

Professional Learning Preferences of Inclusive Postsecondary Education (IPSE) Program Directors: Implications for Professional Development Design

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Abstract

Inclusive Postsecondary Education (IPSE) programs support students with intellectual and developmental disabilities as they navigate college and prepare for adult life. Existing literature on learning needs and preferences focuses on students, but not program staff. Research is needed to ensure that professional development is tailored to staff's learning needs and preferences. This qualitative study explored the learning needs and preferences of IPSE program directors through 12 individual interviews. Altogether, participants expressed a desire for professional development that fits seamlessly into their work and highlighted the importance of flexible formats, peer interaction, and other practical tools.

Keywords: inclusive postsecondary education, professional development, adult learning, universal design for learning

Plain Language Summary

- Inclusive Postsecondary Education (IPSE) programs help students with intellectual and developmental disabilities (IDD) attend college, take classes alongside other students, and prepare for jobs and adult life.
- The staff and directors who run these programs are important. Little is known about how they prefer to learn or what kinds of training help them most.
- In this study, we wanted to learn how directors of IPSE programs prefer to learn.
- **What we did in this study:** We interviewed 12 program directors from different programs across the United States.
 - We asked them how they like to learn, what helps them stay focused, and what makes training useful for their work.
- **Findings:**
 - Many directors liked learning that lets them work at their own pace but also gives them time to talk and learn with others.

- Short lessons and real-life examples were important because they have busy schedules.
 - They also liked learning that includes discussion and problem-solving. Directors shared that training should be easy to use and understand.
 - They liked videos, visuals, step-by-step tools, and support features such as captions and transcripts.
- **Conclusion:** These findings show how IPSE staff like to learn so they can do their best work supporting students with IDD.

Inclusive Postsecondary Education (IPSE) programs were established to provide meaningful access to higher education for students with intellectual and developmental disabilities (IDD) who may not qualify for traditional admissions pathways or who require alternative means of participation in college life (Grigal & Papay, 2018; Grigal et al., 2022). IPSE programs support students' enrollment in inclusive academic courses, engagement with peers across campus, and progress toward certificates or other postsecondary credentials (Stinnett et al., 2023). A growing body of research demonstrates that students who enroll in IPSE programs experience gains across adaptive domains, including communication, social interaction, and daily living skills, which contribute to improved post-school outcomes related to employment, independent living, and community participation (Butler et al., 2016; Grigal et al., 2023; Lee & Taylor, 2022).

IPSE staff play a central role in facilitating these outcomes through instruction, coordination, and student support. Although IPSE programs have expanded nationwide over the past two decades, with approximately 312-336 programs currently operating in the United States, little empirical research has examined the professional learning needs or experiences of IPSE staff. As IPSE programs continue to grow, access to high-quality professional development is essential to ensure that staff have the knowledge and skills necessary to implement inclusive practices, thereby supporting program quality, student outcomes, and long-term sustainability. Prior research indicates that professional development can meaningfully influence practice; for example, professionals in instructional support roles who attend professional development are more likely to adapt and improve their instructional approaches (Casale et al., 2011).

Although IPSE staff often engage in instructional activities, program staff come from varied academic and professional backgrounds, such as education, social work, or disability services. To account for this professional diversity, this study is grounded in adult learning theory, which provides a broad framework spanning professional training and experiences. Rooted in Knowles' theory of andragogy, adult learning theory posits that adults are self-directed learners who draw on prior experience, are motivated by relevance and immediate application to professional roles, prefer problem-centered learning, and are driven primarily by internal motivation (Knowles et al., 2020). Broader adult learning research also suggests that adults prefer hands-on, interactive opportunities over passive lecture-based formats (Darling-Hammond et al., 2017; Gibson & Brooks, 2012).

Yet, without a clear understanding of IPSE staff members' specific learning preferences, professional development may not be designed as effectively as intended. Research in adult education indicates that gathering feedback from adults about their professional development preferences increases the effectiveness of such learning experiences (Desimone & Garet, 2015). Given the multifaceted and interdisciplinary responsibilities of IPSE staff, including instruction, student support, and interdepartmental collaboration, understanding their learning preferences is particularly important. Accordingly, the purpose of this study was to explore the learning preferences of IPSE staff as a foundation for designing responsive and effective professional development.

