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Facilitating Interprofessional Collaboration to Support AAC Users: A Feasibility and Impact Study

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ABSTRACT

This study explores the efficacy and challenges of interprofessional learning opportunities for preservice special education teachers and speech-language pathologists through a novel Interprofessional Summit. Employing a mixed-methods approach, the research examined how interdisciplinary collaboration impacts the preparation of these professionals for working with augmentative and alternative communication (AAC) communicators in inclusive settings. Data were collected from a small convenience sample of participants at a single university, focusing on the process rather than outcomes of interprofessional engagement. Through content and thematic analysis of summit facilitation guides, participant artifacts, and post-summit surveys, findings revealed high levels of engagement and fidelity to the summit's objectives. Mentor feedback underscored the participants' consistent collaboration, effective problem-solving, and pragmatic considerations for AAC communicators' needs. The study highlights the potential of interprofessional education in fostering comprehensive educational strategies that address the holistic needs of AAC communicators. The study contributes to the dialogue on overcoming institutional and structural barriers to effective interprofessional collaboration in educator preparation programs.

KEYWORDS

interprofessional education, augmentative and alternative communication, collaboration

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Creating inclusive learning and social opportunities for augmentative and alternative communication (AAC) communicators requires shared commitments to equity and inclusion from the multidisciplinary teams (MDT) responsible for the individualized education programs (IEP) of AAC communicators (Light et al., 2019). In practice, the development and implementation of inclusive programming responsive to AAC communicators requires collaboration between professionals within MDTs who have diverse discipline specific knowledge and skills for addressing the holistic (e.g., academic, behavioral, social) needs of the AAC communicators. These MDTs play a crucial role in creating, executing, and monitoring programs that enable AAC communicators to engage fully and effectively in school. Despite the critical roles these teams play, many special education teachers (SETs) and speech-language pathologists (SLPs), whose expertise often puts them in lead roles in MDTs supporting AAC communicators, have expressed a lack of preparedness for working in an interdisciplinary fashion when designing programming for AAC communicators (Andzik et al., 2019; Costigan & Light, 2010).

Research indicates that the skills, knowledge, and beliefs of professionals working with AAC communicators can greatly differ based on the type of preparation program they attend and their specific discipline (Da Font et al., 2022). However, targeted developmental activities have been shown to positively influence educators' attitudes and self-efficacy, leading to significant improvements in professional practices (Archibald, 2017). For those at the early stages of their careers, such as early-career SETs and SLPs, the attitudes, beliefs, and competencies necessary for facilitating collaborative and inclusive opportunities for AAC communicators are often shaped by their initial training programs (Martin & Mulvihill, 2019; Robinson & Soto, 2021). Unfortunately, most of this training occurs within discipline-specific courses siloed in specific departments, resulting in a lack of comprehensive, interdisciplinary experiences for pre-service professionals. This siloed approach to training leaves early-career SETs and SLPs ill-equipped for team-based AAC programming in diverse educational settings and maintains the siloed approach to service provision in schools (Armstrong et al., 2023). Consequently, this contributes to the variability in inclusive opportunities available to AAC users.

Interprofessional Collaboration

The siloed effect of AAC service delivery can be attributed to how systems of education and teacher preparation are organized. While educators recognize the importance of interdisciplinary collaboration (Leatherman & Wegner, 2022), barriers to effective collaboration persist in schools and preparation programs (Chung & Stoner, 2016). In fact, most SLPs and SETs highlight that the structure of school systems (i.e., limited common planning time, space to deliver services, ongoing professional development opportunities) limits their ability to collaborate with other stakeholders and forces them to deliver services in segregated settings (Brandel, 2020). To seamlessly deliver services to students in inclusive environments, leveraging the expertise of each member of an interprofessional team, the utilization of collaborative planning, service delivery, and progress monitoring is crucial to providing well-rounded services to AAC communicators (Forbes, 2018). Highlighted in special education as a high-leverage practice (HLP) for inclusive classrooms (see McLeskey et al., 2019), and long recognized as a core feature of AAC service delivery for SLPs (Beukelman & Mirenda, 2013), interprofessional collaboration has a solid empirical backing for supporting both the planning and implementation of inclusive learning opportunities for AAC

communicators (Blackstone et al., 2007). For AAC communicators, interdisciplinary planning facilitates collaborative service delivery models that allow teams to simultaneously address students' communicative, academic, behavioral, and social needs alongside their peers in inclusive settings (Iacono et al., 2022).

