnel, 2) lack of general educator knowledge of special education, 3) limited access to qualified professional personnel, 4) special education teachers having too many responsibilities and being spread too thin, and 5) the 'your sped kids, not my responsibility' anti-inclusive beliefs as the most significant barriers to team collaboration and implementing behavior supports in the participants' schools. These findings suggest that behavior intervention implementation failure in schools may be a result of low fidelity (inconsistency among team

members) from inadequate team member training, insufficient collaboration, and lack of belief in inclusion or evidence-based practices. For school teams to support students who demonstrate significant behaviors, addressing the barriers shared by participants in this study are critical.

The author proposes an extension of the research included in this project that explores the phenomenon of failed behavior plan implementation in schools, especially those in North Dakota. Future research could include a multi-study approach. First, an artifact analysis of behavior intervention plans across the state that measure student progress, fidelity of implementation, and plan meeting frequency. These are just a few factors that may be helpful in determining the statewide behavior plan implementation success rate. Next, conducting a mixed methods statewide survey of school teams that include special educators, general educators, administrators, related services personnel, and coordinators could be helpful to identify lacking knowledge, missing skills, resources needed, training needed, and other factors that are barriers to implementation. Finally, conducting direct observations of school teams implementing behavior intervention plans would be helpful to rate fidelity and to identify factors that differentiate successful and unsuccessful plans.

Special education personnel are more likely to leave the field when they feel inadequately prepared for service (Mason-Williams et al., 2020), and are less likely to leave the field when they feel connected with schools that promote inclusion, multi-disciplinary teaming, and collective responsibility for all students (Billingsley et al., 2019). The results of the proposed future studies can be helpful to educator preparation programs in developing targeted interdisciplinary training, support, mentorship, and coaching to help school teams improve behavior and prevent teacher attrition.

Interdisciplinary Course Framework

In the focus group study, the researcher gained insight into the interdisciplinary supports special educators needed to successfully implement evidence-based behavior interventions. At the crux of the study was collaboration and consistency across team members. According to Billingsley (et al., 2019), special educators are less likely to leave the field when they feel connected with schools that promote inclusion, multi-disciplinary teaming, and collective responsibility for all students. To address this issue head on, the author of this project proposes interdisciplinary coursework across special education, general education, school leadership, and related professionals' preparation programs. The author hypothesizes that interdisciplinary coursework can: 1) demonstrate what inclusive practices look like and how to implement them in schools; 2) teach effective interdisciplinary teaming principles for schoolwide teams; and 3) by learning together, consistency of intervention implementation will improve. The author argues that these interdisciplinary course activities could be incorporated into all school related professional preparation programs.

Collaboration is imperative to the success of organizations, but collaboration in higher education has become even more critical because of dwindling resources. Universities must do more with less and work smarter. To do so efficiently, the author proposes an interdisciplinary learning module framework that includes interdisciplinary collaborative lessons. For example, behavior intervention plan and implementation require a multi-disciplinary team approach. The special educator, general education teacher/s, school principal, social worker, counselor, school psychologist, and behavior interventionist might all be part of a student's team. Related services personnel that may also contribute include occupational therapists, physical therapists, and speech pathologists. To mimic this teaming approach and provide a real-world experience

without requiring additional resources, programs across the College of Education at the University of North Dakota can utilize the Interdisciplinary Collaborative Lab learning module framework.

This framework can be used in any college or university where disciplines intersect in society. For example, one intersection point is behavior plan development and implementation in PK-12 schools. Inter-disciplinary coursework for this example could include: 1) selecting a course from each discipline for which learning about supporting students with behavior problems is identified (example: special education behavior management, general education methods course, applied behavior analysis course, and school leadership course); 2) A three-week period within the semester is identified for students to complete the interdisciplinary module and course instructors collaborate to develop the learning module (example: semester weeks six, seven, and eight in all selected courses); and 3) students in all selected courses work through a three-part learning module consisting of an asynchronous content module, a synchronous interdisciplinary collaborative lab, and a guided lab reflection activity. Utilizing this framework can help colleges and universities provide interdisciplinary coursework in flexible, innovative, engaging, efficient, and inexpensive ways. Furthermore, this framework allows for engagement of learners to connect, collaborate, and solve real-world problems together under the guidance of faculty and research experts.

Situated within the interdisciplinary learning module proposed by the author, is the Interdisciplinary Collaborative Lab. Specific to the research conducted in this paper, completing an interdisciplinary collaborative activity can improve team member training, collaboration, and support beliefs in inclusion and evidence-based practices. For example, an Interdisciplinary Collaborative Lab for team members in the following disciplines who implement behavior

intervention plans could include special education, general education, education leadership, and applied behavior analysis. The structure of the lab would consist of all students completing a learning module in their specific discipline courses prior to the lab, as described in the framework above. The learning module could be asynchronous and include foundational knowledge of inclusive practices, behavior intervention plans, and the roles and responsibilities of team members. Next, all students from participating courses would be placed in interdisciplinary groups to collaboratively develop a behavior intervention and implementation plan for a case-study during a recorded group Zoom session. Each student will contribute based on their discipline role and responsibility. Finally, all students will complete a guided reflection activity either with their instructor (discipline specific), or with their interdisciplinary groups (inter-disciplinary). Reflections should include feedback that is discipline specific (i.e., evidence-based interventions). This intentional collaborative experiential approach can help future school teams to support students who demonstrate significant behaviors and address the barriers shared by participants in in the focus groups.

Educator preparation programs must approach the research to practice gap with intentionality. Training must emphasize evidence-based practices and be designed and taught with intentionality, in an engaging community of inquiry that solves real classroom and school problems. The research in this body of work can help educator, special educator, and school leadership preparation programs to design online courses and programs with intentionality to better prepare future educators and leaders for the complexities of teaching and supporting students with significant behavioral needs in schools.

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