Understanding preferences for online learning is particularly relevant given the increased reliance on asynchronous and hybrid learning formats following the COVID-19 pandemic (Trust & Whalen, 2020). Within online learning environments, adults often prefer reflective and independent learning modes that leverage the flexibility of online learning while also providing interaction and engagement (Hussain, 2018). These preferences align with Cognitive Load Theory, which asserts that instructional design should account for the limited capacity of working memory by reducing extraneous cognitive load and supporting efficient processing of new information (Sweller et al., 2011). Accordingly, effective online professional learning must balance autonomy, structure, and social connection. Notably, none of the research has been conducted with IPSE staff, so it remains unclear whether these norms generalize to IPSE professionals whose roles may not be grounded in formal educator preparation.

Beyond delivery format, research consistently highlights the value of interactive and practice-oriented professional learning. Studies across secondary transition and postsecondary education indicate that education-based professionals prefer professional development that incorporates modeling, guided practice, feedback, and opportunities for collaboration (Casale, 2011; Dengerink et al., 2015; Thompson et al., 2002). Traditional workshop-style professional development is often perceived as disconnected from day-to-day practice, whereas active and collaborative approaches are viewed as more relevant and applicable. For example, Casale (2011) found that teachers valued professional learning experiences that incorporated modeling, practice, and feedback opportunities, while more traditional workshop formats were often perceived as disconnected from real teaching scenarios. Similarly, Dengerink et al. (2015) reported that teachers preferred collaborative inquiry, reflective dialogue, and co-learning experiences over theoretical instruction. Postsecondary and technical instructors have also expressed a preference for hands-on, active learning over primarily theoretical instruction (Thompson et al., 2002). These findings are consistent with adult learning theory, which emphasizes self-directed, problem-centered learning that supports immediate application to real-world contexts (Ambrose et al., 2010; Knowles et al., 2020). Although research has documented learning preferences in education-based settings, far less is known about whether these preferences extend to IPSE staff. It remains unclear whether these professional learning preferences extend to IPSE program staff, whose roles span multiple institutional systems.

Alongside considerations of format and delivery, professional development design must align with the needs and contexts of its audience. Research indicates that education-

based professionals value collaborative, problem-focused learning that reflects their instructional environments (Casale, 2011; Dengerink et al., 2015). Likewise, Darling-Hammond et al. (2017) found that professional development is most effective when educators engage collaboratively in solving practice-based problems. Given that IPSE programs operate at the intersection of higher education, disability services, and workforce development, professional learning should integrate context-relevant content with collaborative, problem-solving approaches. By understanding the perspectives of IPSE staff about their needs, professional development can be tailored to meet their preferences and needs.

As with the students they support, IPSE staff require accessible professional development. Applying Universal Design for Learning (UDL) principles (CAST, 2024), professional development should foster engagement and collaboration, provide multiple formats and accessible features, and support planning, strategy development, and application in practice. Adults display substantial variability in cognitive and sensory learning preferences, which influence engagement, confidence, and modality preferences (Rosenfeld, 2008). Professional development that incorporates goal setting and planning, multiple modes of learning and expression, and varied means of engagement is well-aligned with the IPSE context, where staff roles are diverse and evolving. Collectively, this evidence suggests that professional development for IPSE staff should be experiential, accessible, and collaborative, offering sufficient flexibility to accommodate diverse learning preferences while remaining tightly aligned with staff roles and programmatic contexts. However, research is needed to discern whether IPSE staff themselves value UDL principles in their own learning.

While the broader extant literature has clear implications to inform professional development and training for adult learners, none of the studies were situated within IPSEs. Given the unique roles of IPSE staff and their relative newness, it is critical to garner their feedback to ensure that professional development matches their needs, strengths, and learning preferences. Without an understanding of how IPSE staff prefer to learn, professional development efforts may fail to meet their needs and/or the nature of their work. Therefore, the present study seeks to address this gap by examining the following research question: Among IPSE staff, what learning methods and strategies are identified as most effective?