Establishing effective interdisciplinary teams is not as simple as providing multiple educators with shared time and space. Educators need to have the skills and dispositions to navigate the unique constraints of the school systems in which they work (Armstrong et al., 2023). To ensure that all educators enter the workforce with the skills and dispositions necessary for interprofessional collaboration, pre-service preparation programs play a key role in modeling the expectation of interprofessional collaboration and in allowing candidates to get to know the roles and expertise of other professionals (Robinson & Soto, 2021). As it relates to interprofessional collaboration to support the needs of AAC communicators, much of the pre-professional literature focuses on the benefits of collaboration and training of SLPs, SETs, occupational therapists (OT), and physical therapists (PT; Costigan & Light, 2010). However, given the constraints of licensure and credentialing requirements, candidates in these programs are offered discipline-specific courses of study, where they rarely if ever interact with candidates outside of their program as part of their pre-service training. To break down siloes in practice, preparation programs need to engage in this work in the pre-service phase.

Offering Interprofessional Learning Opportunities in Preparation Programs

Offering collaborative learning experiences in preparation programs requires thoughtful planning and implementation. While collaborative options such as cross-listing courses, co-delivering lectures, offering common coursework, shared fieldwork placements, or even having shared assignments across courses are available options, preparation programs need to consider multiple licensure requirements, university policies, available instructional space, and course offerings when looking to offer collaborative learning opportunities for candidates in multiple programs. Thoughtful planning around common learning objectives that lead to the acquisition of knowledge and skills to be applied in fieldwork is necessary. As multiple programs may be responsible for documenting licensure and credentialing requirements to multiple and different entities (i.e., state boards, professional organizations) it is also important to ensure that all interprofessional learning opportunities consider the shared responsibility for delivering and documenting key pre-licensure learning activities for candidates in each program represented. While other approaches (see Greene & Esposito, 2023) have offered collaborative learning opportunities between pre-service candidates and veteran mentors in field placements, little evidence exists for how to offer collaborative learning opportunities for pre-service candidates that addresses the logistical and licensure barriers previously discussed. The following will detail how these considerations were made and how a pilot interprofessional learning opportunity was afforded to pre-service SLPs and SETs. The purpose of this article is to describe the design-based research process used in this pilot project and to highlight how replication and expansion of interprofessional collaboration in pre-service settings can be accomplished.

Research Questions

To guide the development and analysis of the interprofessional learning opportunity (an Interprofessional Summit), the following research questions were investigated:

1. Did participants engage with the Interprofessional Summit as planned?
2. What factors impacted how the Interprofessional Summit was offered and utilized?
3. What benefits were noticed from offering the Interprofessional Summit?

Researcher Positionality

Given the increasing awareness (see Boveda & Annamma, 2023; Murphy et al., 2020) of the role that researcher positionality plays in the conducting and dissemination of research, we offer the following truths about the authors to underscore our commitment to reflexivity and the dynamic interplay between our identities and our research. We believe that acknowledging and embracing our diverse perspectives enriches our work, enabling us to contribute meaningful insights into the facilitation of interprofessional learning among future special education teachers and speech-language pathologists.

As a diverse team of researchers with backgrounds in special education, speech-language pathology, and interprofessional education, our collective experiences and disciplinary perspectives deeply inform our investigation into supporting interprofessional learning for special education teachers and speech-language pathologists. We represent a wide range of cultural, academic, and professional backgrounds, and hold identities as practicing educators and clinicians, as well as academic researchers. This diversity within our team brings a rich array of insights into the challenges and opportunities of interprofessional education, while also introducing a variety of biases and assumptions related to our respective fields.

We acknowledge that our personal and professional experiences may influence our interpretations and interactions with participants. We each have direct experience in the fields we study, providing perspectives that can enhance understanding and empathy but may also lead to assumptions that require critical examination. We also offer an outsider's view of disciplines not within our scope of practice, offering fresh perspectives but necessitating careful navigation of unfamiliar contexts. To address and mitigate any potential biases, we have engaged in continuous dialogue about our positionality, reflecting on how our backgrounds influence our approach to the research. We have employed strategies such as collaborative analysis and triangulation of data sources to ensure that our findings are robust and reflective of multiple viewpoints. Moreover, we have striven to maintain transparency with our participants about our diverse positions and how these may impact the research process and outcomes.

