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What Types Of Professional Development Contribute To The Critical Skill Sets Of Education Professionals?

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Abstract

Professional development (PD) provides content knowledge, teaching tips, and resources to education administrators and direct-service staff. However, these experiences may seem irrelevant to the participants' ultimate job responsibilities. Our research sought to answer this question: *What types of professional development contribute to the critical skill sets of education professionals?* This mixed-methods study included a comprehensive literature review, an online survey, and two online focus groups. We offer the following recommendations.

- For PD participants supervisors, PD designers, and PD facilitators: Broaden one's definition of PD, employ self and external assessments, solicit and integrate participants' feedback, recognize that different PD experiences cultivate different skill sets, and enhance staff relationship-building skills through multiple PD opportunities.
- For PD researchers: Increase the depth and breadth of the study, expand the geographic reach of the study, and dig deeper into our data, analysis, and recommendations.

We hope that our research results in professional development opportunities that better prepare educators for their current and future job responsibilities.

Keywords
Professional development, education, training, employment preparation

Disciplines
Education

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Introduction

Professional development (PD) workshops and conferences are intended to provide important content knowledge, teaching tips, and access to resources; and allow educators to connect with and support one another. However, current sentiment has regarded these experiences to be irrelevant to the participants' current and future job responsibilities. For those seeking to cultivate particular skill sets, it would be useful to connect specific PD opportunities with important skill sets – such as those that correspond to important workplace responsibilities and expectations.

This research project sought to answer the following question: *What types of professional development contribute to the critical skill sets of education professionals?* This study utilized a mixed-methods approach that included a comprehensive literature review, an online survey, and two online focus groups. We did not seek to define professional development or identify the key elements of an effective professional development experience. However, we hope that by utilizing our findings:

1) PD participants and staff supervisors will make more informed and strategic PD choices.
2) PD designers and facilitators will create more purposeful and robust PD opportunities.
3) Additional researchers will build upon our work and generate further data that connects PD opportunities to professional attributes.

Literature Review

<u>Defining Professional Development</u>

To connect professional development experiences to workplace skill sets we first identified a definition of professional development. Many practitioners describe PD as being synonymous with formal workshops or conferences (Author, 2009). However, PD can also be defined more broadly. The National Staff Development Council (2009) defines professional development as 'a comprehensive, sustained, and intensive approach to improving teachers' and principals' effectiveness in raising student achievement.' For the purpose of this study, we used this comprehensive definition of educator professional development (Author, 2009):

'A spectrum of activities, resources, and supports that help practitioners work more effectively with or on behalf of children and youth. Professional development formats include workshops, conferences, technical assistance, apprenticeships, peer mentoring,

professional memberships, college coursework, and additional diverse offerings. Practitioners can be full-time staff, part-time staff, volunteers, teenagers, parents, or other non-staff members, provided that the PD experience culminates in supporting youth participants.'

By utilizing this expanded definition, we were able to identify additional PD experiences that cultivate professional skill sets.

Promising Practices in Professional Development

Much of the research pertaining to educator professional development focuses on the successful ingredients of specific interventions. Through a combination of studies, several PD promising practices emerge – those that participants rate as effective, contribute to acquiring new knowledges and skill sets, and result in implementation with their learners. These promising practices include instruction that is content-focused, incorporates active learning strategies, engages participants in collaborative activities, provides support from the subject expert, utilizes feedback and reflection, and is of an extended duration. ChildTrends (2009) emphasizes presenting information with a clear rationale for their importance, demonstrating new practices within the workshop session, offering opportunities for practice and feedback, and providing ongoing support and follow-up training. Additional research suggests that integrating curriculum-based professional learning also contributes to engagement and implementation. When PD instructors incorporate these core features, participants provide more positive feedback and demonstrate an increased willingness to utilize the PD content and strategies with their students.

However, additional studies recognize that it takes time for professionals to learn and/or improve specific skill sets, and conclude that implementing consistent professional development is critical to long-term improvement and success (Garet, 2001). A separate study demonstrated that educators often failed to utilize their professional development experiences and were confused regarding what type of PD opportunity would be relevant to their careers (Martin, Kragler, and Frazier, 2017).

Evaluating Professional Development

Guskey (2000), Killian (2002), and others advocate for a highly sophisticated approach to evaluating professional development for classroom teachers. In 'The Age of Our Accountability', Guskey (1998) states:

'For many years, educators have operated under the premise that professional development is good by definition, and therefore more is always better. If you want to improve your professional development program, the thinking goes, simply add a day or two. Today, however, we live in an age of accountability. Students are expected to meet higher standards, teachers are held accountable for student results, and professional developers are asked to show that what they do really matters.' (36)

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Guskey (1998) adds that:

> 'Good evaluations are the product of thoughtful planning, the ability to ask good questions, and a basic understanding about how to find valid answers. In many ways, they are simply the refinement of everyday thinking. Good evaluations provide information that is sound, meaningful, and sufficiently reliable to use in making thoughtful and responsible decisions about professional development processes and effects.'

Guskey's comments reflect the way in which staff, who are in charge of administering classroom teacher professional development, are beginning to comprehend and embrace evaluation. Based on the work of Kirkpatrick (Kauffman and Keller, 1994), Guskey (2000) proposes five levels of professional development evaluation: participant satisfaction, acquisition of new knowledge and skills, institutional support and integration, classroom application, and student impact.