Method

This study was part of a larger landscape analysis of IPSE program directors, which included a national online survey to identify broad trends, followed by interviews to explore underlying factors. Given that the focus of the present study was directors' professional learning preferences, only the individual interview data were included in this analysis.

Positionality

The research team consisted of three IPSE staff members, two graduate assistants, and one faculty member. All members identify as female; five members identify as White

and one as Latina. One team member identifies as a person with a disability, two team members have siblings with Down syndrome, and two have children with disabilities. Our perspectives as researchers are informed by our personal histories, professional values, and lived experiences, which inevitably shape how we approach this work. Several team members bring extensive expertise in inclusive postsecondary education, a background that may influence the interpretation of participant narratives. To address potential bias, we implemented systematic analytic procedures, engaged in collaborative coding and interpretation, and incorporated member-checking practices to prioritize and authentically represent participant voices throughout the research process.

Participants

Twelve participants took part in this study. All participants were IPSE program directors, each representing a unique state in the United States. Inclusion criteria required participants to serve as directors of IPSE programs recognized by the Think College network. Eight participants (66.7%) worked in urban settings, and four (33.3%) worked in suburban settings. Institution types varied: One participant (8.3%) was employed at a vocational, technical, or trade school; one (8.3%) at a two-year community college; nine (75%) at four-year public colleges or universities; and one (8.3%) at a four-year private college or university. See Table 1.

Recruitment

Participants were recruited following completion of the national landscape analysis survey. At the end of the survey, respondents were invited to indicate interest in participating in an interview to provide additional information. Of the 15 individuals who expressed interest, 12 completed all required steps to participate. Three individuals did not participate due to nonresponse or scheduling conflicts. Participation was voluntary; no incentives were provided. To protect confidentiality, identifiers were removed from transcripts and pseudonyms were assigned in all analytic materials. Recruitment concluded once thematic redundancy was identified, as determined through ongoing analytic discussion among the research team.

Procedures

Following Institutional Review Board (IRB) approval, data collection occurred in two phases. The landscape survey was administered via REDCap, a secure, university-hosted platform, between May and August 2025, with electronic informed consent obtained prior to survey completion. Participants who volunteered for interviews provided separate informed consent through REDCap. Interviews were conducted in June and July 2025, ranged from 43 to 70 minutes, were audio-recorded with participant permission, and professionally transcribed verbatim.

Table 1*Participant Pseudonym Information*

Pseudonym	Institution	Setting	Duration	Region	Decade Program Started	CTP status	Number of Students served Annually
Harper	4-yr Public	Urban	3-yr	Midwest	2010s	Approved	27
Rowan	4-yr Public	Suburban	4-yr	West	2020s	In Development	41
Ellis	4-yr Public	Urban	Varies	Southeast	2010s	Approved	30
Finley	4-yr Public	Urban	2-yr	Southeast	2010s	Approved	16
Skyler	4-yr Public	Urban	Varies	Midwest	2000s	Approved	80
Peyton	4-yr Public	Suburban	4-yr	Southeast	2010s	Approved	40
Cameron	4-yr Public	Urban	4-yr	Northeast	2020s	Not Approved	7
Reese	4-yr Public	Urban	Varies	Southeast	2010s	Approved	22
Blake	4-yr Public	Urban	Other*	Midwest	2020s	In Development	0
Kendall	2-yr Community College	Suburban	2-yr	West	2010s	Approved	53
Hayden	4-yr Private	Suburban	2-yr	Northeast	2020s	Approved	15
Drew	Technical/Vocational	Urban	1-yr	Southeast	2020s	Approved	20

Note. *Other means the Director oversees a two and four-year program

Measures

The interview protocol was developed to explore professional learning preferences related to online professional development among IPSE program directors. Protocol questions were informed by the literature on inclusive postsecondary education (e.g., Grigal et al., 2022; Lee & Taylor, 2022; Stinnett et al., 2023) and adult learning theory (e.g., Ambrose et al., 2010; Darling-Hammond et al., 2017; Gibson & Brooks, 2012; Knowles et al., 2020). To ensure relevance and clarity, the initial protocol was reviewed by IPSE professionals with experience designing and implementing professional development. The semi-structured protocol included 32 open-ended questions addressing preferred learning formats, engagement strategies, and content priorities for online professional development. The protocol was piloted with one IPSE program director, and minor revisions were made, including separating multi-part questions into distinct items. The full interview protocol is provided in Appendix A.