Method

Design-based research (DBR) was utilized as the foundational methodological framework to systematically explore the constraints and affordances of offering interprofessional learning opportunities to SET and SLP candidates. DBR is characterized by its iterative cycles of design, enactment, analysis, and redesign, which are aimed at understanding and improving educational practices in real-world settings (Wang & Hannafin, 2005). This approach was particularly suited to our work of developing effective interprofessional learning experiences, as it allowed for the iterative development of these experiences based on participant feedback and observed outcomes.

The DBR process commenced with the identification of practical problems faced by preservice professionals in special education and speech-language pathology, informed by literature reviews and consultations with subject matter experts. This was followed by the collaborative design of interprofessional learning activities intended to address these problems,

integrating theoretical principles from both fields to create a comprehensive learning experience. The implementation of these activities was closely monitored, allowing for real-time adjustments and the collection of qualitative and quantitative data on participant engagement, learning outcomes, and perceived value.

Parallel to the DBR framework, a detailed process analysis was conducted to examine the dynamics of interprofessional collaboration among participants. This analysis focused on identifying specific instances where the design of the learning activities either facilitated or hindered effective interprofessional interaction. Data come from investigator notes, participant surveys, and artifacts collected from the summit to help trace the evolution of collaborative skills, communication patterns, and mutual understanding between SET and SLP candidates. Combined, each methodological approach enabled the identification of key constraints, such as differing professional languages, assumptions about roles and responsibilities, and variations in problem-solving approaches. Conversely, it also highlighted affordances that promoted effective collaboration, including structured reflection sessions, the explicit articulation of shared goals, and the creation of a supportive learning environment that encouraged risk-taking and mutual respect.

Participants

This study utilized a convenience sample of participants enrolled in accredited training programs from a university in the Bay Area of California. The participants comprised two distinct groups: special education teaching candidates and speech-language pathologist candidates, all of whom were in the latter stages of their professional training programs.

Participants were recruited through announcements made through department communication channels and courses specific to each discipline, followed by an informational session where the study's purpose, potential benefits, and confidentiality measures were discussed. Inclusion criteria required that participants be enrolled in either a special education or speech-language pathology program at the participating university and have completed their program coursework and field placements. The authors received informed consent prior to the implementation of the interprofessional learning experience, adhering to the ethical guidelines set by the Institutional Review Board (IRB).

The final sample (n=19) consisted of eight special education teaching candidates and 11 speech-language pathologist candidates. Participants were all recruited from the Departments of Special Education and Communicative Disorders and Sciences from a Hispanic Serving Institution (HSI) and Asian American and Native American Pacific Islander-Serving Institution (AANAPISI). Specific demographic information was not collected from this sample for several reasons. In deciding not to collect demographic information such as age, race, or gender in our study, we prioritized ethical considerations, the relevance to our research objectives, and the desire to protect participant privacy and reduce potential harm. Given our focus on universal processes and outcomes, and mindful of the cultural sensitivities and privacy concerns of our participants, we determined that such data were not essential to achieving our research goals. This approach also aimed to simplify the participation process, thereby encouraging a higher response rate while ensuring our research practices remained respectful and ethically responsible.

Procedures

Organized around the shared goal of preparing pre-service educators to collaboratively provide services to students with complex communication needs (CCN) who use AAC, faculty in special education and speech language pathology departments sought to develop pragmatic interprofessional learning opportunities for candidates in both programs that increased their capacity to plan and deliver comprehensive AAC services in the least restrictive environment (LRE). This pilot project aimed to explore the affordances and constraints of offering collaborative learning opportunities to students from multiple university educator preparation programs and to determine how candidates across two disciplines could learn collaboratively to address the needs of AAC communicators. While many professionals on both the research and practice sides of delivering AAC services will note that this work is crucial, there are many logistical factors to consider when offering learning opportunities that address the credentialing and licensure requirements of candidates in multiple programs. In the development of the interprofessional summit offered to candidates in Special Education and Communicative Disorders and Sciences, the development process was guided by the consideration of the affordances (i.e., range of possibilities) and constraints (i.e., limitations) for offering the summit and achieving the goals established for it. Ultimately, the planning process was guided by the goal of ensuring that a comfortable medium was met between the constraints and affordances. While options like developing a cross-listed course focused on collaboration was considered the most robust and rigorous possibility, constraints such as timelines and funding for collaborative planning time and content creation ultimately played a role in the offering of this pilot summit.