Researchers simultaneously study PD measurement methods and strategies – the tools of assessment. The process of developing these assessment mechanisms is essential in observing the content delivery, recording changes in participant practices, evaluating student learning, and comparing results to previously set goals

Literature Review Summary

In summary, our literature review confirmed that there is ample research related to defining, listing the essential components of, and evaluating educator professional development. However, we were unable to find research that links specific PD experiences to cultivating important workplace skill sets, which reinforced the need for our own research study.

Materials and Methods - Online Survey

Survey Design and Distribution

To collect feedback, from educators regarding their PD experiences and workplace skill sets, we created an online survey. Before launching the survey, we distributed it to 15 colleagues and asked for feedback on the specific questions, as well as regarding the survey in general. A total of 11 individuals helped refine the survey. These individuals included staff who work in formal and informal education; are local as well as national colleagues, and are teachers, administrators, researchers, and PD providers.

Based on our colleagues' feedback, we finalized its online survey. It consisted of a total of 20 multiple-choice, Likert scale/rating, and essay questions. The survey was separated into four parts: 1) Demographic Information; 2) Skill set Proficiency; 3) PD Linked to Skill Sets; and 4) Additional Comments.

The survey was distributed through multiple professional networks and our monthly STEM Newsletter, and reached close to 1,000 recipients. The survey was advertised and open from April 19th to May 7th, 2021, and a total of 92 individuals submitted responses.

Demographics

Respondents were asked for demographic information including occupation, job responsibilities, years of experience in an education-related field, and highest level of education.

The majority of the survey respondents currently work in a K-12 school, a school district, or an intermediate unit (47.8 %) **(Figure 1).**

Figure 1 - Demographics

I currently work at or as part of a (Choose ALL that apply)
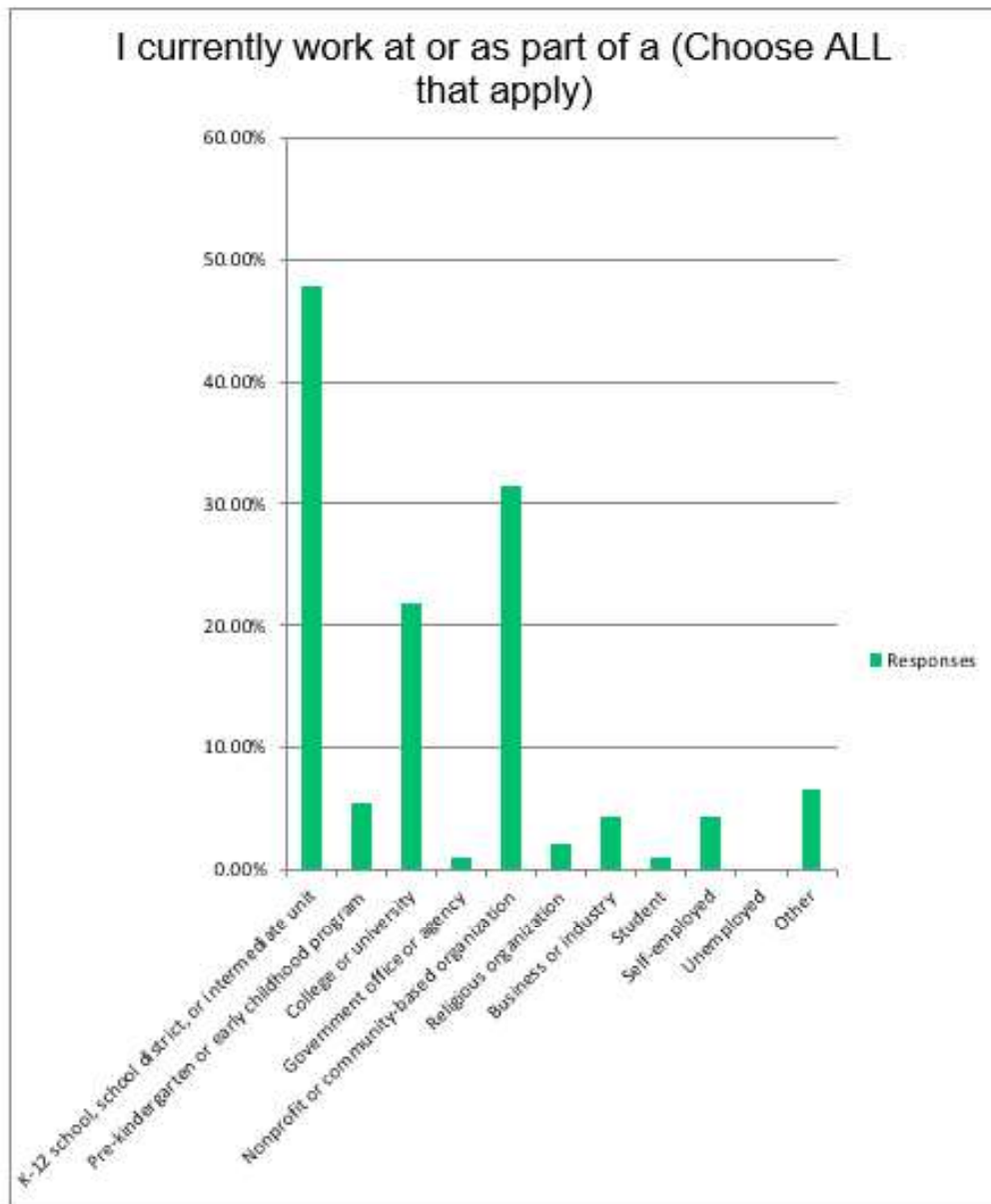
This was followed by those who work in a nonprofit or community-based organization (31.5 %), and those who work in a college or university (21.7 %). Most of the respondents spend the majority of their workweek on direct service (33.7 %), then mid-level administration (25 %), and then capacity-building (21.7 %) **(Figure 2).**