Procedural Fidelity

Procedural fidelity was maintained through the use of a semi-structured interview protocol designed to ensure consistency across participants while allowing for natural variation in responses. Interviewers followed a scripted guide containing core questions and prompts. Fidelity checks were conducted through independent review of Zoom recordings and interviewer field notes to verify alignment with the protocol. All interviews demonstrated full adherence to the protocol, with 100% of protocol questions asked of each participant.

Data Analysis

Data analysis occurred in multiple stages using an emergent design approach (Patton, 2002). Three researchers independently reviewed an initial set of three interview transcripts and applied open codes to data segments aligned with the research question focused on professional learning preferences. The team met to compare codes, resolve discrepancies, and develop an initial coding framework consisting of discrete codes and broader categories. Discrepancies in coding were resolved through discussion until consensus was reached. Two researchers then independently coded the remaining nine interviews, meeting regularly to review emerging codes and ensure consistency. As analysis progressed, related codes were clustered into preliminary categories representing broader patterns (e.g., delivery formats, engagement strategies, and content priorities). For example, delivery-format codes were grouped into categories such as “asynchronous preferred,” “hybrid preferred,” and “synchronous not preferred.” Categories were refined through constant comparison and iterative discussion and were ultimately synthesized into higher-order themes that explained patterns across the dataset with specific attention to how IPSE program directors prefer to engage in professional learning. Final themes were well defined, internally consistent, and clearly differentiated.

Trustworthiness

Multiple strategies were employed to enhance the credibility and dependability of the findings (Brantlinger et al., 2005). Member checking was conducted by providing participants with interview summaries and inviting them to validate, revise, or expand upon the content. All 12 participants responded. Six participants did not request any changes and the remaining six participants offered clarifications or additional details, which were incorporated into the final dataset. In addition, reflexive discussions occurred throughout the analytic process to examine how researchers' personal and professional experiences might influence coding and theme development. Together, these strategies strengthened the rigor of the qualitative analysis and ensured that findings accurately reflected participants' perspectives.

Results

Preference for Hybrid, Efficient Learning Formats

Most participants expressed interest in hybrid learning models that integrate asynchronous flexibility with synchronous interaction. As adult learners balancing continuing education with full-time employment, participants emphasized the flexibility and autonomy offered by asynchronous courses while still valuing peer engagement. Participants perceived hybrid learning formats as offering structure and practicality, meeting the dual need for flexibility and collaboration. Skyler, a director at a public four-year institution in an urban Midwestern city, explained, "Asynchronous is nice because you can fit your schedule ... [but] synchronous courses ... have some ability to have some discourse and conversation ... that combination is nice."

In addition to a preference for hybrid learning formats, all participants expressed a desire for efficient learning. Participants noted challenges with text-only materials and "busy work," reporting that these formats often required extra effort and did not support deep engagement. Longer formats, or those requiring extended focus without breaks, were described as impractical and difficult to complete. Participants preferred short, concise lessons, citing the demands of their professional roles. Blake, who directs a state IPSE technical assistance program in the Midwest, shared, "I think we all max out, especially when learning and working at the same time. Shorter bursts help you learn and retain more."

Interaction and Engagement

Some participants highlighted the importance of interactive elements to sustain attention and enhance learning. Many participants referenced their experiences with online graduate programs or professional certifications, noting that static approaches (e.g., text-only documents or slide decks) were insufficient. Ellis, a director in Southeastern urban setting at a public four-year institution, shared, "If it's just all written and documents and Powerpoints, and there's no like audio or visual or presentation or video, I check out." Instead, some participants identified specific tools that enhance engagement, including videos, pop-up surveys, and word clouds. These tools were considered effective for

fostering interaction and breaking monotony. Peer-to-peer engagement was also highly valued, with participants citing benefits of work groups, Question & Answer sessions, and small group activities for building community and sharing expertise. Cameron, a director in a Northeastern urban setting at a four-year public institution, reflected, “Really being able to bounce back and forth between each other after going through the material has always been great.” Similarly, Finley, who directs a program at a four-year public university in an urban Southeastern city, emphasized the collaborative nature of IPSE networks, “That’s what I love about IPSE programs, is [that we are able] to work together and learn from each other about what’s working or what’s not.”