In the planning process, it cannot be overemphasized that funding for this pilot project was a crucial affordance as it facilitated many of the planning and data collection features of the project. Should other programs desire to replicate this project or endeavor toward similar work, the role of startup funding that can help bring in additional stakeholders, support faculty planning, and recruit participants cannot go unrecognized. Additionally, recognizing, addressing, and accepting the barriers to offering a collaborative learning experience in a preparation program is just as crucial. In university settings, instructor time, compensation or time allotments, course size, and sustainability of course offerings are essential considerations to make when looking to offer learning opportunities across departments. Specific considerations for this project included (i) identifying the most critical content to cover in this pilot, including which students at what specific points in their programs, (ii) finding a time and place to offer the learning opportunities to candidates in both programs without compromising licensure and credentialing requirements, (iii) recruiting students from both programs to participate in a new learning model, and (iv) identifying the benefits for participation in the new collaborative learning model.

Ultimately, it was decided that soon-to-be graduates of each program would be invited to participate in an optional summer learning workshop. While factors that contributed to this will be explored throughout the article, this offering was deemed appropriate given the authors abbreviated timelines for implementation and to ensure that the pilot offering did not detract from candidates' preparation. To measure the outcomes of the pilot offering, permission was granted by the authors' institutional review board (IRB), to conduct a feasibility study and process analysis of the pilot Interprofessional Summit.

Interprofessional Summit Design

The interprofessional summit occurred in three stages, (i) development, (ii) implementation, and (iii) evaluation, and were aligned to stages of a process evaluation to support formative assessment

across all stages of program design. Each stage included multiple iterative design steps and data collection and/or analysis to support ongoing program improvement. A core goal of this pilot was to collect initial data that could inform the development of additional interdisciplinary learning opportunities that prepare candidates for interdisciplinary collaboration in the least restrictive environment (LRE) for AAC users and to expand this work in pragmatic ways in university preparation programs.

Phase I Development

Project development involved a multiphase design process that included mixed methods data collection through surveys, focus groups, and case study development that all occurred with community stakeholder input. In the first phase of the development process, the faculty involved in the project developed common goals for the summit, identified core areas of collaboration and AAC service delivery within their respective licensure and credentialing organizations, and recruited local SETs and SLPs to provide input and feedback on the current state of interprofessional collaboration in schools and areas for improvement that could be addressed by educator preparation programs. In total, the pre-summit survey contained 21 questions that asked candidates to rank their confidence on a five-point scale (5 = *very confident*; 1 = *not confident at all*) on prompts related to interdisciplinary collaboration skills. Table 1 outlines the format and results of the survey.

Table 1. Pre-Summit Survey

Survey Question	Mean	SD
I feel prepared to share decision-making power with other professionals.	2.11	0.97
I feel all professionals have respect and trust for each others work.	2.21	0.89
I feel my work facilitates open and honest collaboration.	1.74	0.55
I feel prepared to make adjustments to my role based on collaborative reviews with other professionals.	1.95	0.83
I feel prepared to engage in problem solving and conflict resolution with other professionals.	2.26	1.12
I know strategies for developing trust with other professionals.	2.42	0.82
I know strategies for sharing knowledge and insights with other professionals.	2.47	0.75
I feel that I know the boundaries of my own responsibilities and the responsibilities of other professionals.	2.26	1.02
I feel prepared to apply interdisciplinary collaboration across multiple settings in my work.	2.37	0.81
I feel prepared to divide responsibilities for meeting goals with other professionals.	2.21	0.83
I feel prepared to encourage communication with other stakeholders and professionals.	2.05	0.60
I feel prepared to develop agreed upon conflict resolution strategies.	2.26	0.70
I feel prepared to engage in problem solving and conflict resolution with other professionals.	2.79	1.10
I feel prepared to be the lead of an interdisciplinary team.	2.05	0.83
I feel prepared to include students and families in the interdisciplinary decision making process.	1.74	0.64

What emerged from this data were themes that pointed to (i) common planning time, (ii) caseload size, and (iii) early career unfamiliarity with other professionals' expertise as limiting factors to effective collaboration in AAC service planning and interventions. Follow-up discussions were held with smaller groups to identify solutions that preparation programs could offer to the barriers discussed in the initial focus groups. Participants in the subsequent focus groups identified common areas that could be addressed collaboratively in preparation programs, but identified being able to define roles between professionals in AAC interventions and knowing strategies for effectively planning the inclusion of AAC users in academic and social opportunities in the LRE as the most critical capacities to address in shared preparation experiences.