Figure 2 – Job Responsibilities
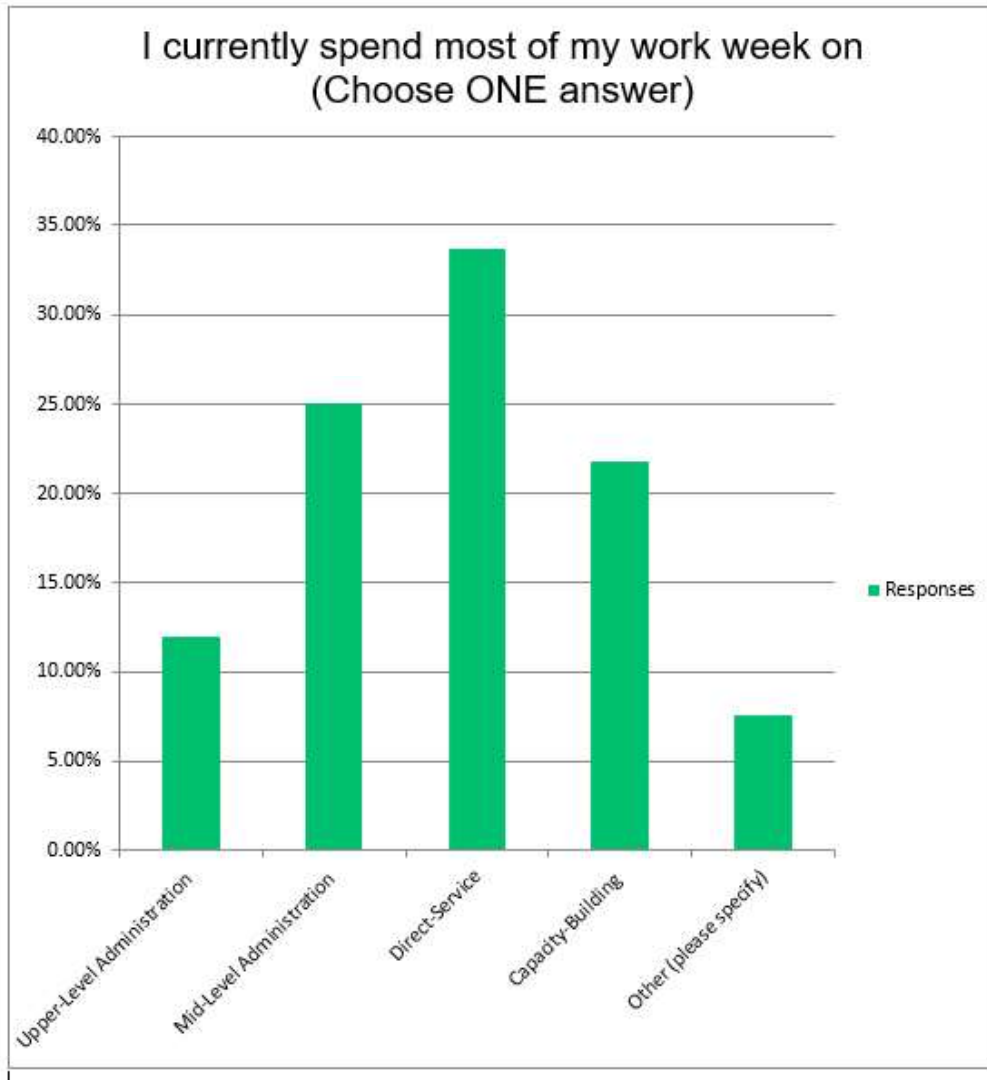
Respondents were fairly evenly distributed in terms of their years of experience in the education field **(Figure 3).**