Several participants stressed the need for coaching through technical assistance as a complement to interactive learning. Participants noted the support from personnel within a national technical assistance center, Think College, and many cited the benefits of career development training provided by Virginia Commonwealth University. Ellis described how technical assistance support has been instrumental to professional learning and practice in the past, sharing,

But throughout ... I met directly with a coordinator for technical assistance to talk about the logistics of my program in particular, and like my particular pain points ... I was also getting the direct support to help me think through how the concepts make sense for my program.

Overall, participants suggested that both technological and social interactive learning methods are vital to maintain engagement and support meaningful learning among IPSE professionals.

Content and Instructional Design

Multiple Formats

Participants described a wide range of preferred instructional elements to support learning, including videos, infographics, visuals, timelines, and listening activities. This suggests that delivery should be multimodal (i.e., combining text, visuals, and audio). Kendall, a director at a two-year community college in a suburban Western setting, explained, “I like multiple ways to get at the topic in case one way is not working for me.” Multimodal learning was perceived as essential for maintaining engagement and reinforcing knowledge by avoiding repetition of a single modality. Drew, a director at a technical college in an urban Southeastern setting, explained, “It helps to have different methods of introducing the topic – maybe reading, someone explaining it, and a video. Multiple formats really help.” Participants emphasized that multimodal learning helps maintain engagement and reinforce knowledge by avoiding repetition of a single modality.

Practical Tools

Most participants preferred practical, clearly structured resources providing step-by-step guidance. Examples included checklists, flowcharts, roadmaps, process maps,

and real-life examples. Reese, a director at a four-year public institution in an urban Southeastern setting, emphasized the importance of procedural tools, sharing,

I do like if it's broken down step by step, like a flow chart or something. But ... if there are steps that you have to do and they're just buried in a paragraph – I don't do well with that.

Similarly, Rowan, an IPSE director at a four-year public institution in an urban Pacific West setting, highlighted how clear instructions foster confidence, stating he needs “tons of explicit directions ... and you know the explicit kind of steps of what to do. So, you feel empowered.” These findings suggest the need for structured, user-friendly tools that promote clarity and empower directors to implement complex processes effectively.

Applied Learning

Participants indicated a strong preference for applied learning strategies, incorporating real-world tasks or practical exercise that enable them to translate theoretical knowledge into practice. Participants valued opportunities to learn from scenarios, collaborative problem-solving activities, and case studies, reflecting a desire to be equipped for both anticipated and unforeseen challenges. Hayden, a director at a four-year private institution in a suburban Northeastern setting, emphasized the value of problem-solving opportunities, stating:

I like ... case studies where you have to work with other people to respond to different things. I do like group projects, when you have to ... come up with a solution to some sort of problem, or support, something. I feel like I learned well that way.

Similarly, Peyton, who directs a program at a four-year public school in the Suburban Southeast shared how application exercises supported learning in her graduate studies: “We would talk through a concept and then look at a video of educators managing a behavior with a student, so kind of, here's what you need to do, and here's how it looks.” These preferences suggest that participants value professional development that integrates clear guidance with interactive, applied learning opportunities to enhance practical skill-building and confidence.

Universal Design: Accessibility and Flexibility

Accessible Design

Participants emphasized the importance of learning platforms that are accessible, flexible, and usable. They described prior challenges with technology malfunctions, complex learning management systems (LMSs), and the absence of accessibility features such as closed captioning and plain language. Accessibility features were described as essential for supporting comprehension and engagement in online environments. Participants cited examples such as adaptable tools, closed captioning, plain language supplementation, summaries, and screen reader compatibility, allowing learners to engage with content in multiple ways and at an individual pace. Cameron shared:

I love to be able to hit the settings in my internet browser and have my computer just read me the web page, if possible. I do usually go back and reread some of it after it's read to me, so that I make sure that I'm absorbing it well.