To help design a learning opportunity that could be offered to candidates in both programs, practicing SETs and SLPs who had participated in the second round of focus groups were recruited as summit mentors and tasked with creating case studies focused on addressing a problem of practice for students who use AAC in inclusive classrooms (i.e., environments serving peers with and without disabilities, including AAC communicators). These case studies were then used to facilitate a planning conversation between the participating pre-service candidates. The creators of the case studies were then invited to participate in the implementation of the summit as mentors.

Phase II Needs Assessment

While the practicing SLPs and SETs who participated in the pre-summit focus groups highlighted the importance of interdisciplinary collaboration and the barriers to participation in interdisciplinary teams in practice, it was equally important that the summit consider the needs of the candidates who would participate in the summit. Before their participation, candidates were asked to complete a three-section survey that was administered electronically and measured their confidence in the areas highlighted as crucial for interdisciplinary collaboration by the focus groups.

In general, the findings of our pre-summit survey indicate that even after completing their coursework, candidates were not fully confident in their ability to effectively participate in interdisciplinary teams. Research (Voss et al., 2022), has suggested that—beyond knowledge—other factors influence new educators' adoption and implementation of new approaches and pedagogy including profession beliefs or philosophies (Rubie-Davies et al., 2011) and attitudes (Swain et al., 2012). Preparation programs, then, must support educators in reflecting on their professional dispositions and beliefs (e.g., negative views of one's skills or capacity for collaboration), and facilitate the development of pedagogical skills to meet the diverse needs of the students they serve (Swain et al., 2012). To support the candidates participating in the summit and calibrate their attitudes toward interdisciplinary practice and collaboration, the summit was designed to allow candidates across programs to get to know each other and share their perspectives on supporting AAC communicators in inclusive environments. The summit utilized a problem-based learning (PBL) opportunity to collaboratively plan and reflect on the enactment of interdisciplinary approaches to developing programming for AAC communicators. PBL is a widely used team-based simulation teaching strategy used in various professional preparation fields (e.g., medicine, education, science) that focuses on using novel problems of practice, requiring team members to apply their knowledge and skills to develop solutions for the problems posed. In this summit, SET and SLP candidate participants were guided through their PBL scenario by the recruited and trained in-service community professional, tasked with developing inclusive AAC programming solutions for their case study student.

Phase III- Summit Implementation

With feedback and input from participants, the interprofessional summit was offered as a synchronous online event. To address the areas identified by focus groups as early career barriers to interprofessional collaboration, the summit was broken into three distinct activities. At the start of the gathering, participants were invited to get to know one another in rotating break-out rooms and given speed networking prompts to get to know each other personally and in their soon-to-be professional roles. In the initial conversations, candidates were asked to introduce themselves and state their program of study. Candidates were placed into breakout rooms in teams with their summit mentors and asked to share what they knew of the roles of other professionals in supporting AAC communicators and what they knew about AAC services themselves. Following these networking activities, the faculty leading the project provided a brief 30-minute co-taught lecture reviewing high-utility practices for collaborative planning and AAC service delivery that the participating candidates had received in their programs. Following the lecture, candidates were split into four work groups consisting of SLP and SET candidates, assigned a summit mentor and case study, and provided time to work through a consideration and planning document (See Table 2) with their summit mentors.

Table 2. Summit Case Study Guiding Document

Consideration #1	Do you have any reservations or hesitations as it relates to including this student in academic and social opportunities with their peers? Why or why not?
Consideration #2	What strategies would you employ to support this student's participation in general education academics and social opportunities?
Consideration #3	What roles would a special educator play in creating access to general education environments? What role would an SLP play?
Consideration #4	Would any environmental adjustments need to be made to traditional general education classrooms to support the academic, social, and behavioral well being of the case study student? Who would be responsible for making these accommodations or changes if they are necessary? If they are not necessary, why not?
Consideration #5	How could speech services be embedded into this student's other activities throughout the day? For example, how could special educators and SLPs work together to deliver academic or social skill instruction in combination with speech services? What would it take for you- or what would you need- to engage in this type of service delivery in small or large group settings outside of 1 on 1 settings?
Consideration #6	Do you feel prepared to engage in interdisciplinary service delivery? If not, what would help you feel more prepared to support this student in collaboration with another education professional?

Instruments

To address the study's objectives, a comprehensive set of instruments was utilized across three distinct research questions. These instruments were selected to capture a broad range of qualitative data, ensuring a thorough analysis of the summit's outcomes.

Research Question 1: Engagement with the Interprofessional Summit

Notes and Artifacts

Summit case study forms provided concrete evidence of participants' engagement with structured activities.