Figure 3 – Years in Education
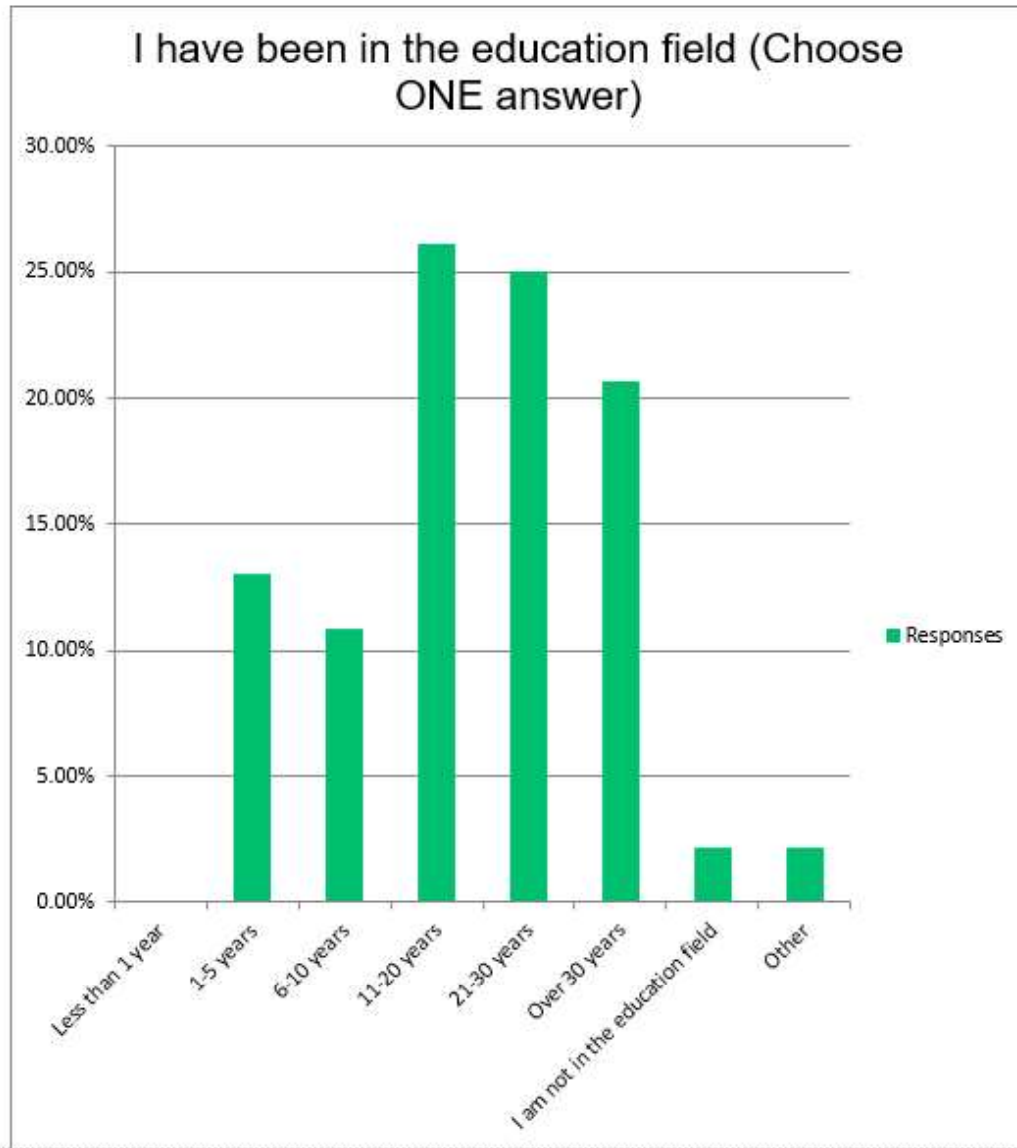
Most have worked in this sector for 11-20 years (26.1 %), 21-30 years (25 %), and over 30 years (20.7 %). The majority of the respondents have a Master's Degree, (57.6 %), followed by those with a Doctoral Degree (21.7 %) and then those with a Bachelor's Degree (15.2 %) **(Figure 4).**

Figure 4 – Highest Degree

My highest academic degree is (Choose ONE Answer)
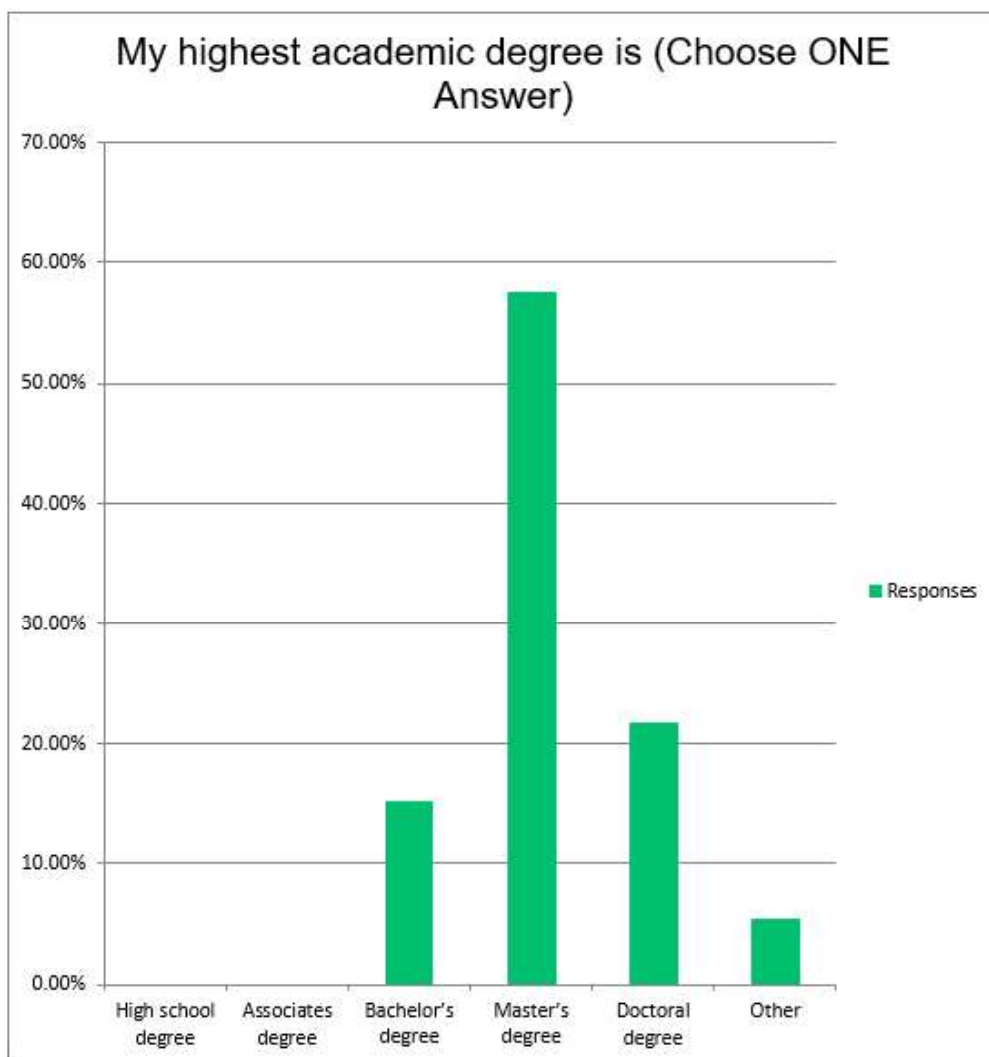
Skill Set Proficiency

The second section of the survey listed a total of thirty professional skill sets and asked respondents to rate their respective proficiency as *Extremely Proficient, Very Proficient, Proficient, Not Very Proficient, Not At All Proficient,* or *Not Applicable*. The results are the weighted average answers to each question, with 1 being *Not At All Proficient* and 5 being *Extremely Proficient*. A total of 77 people responded to this question, and 15 participants skipped this section.