Similarly, Finley explained how having accessible materials reduces cognitive burden during live sessions, stating, “[If] I know I’m getting the transcript ... I can focus on you without having to try to scribble down my notes and know that I can go back and review it again later.” These perspectives demonstrate that accessibility features are critical components of effective online learning for many participants.

Customization and Open Access to Layered Resources

Participants also noted the importance of customizable tools and resources that allow learners to determine the depth and timing of their engagement, rather than requiring uniform participation across all content. Specifically, directors valued professional development models that provide core materials for all participants while also offering optional supplemental resources for those who wish to explore topics in greater depth. This approach was described as supporting learner autonomy while accommodating differences in prior knowledge, role responsibilities, and available time. Reese elaborated:

I find it helpful having links to additional resources where you can dive deeper into specific areas of interest. That’s a great way to address the diversity of learners, someone might only need a brief overview, while someone else with no background might want to explore more deeply.

In addition to supporting individual learning preferences, participants highlighted the importance of tangible, reusable resources for organizational continuity and knowledge retention. Directors expressed concern about institutional vulnerability when knowledge resides with a single individual who completed a training or course. Instead, they emphasized the need for staff to have shared, accessible materials that could support turnover or role changes. Harper, a director at a four-year public institution in an urban Midwestern setting, explained:

I’m a firm believer of not having one person being the only one with the knowledge, like what if something happened to me, or if I change roles or whatnot, I don't want the program to suffer because I took the knowledge with me, so I'd want some kind of tangible item or items that the team could have access to.

Collectively, these perspectives suggest that effective professional development for IPSE staff should incorporate customized, layered access for both individualized learning pathways and broader organizational resilience.

Discussion

The purpose of this study was to examine the learning preferences of IPSE staff. While prior research has documented the benefits of IPSE participation for students with IDD (Butler et al., 2016; Grigal et al., 2023; Lee & Taylor, 2022), comparatively little attention has been paid to the learning needs of the professionals responsible for implementing these programs. The findings of this study both align with and extend the broader adult learning and professional development literature, while highlighting considerations unique to the IPSE context. Across interviews, directors consistently emphasized efficiency, flexibility, accessibility, and peer connection as central features of effective professional learning. Collectively, these findings underscore the need for intentional, evidence-informed approaches to professional development that reflect the realities of IPSE staff roles and responsibilities.

Participants emphasized the need for streamlined, practical learning opportunities that allow for choice and autonomy. Reflecting the demands of their professional workloads, they highlighted the importance of brevity and effective use of time. These preferences align with Cognitive Load Theory, which asserts that instructional design should account for the limitations of working memory (Sweller et al., 2011), and with adult learning theory, which emphasizes self-directed learning supporting real-world problem-solving (Ambrose et al., 2010; Knowles et al., 2020). For IPSE programs, professional development should focus on clearly defined learning goals and immediately applicable strategies rather than comprehensive or content-heavy trainings. Accordingly, professional development for IPSE staff should incorporate evidence-based strategies such as segmenting content, signaling key information to reduce extraneous cognitive load, and providing opportunities for active processing and application, thereby facilitating knowledge transfer and practical problem-solving (Ambrose et al., 2010; Mayer & Moreno, 2003). Embedding these design principles may increase participation, reduce training fatigue, and improve the likelihood that professional learning translates into programmatic practice.

Participants highlighted the importance of UDL features and a strong preference for flexible, multimodal learning. Interviews revealed that participants desire the ability to learn at their own pace, play to their individual strengths, and utilize accessibility tools such as closed captioning and transcripts. These preferences align with existing UDL principles, which emphasize providing multiple engagement strategies, diverse representation, and varied modes of action/expression through setting clear objectives (Bastoni et al., 2023). The UDL Guidelines (CAST, 2024) provide a framework by clarifying learning goals, incorporating multiple media formats, and allowing varied ways for participants to demonstrate learning. While many IPSEs already embed UDL and offer accessible digital resources, greater intentionality in applying UDL to professional development may enhance staff engagement, confidence, and instructional coherence across programs, while simultaneously modeling inclusive practices that staff are expected to implement.