Researcher Notes

Observations of participant engagement, enthusiasm, and collaboration were documented comprehensively.

Facilitator Guides

Reviews of guides used by facilitators helped understand the intended structure and flow of the summit, facilitating comparisons with actual participant engagement.

Research Question 2: Factors Impacting the Summit's Offering and Utilization

Investigator Notes

Notes were taken during all phases of summit implementation, documenting logistics, participant engagement, and challenges.

Artifacts

Materials used by participants, such as worksheets and reflection prompts, were collected to understand resource utilization.

Debrief Meeting Notes

Insights into the summit's implementation and challenges were gathered from debrief meetings with mentors.

Research Question 3: Benefits of Offering the Interprofessional Summit

Investigator Notes

Insights noted during the summit from the participants, as well as observation of participant engagement were collected.

Artifacts

Reflection prompts were analyzed to measure benefits.

Qualitative Coding of Participant Artifacts

Reflective essays, project plans, and feedback forms were coded to identify themes related to learning outcomes and professional growth. These instruments facilitated a multi-faceted

understanding of the Interprofessional Summit's implementation, engagement strategies, and outcomes. Through detailed analysis, the study aims to provide insights into the effectiveness of interprofessional learning experiences in professional education.

Analysis

The data collected through the specified instruments were systematically analyzed to address the three research questions that guided this study. This section outlines the analytical methods employed for each type of data and presents the outcomes of the Interprofessional Summit.

Analysis of Engagement (Research Question 1)

Data from notes, artifacts, researcher observations, and facilitator guides were analyzed using content analysis. This approach allowed for the identification of patterns and themes related to participant engagement. Levels of engagement were quantified where feasible, and deviations from planned activities were noted, highlighting indicators of participant interest and interaction dynamics.

Factors Influencing Implementation and Utilization (Research Question 2)

Investigator notes, participant artifacts, and debrief meeting notes underwent thematic analysis. This qualitative technique facilitated the extraction of key factors that impacted the summit's delivery and effectiveness. Coding categories were developed both deductively, from the literature, and inductively, from the data itself, with special attention given to identifying barriers and facilitators to summit implementation and participation.

Identifying Benefits (Research Question 3)

The qualitative coding of participant artifacts was analyzed to ascertain the perceived benefits of the summit. Adopting a mixed-methods approach, qualitative data were thematically analyzed to uncover common themes regarding benefits, while quantitative survey data were statistically analyzed to determine prevalent trends and the significance of reported benefits. The integration of these data sources provided a comprehensive view of the summit's impact on participants' understanding and readiness for interprofessional practice.

Integration of Findings

The findings from each analysis were integrated to offer a holistic understanding of the Interprofessional Summit's implementation and outcomes. This process involved comparing and contrasting the themes identified across different data sources and research questions to construct a coherent narrative of the summit's effects. The analysis highlighted how engagement levels, implementation factors, and identified benefits interacted to influence the overall efficacy of interprofessional learning experiences. The analytical process was iterative, with preliminary findings reviewed by the research team to ensure accuracy and validity. Reflexivity was maintained throughout to mitigate researcher biases, and findings were critically examined in light of existing literature on interprofessional education.

Results

The analysis of the collected data revealed significant insights into participant engagement with the Interprofessional Summit, factors affecting its implementation and utilization, and the benefits perceived from its offering. Each research question is addressed in turn, presenting the findings derived from the various instruments used in the study.

Engagement with the Interprofessional Summit

Analysis of notes, artifacts, and facilitator guides revealed that participants engaged with the Interprofessional Summit as planned. Content analysis indicated high levels of interaction with the case study forms, as evidenced by detailed responses and thoughtful reflections. Researcher notes highlighted instances of active participation and collaboration among participants, and ease of material implementation by summit mentors suggesting a strong engagement with and ease of implementation of the summit activities.

Quantitative Findings

The quantitative analysis revealed exceptional levels of engagement and adherence to the planned activities of the Interprofessional Summit. All participating groups (100%) successfully completed their summit facilitation guides, demonstrating comprehensive engagement with the structured activities provided. This completion rate indicates a universal commitment to the summit's process and objectives among the participants. Furthermore, fidelity of implementation, as assessed through the review of facilitator guidance documents, was maintained at 100% across all sessions and groups. This indicates that the facilitators were able to adhere strictly to the intended activities and delivery methods, ensuring that the educational experiences were consistent and aligned with the summit's goals. Such high fidelity of implementation underscores the effectiveness of the summit's design and the facilitators' preparedness and adherence to the established protocols.