In skill sets related to the *Management and Administration* **(Figure 5)**, respondents rated their skills in facilitating in-person or virtual meetings as the most proficient (3.96%); followed by supervising or coaching staff and/or volunteers (3.78%); then working with computers, software, and technology (3.77%); and finally managing grants, programs, or projects (3.22%).
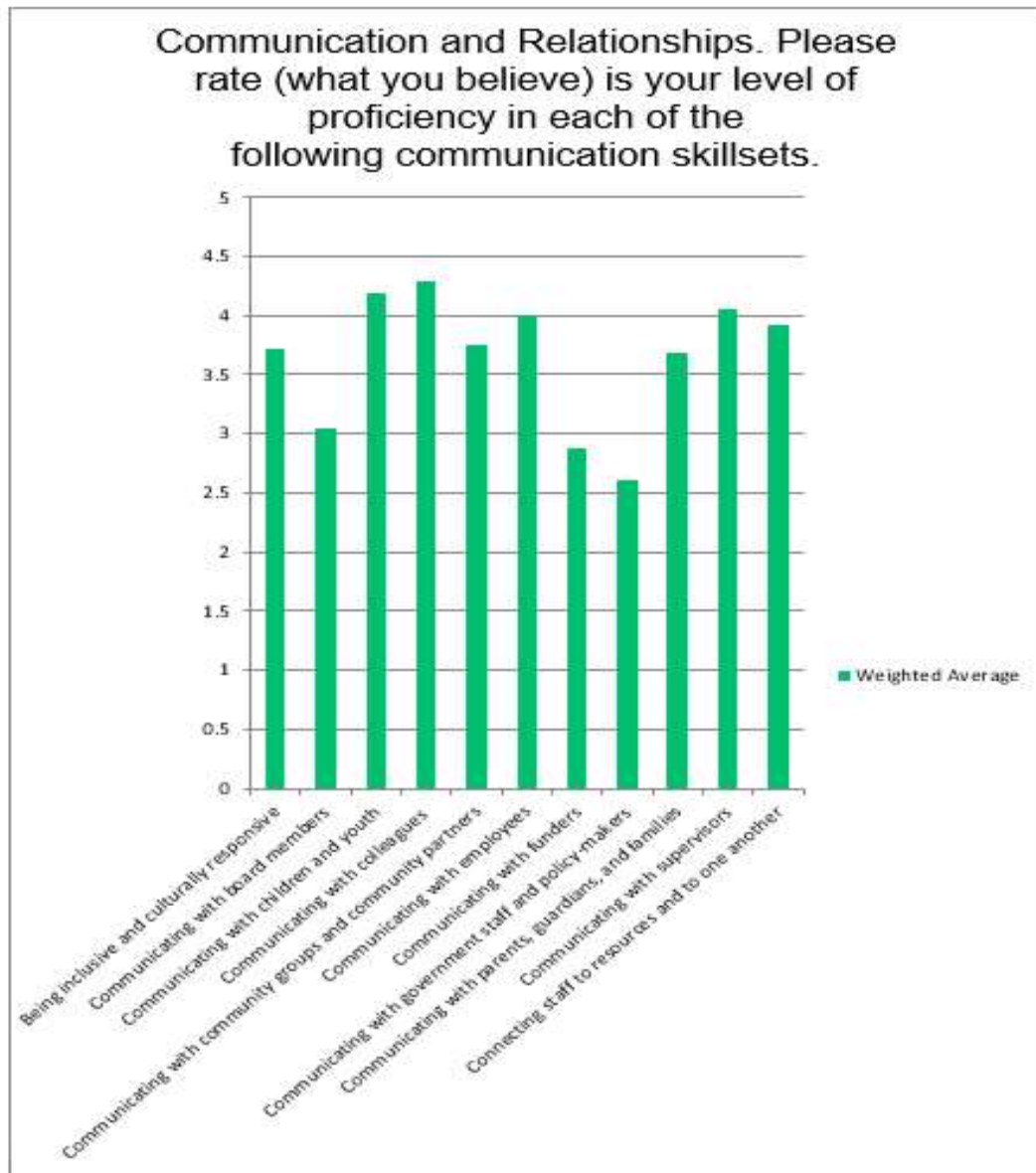
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Their least proficient *Management and Administration* skills were writing (2.96%%), raising or managing money (2.53%), and providing graphic or website design (2.22%).