Despite a desire for efficient, self-paced learning experiences, participants stressed the importance of peer learning. In educational settings, peer learning

communities have been shown to build collaboration, promote reflective practice, enhance professional satisfaction, and improve pedagogy (Christensen, 2025; Hudson, 2024; Vescio et al., 2008). While courses, conferences, and professional associations provide mechanisms for peer sharing, IPSE programs may also benefit from approaches that do not rely heavily on departmental budgets or grant allocations. Sustainable strategies could include offering indirect technical assistance through customized resources, leveraging AI-assisted tools, and expanding social media or virtual networks for IPSE staff, organized around shared goals or outcomes (e.g., accreditation, apprenticeship development, risk management). These findings indicate that intentionally structured, goal-oriented communities of practice may serve as a cost-effective mechanism for ongoing professional learning in IPSEs, supporting collaboration and program sustainability even in resource-constrained contexts.

Limitations

While our study offers new insight into the learning preferences of IPSE staff, limitations should be considered when interpreting interview results. First, the sample size includes 12 directors from unique states, primarily from urban and suburban settings, leaving rural perspectives underrepresented. This may limit the transferability of findings to IPSE staff nationwide. Second, we used purposive sampling of participants volunteering for interviews after completing a national survey, introducing potential self-selection bias. Third, demographic information was not collected, as the study prioritized program-level characteristics and implementation processes over individual attributes. As a result, we cannot determine whether participant characteristics such as age, gender, race/ethnicity, or socioeconomic status may have influenced the findings. Fourth, only interview data were analyzed. Inclusion of quantitative data could provide additional context or triangulation. Fifth, members of the research team have professional experience in IPSEs and personal connections to disability. Despite implementing bias-reduction strategies, these experiences may have influenced interpretation of the results.

Directions for Future Research and Implications for Practice

Looking ahead, as online learning, artificial intelligence (AI), and professional certifications continue to evolve, longitudinal studies could examine changes in learning needs over time, informing the development of more sustainable professional development models. Specifically, research may include building on the current study to revisit learning preferences and needs of IPSE staff annually. In this way, we can monitor trends in learning preferences over time. In addition to the advent of AI, IPSE programs are becoming increasingly common and, consequently, less novel (Andresen, 2024). Thus, any changes in learning preferences may not only reflect AI but also changes in IPSE programs becoming more common. By having longitudinal data, there can be a stronger pulse on learner needs such that professional development can be more immediately responsive to IPSE staff.

Future practice should prioritize the development of professional learning frameworks that are responsive to operational complexities inherent in the roles and responsibilities of IPSE staff. Training should utilize flexible, interactive delivery models

that offer both asynchronous autonomy with opportunities for engagement and peer collaboration. Applied learning strategies should be embedded to facilitate immediate translation into programmatic contexts, including case studies, problem-solving exercises, and practical resources such as checklists and process flowcharts. UDL principles should guide multimodal content delivery, articulate clear learning objectives, and offer multiple pathways for demonstrating mastery, while providing accessibility features such as captions, transcripts, and screen-reader compatibility. Finally, programs should leverage sustainable communities of practice and technical assistance infrastructures to support ongoing collaboration, knowledge exchange, and organizational resilience, even within resource-constrained environments.

Declarations

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Appendix A

Interview Protocol

Resource Development: Training Preferences

1. Describe the most effective ways you learn from online training.

Probes: *I would prefer:*

- Training from another IPSE program vs. A University/Center
 - Synchronous vs. Asynchronous
 - Interacting with others vs. Independent Learning
 - Scheduled vs. Self-paced
 - Longer lessons (several hours) vs. shorter lessons (30-60 minutes)
2. What challenges have you faced with online training in the past?
 3. How did you overcome them, or what would make the training more effective for you?

Resource Development: Suggested Features

1. What strategies or features of an online training program help you stay engaged?
2. Are there any specific tools or technologies you feel enhance your ability to learn effectively in online learning?
3. Share some examples of online training you enjoyed. Why? What parts were most helpful?
4. What types of materials or resources would be most helpful for your program if you chose to implement a registered apprenticeship program?

Wrap-Up

1. What other information would you like to share?
2. What questions do you have for us?