Factors Impacting the Summit's Offering and Utilization

Thematic analysis of investigator notes, participant artifacts, and debrief meeting notes identified several factors influencing the summit's effectiveness. Key barriers included logistical challenges and varying levels of prior interprofessional experience among participants. Specifically, it was noted several times that despite the time given at the beginning of the summit to get to know each other and the professional roles and knowledge of each other, a portion of the PBL sessions were spent clarifying roles and responsibilities for generating solutions to the problems presented. Conversely, facilitators to successful implementation included the structured design of activities and the supportive role of summit mentors. The investigators noted that across all sessions and groups the facilitators and participants utilized the structured outline of the materials and activities to progress as planned.

Mentor Feedback

Mentor feedback provided valuable insights into the dynamics of participant collaboration and the effectiveness of problem-solving strategies, particularly in the context of supporting AAC communicators in inclusive settings. Mentors noted consistent collaboration among participants, highlighting their ability to identify and collaboratively address complex problems. This collaborative approach facilitated the development of innovative strategies tailored to the unique academic and social needs of AAC communicators. Mentor observations that came out consistently during debrief meetings included: (a) consistent collaboration, where all mentors reported that participants consistently demonstrated collaborative behaviors, working together effectively to pool knowledge and skills, (b) collaborative problem identification and solving where teams were praised by each mentor for their systematic approach to identifying challenges faced by AAC communicators and collaboratively devising practical, context-sensitive solutions (c) AAC Communicator Considerations, mentor emphasis was placed on the thoughtful consideration given to the individual needs of AAC communicators. Mentors highlighted participants' awareness and responsiveness to the dual aspects of academic achievement and social integration in inclusive environments as well. Solutions proposed by participants for AAC communicators were consistently characterized by the mentors as comprehensive, reflecting a deep understanding of the necessity for tailored approaches in inclusive education settings. This feedback underscores the participants' engagement with the core principles of interprofessional collaboration and their commitment to inclusivity and effective support for AAC communicators, pointing to some progress towards preparing future professionals for collaborative, inclusive practice.

Benefits of Offering the Interprofessional Summit

The qualitative analysis of participant artifacts illuminated the benefits of the summit, revealing a profound impact on the participants' professional development and collaborative competencies. Qualitative coding of the data gathered from an in-depth examination of the four groups' case study and summit facilitation forms, uncovered themes related to enhanced understanding of interprofessional roles, increased readiness for collaborative practice, and significant personal and professional growth. Notably, across all groups, there was a consistent emphasis on pragmatic considerations for supporting AAC communicators in inclusive environments. The analysis highlighted the groups' thoughtful deliberation on communication strategies, social integration tactics, academic participation, and the crafting of realistic and poignant accommodations. These considerations were not merely theoretical but were grounded in a deep understanding of the everyday realities faced by AAC communicators in educational settings.

Participants demonstrated a keen awareness of the multifaceted nature of inclusion, recognizing that effective support extends beyond academic achievement to encompass social belonging and active participation in all aspects of school life. The strategies developed by the groups reflected a holistic approach to inclusion, ensuring that AAC communicators are not only present in the classroom but are also engaged, valued, and understood members of the school community.

The attention to pragmatic considerations for inclusion showcased in the case studies and facilitation forms was emblematic of the summit's success in fostering a nuanced understanding of interprofessional collaboration. It was evident that participants left the summit not only with

enhanced theoretical knowledge but also with practical skills and a readiness to implement meaningful accommodations in their future professional practice. This readiness was further underscored by the participants' reported growth, both personally and professionally, highlighting the summit's role in preparing them for the complexities and rewards of collaborative, inclusive education.

Integration of Findings

The integrated analysis of the data provided a comprehensive view of the Interprofessional Summit's impact. Participant engagement was high, and while certain challenges were noted, the overall implementation was successful in achieving the summit's objectives and were credited to the planning and systematic nature of the summit. The benefits reported by participants underscore the value of such interprofessional learning opportunities in preparing future professionals serving AAC communicators for collaborative practice.

Discussion

There are several challenges to moving forward with any interdisciplinary learning opportunities. First, we acknowledge that training preservice professionals to enact inclusive, high-quality learning experiences for all students is but one component in a large, complex ecosystem of educator training. Sustained change requires structural and institutional policy changes, as asking teachers to change their beliefs and practices remains limited “so long as their schools are constrained by the factory-model designs of a century ago, rooted in layers of laws and regulations that hold them in place” (Darling-Hammond, 2022).