Figure 5 – Management and Administration
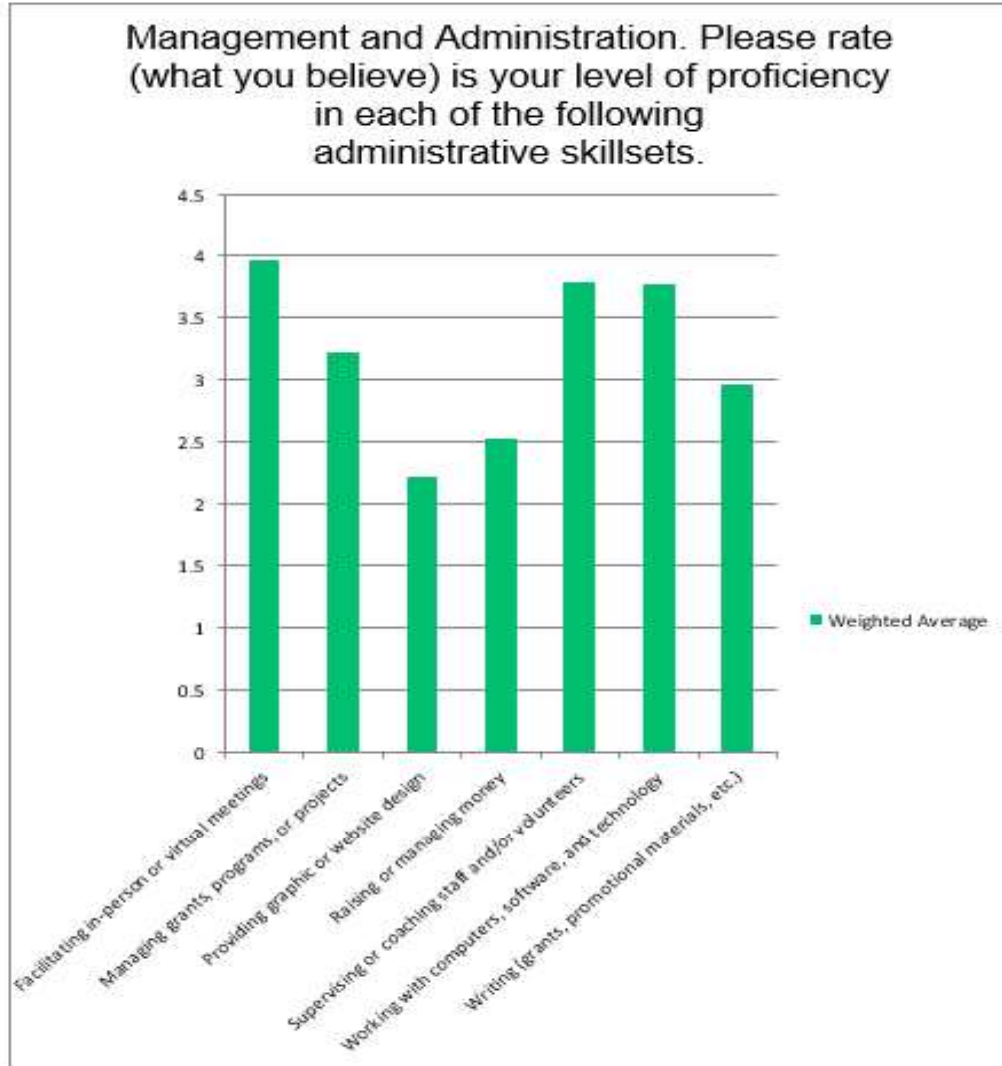
Respondents were then asked to rate their proficiency within the *Communication and Relationships* skill sets **(Figure 6).** Their highest-rated proficiency was communicating with colleagues (4.29%); followed by communicating with children and youth (4.19V); then communicating with supervisors (4.06%); then communicating with employees (4.01); then connecting to staff to resources and one another (3.92%); then communicating with community groups and community partners (3.75%); then being inclusive and culturally responsive (3.71%); then communicating with parents, guardians, and families (3.69%); then communicating with board members (3.05%) then communicating with funders (2.88%); and finally communicating with government staff and policymakers (2.61%).

Figure 6 – Communication and Relationships

Communication and Relationships. Please rate (what you believe) is your level of proficiency in each of the following communication skillsets.

Within the *Education, Teaching, and Pedagogy* skill sets **(Figure 7),** respondents felt that they are very proficient in managing groups of learners of any age (4.05%). They also believed that they are proficient in blending teaching activities and topics (3.92%); developing curriculum and lesson plans (3.82%); teaching adults (3.77%); understanding and addressing learning styles and differences (3.75%); teaching school-age children (3.55%); and teaching college students and young adults (3.32%). Participants felt that they were the least proficient in teaching preschool (2.16%).