Interdisciplinary experiences are undeniably essential in equipping pre-service professionals for the diverse and collaborative landscape they will navigate in their careers. However, the persistent barriers to implementing these learning opportunities cannot be overlooked. Existing research underscores the pivotal role of multidisciplinary teams, especially special educators and speech-language pathologists (SLPs), in addressing the comprehensive needs of students with complex communication needs (CCN) who require augmentative and alternative communication (AAC). Despite recognizing the importance of their role, these professionals often report feeling unprepared to develop and implement comprehensive programs for this population, facing significant challenges in collaborative service delivery within school-based settings as part of multidisciplinary teams (MDTs).

The barriers to effective interprofessional preparation at the pre-service level are multifaceted, encompassing the need to (a) align courses or learning experiences with the licensure and/or credentialing standards of multiple professional programs, (b) allocate resources effectively across collaborative learning initiatives, (c) navigate university logistics and policies for offering joint coursework, and (d) provide meaningful application opportunities through fieldwork or aligned course assignments. These challenges necessitate a concerted effort from educational institutions to rethink and restructure how interprofessional learning opportunities are conceptualized and delivered.

This project and the accompanying interprofessional summit aimed to address these issues by showcasing pragmatic ways to foster interprofessional learning. By successfully engaging participants in collaborative problem-solving and inclusive practice discussions, the summit highlighted the potential for interprofessional education to bridge the gap between theory and

practice. However, for such initiatives to have a lasting impact, preparation programs must undertake significant efforts to remove barriers to enactment. This includes advocating for policy changes that support interdisciplinary collaboration, reallocating resources to prioritize interprofessional learning, and reimagining curriculum design to better integrate collaborative skills training.

Furthermore, the findings from our study suggest that preparation programs should not only focus on overcoming logistical and structural barriers but also aim to cultivate a culture that values and supports interprofessional collaboration. This cultural shift is essential for preparing future educators and SLPs who are not just capable of working within multidisciplinary teams but are also committed to doing so in ways that enhance the educational experiences and outcomes of students with CCN. While the path to integrating effective interprofessional learning opportunities into pre-service education programs is fraught with challenges, the potential benefits for future educators, professionals, and the students they serve are immense. It is incumbent upon educational leaders, policymakers, and the broader educational community to embrace and advocate for these necessary changes, ensuring that the next generation of educators is fully equipped to meet the diverse needs of all students in inclusive settings.

Limitations

This study, while providing valuable insights into interprofessional learning opportunities for preservice special education teachers and speech-language pathologists, is subject to several limitations. Firstly, the small sample size may limit the generalizability of the findings. The participants were drawn from a single university, representing a convenience sample that may not fully capture the diversity of experiences and perspectives found in broader educational settings. Additionally, our focus was primarily on the process of implementing interprofessional learning opportunities rather than the outcomes. While this emphasis on process provides important procedural insights, it leaves questions regarding the long-term impact and effectiveness of such programs on participants' professional practices and student outcomes.

Future research should aim to address the limitations identified in this study. Expanding the sample size and including participants from multiple universities or regions could enhance the generalizability of the findings. Future studies could also benefit from a more diverse participant pool, encompassing a wider range of preservice educators and professionals to capture a broader spectrum of interdisciplinary experiences. Moreover, investigating the long-term outcomes of interprofessional learning opportunities on participants' readiness and efficacy in their professional roles, as well as the academic and social achievements of AAC communicators, would provide valuable insights into the effectiveness of such programs. Longitudinal studies that track participants and their students over time could offer compelling evidence of the sustained impact of interprofessional collaboration in educational settings.

Conclusion

Despite its limitations, this study contributes to the growing body of literature on the importance of interprofessional education in preparing preservice special education teachers and speech-language pathologists. By highlighting the challenges and potentials of such programs, the study underscores the need for educational institutions to innovate and overcome structural barriers to support effective interprofessional collaboration. The findings suggest that while the path to

integrating comprehensive interprofessional learning opportunities into educator preparation programs is complex, the benefits—ranging from enhanced professional readiness to improved outcomes for students with complex communication needs—justify the effort required. As the educational landscape continues to evolve, fostering environments that support such collaboration will be crucial for preparing future educators to meet the diverse needs of all students. Embracing interprofessional education as a cornerstone of teacher and clinician preparation represents a significant step forward in achieving this goal.

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