Figure 7 – Education, Teaching, and Pedagogy

Education, Teaching and Pedagogy. Please rate (what you believe) is your level of proficiency in each of the following education skillsets.
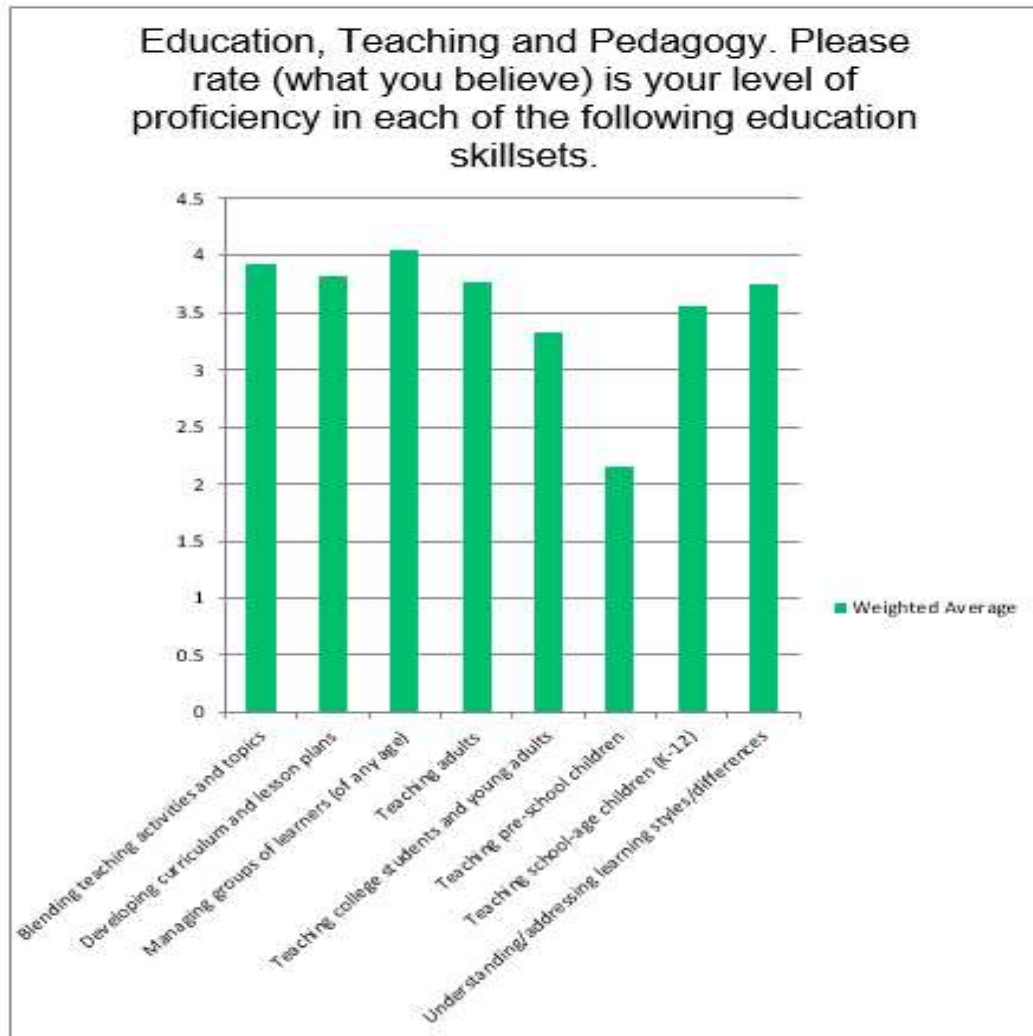
The last question asked respondents to rate their proficiency within the *Research and Evaluation* skill sets **(Figure 8).** The majority of respondents feel that they are the most proficient in analyzing and responding to program or student data (3.70%). Collecting program or student data (3.60%), implementing others' program or student evaluation tools (3.58%), and creating program or student evaluation tools (3.43%) were also self-reported as proficient skills. Respondents are least proficient in conducting empirical research (3.08%) and literature reviews (2.82%).

Figure 8 – Research and Evaluation
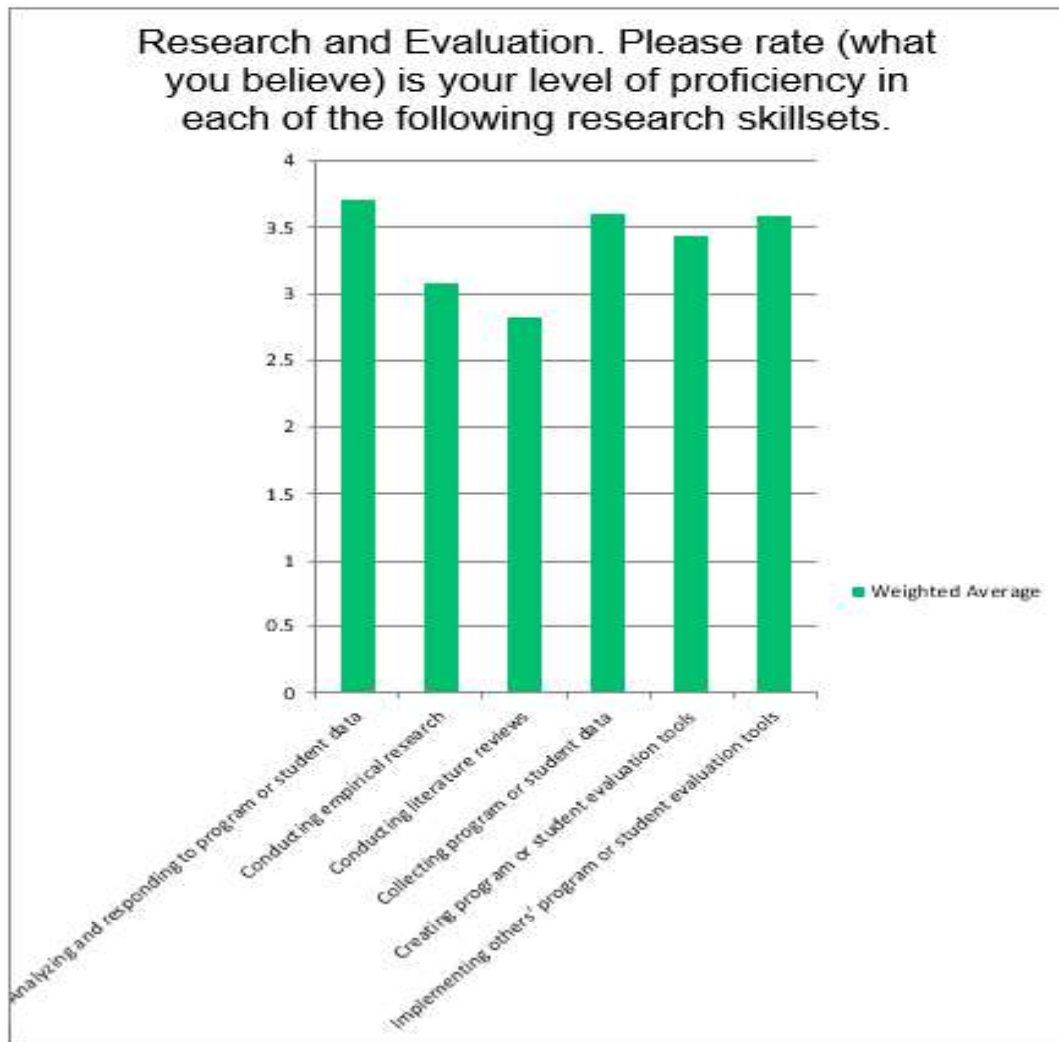
Professional Development Experiences

This section asked participants to connect their previously-identified skills to the professional development experience they believe most influenced or cultivated those skill sets. The 16 PD choices included: *articles and reports, being mentored by a colleague, books and audible books, certifications or credentialing programs, coursework (college level or otherwise), handbooks and toolkits, personal experience/trial and error, personal upbringing and parents' or guardians' guidance, professional conferences, personal learning communities, and peer networking, stand-alone workshops, supervision or being mentored by a supervisor, webinars and online learning, websites, workshop series (2 or more sessions), YouTube (and other types of) videos,* and *not applicable.*

Respondents were asked to connect each skill from the four skill set groups to the type of professional development they believe most influenced their proficiency in that skill. In this section, 60 respondents answered all the questions and 32 answered some of the questions.

Under the *Management and Administration* skill sets, the majority of respondents' skills were heavily influenced by *personal experience/trial and error* (an average of 35.7 %). *Being mentored by a colleague* was the second most highly-rated PD experience that influenced these skill sets (an average of 11.9 %).

In the *Communication and Relationship* skill sets, respondents also selected *personal experience/trial and error* as the overall primary PD experience that influenced their proficiency (an average of 36.5 %). Notably, most respondents reported that *professional learning communities and peer networking* were the PD experiences that enhanced their ability to be inclusive and culturally responsive (25 %). *Being mentored by a colleague* also had a significant impact on some skills, including communicating with board members (18.3 %) and communicating with supervisors (18.3 %).

Educators had mixed responses to connecting *Education, Teaching, and Pedagogy* skill sets with specific types of professional development, Many noted that coursework (college level or otherwise) most influenced their proficiency in *understanding/addressing learning styles and differences* (36.7 %), *blending teaching activities and topics* (30 %), and *developing curriculum and lesson plans* (30%). The majority of participants added that personal experience and trial and error most contributed to skills in *teaching adults* (53.3 %), *teaching college students and young adults* (40 %), and *managing groups of learners* (36.7 %). Most also said that *teaching preschool children* was not applicable (40 %), although those that found it applicable cited personal experience and trial and error (23.3 %) as the primary contributor.

The last set of skill sets, within *Research and Evaluation*, received consistent responses regarding the impact of PD experiences. Coursework primarily influenced the skills of *analyzing and responding to program or student data* (31.7 %), *conducting empirical research* (51.7 %), and *conducting literature reviews* (48.3 %). Regarding proficiency in *collecting program or student data*, most respondents selected *coursework* (25 %) while others selected *personal experience and trial and error* (20 %) and *professional learning communities and peer mentoring* (18.3 %). For skills related to creating a program or student evaluation tools, respondents selected *coursework* as the main PD that influenced their proficiency (21.7 %), as well as *personal experience and trial and error* (18.3 %) and *professional learning communities and peer mentoring* (15 %). Respondents had similar responses to the skills of implementing others' programs and student evaluation tools, in that *personal experience and trial and error* (21.7 %) and *coursework* (20 %) were selected as the PD experiences with the most impact in these areas.

The final survey question asked, 'Please share any additional information about how professional development experiences have contributed to your professional.' Twenty-six individuals responded to this question, with excerpts below:

- 'Personally, I feel that I gained a lot of my skills through training in related fields. A lot of my teaching skills come from my training in the Boy Scouts National Camping School. My interpersonal skills got much better after working in retail.'

- 'Much of what I have learned, I have learned through doing. I watch how my supervisor does it, mimic what I like, and try to improve what I don't like. I ask colleagues for help, or occasionally try to find online resources to supplement what I have learned. I would prefer some more formal learning opportunities, but I can't afford most workshops and courses, and my time is limited. It's hard to figure out which programs and seminars will be worthwhile.'

- 'I seek out PD for areas that will help me in the classroom. I am a STEAM teacher so the majority of my PD, that I LOVE to attend is on my own time, free and STEAM related.'

- 'I find learning communities on social media to be very helpful.'

- 'The gathering of like-minded thinkers, educators in this sense, helps propel the intended mission/objective.'

- 'I rely heavily on learning from colleagues and supervisors and their willingness to share their experience/expertise.'

- 'The act of actually organizing and leading teacher PD.'

- 'Working as a Founder and President of an Nonprofit and teaching in my community afford me my skills to help as a ABA Therapist.'

Materials and Methods - Focus Groups

Focus Group Design and Implementation

The online survey concluded by asking respondents if they were interested in participating in a Focus Group, to further discuss the connection between professional development and workplace skill sets. Of the 92 survey responses, 41 agreed to participate in a focus group. We contacted these individuals a total of three times - to confirm their interest and schedule the focus groups. The sessions were finally scheduled for three separate dates in June 2021. Because the focus group participants were recruited from across the state and country, the three 1-hour sessions were held via Zoom.

The primary goals of the focus groups were to explore the survey questions in greater detail, generate new answers, and encourage educators to build off of one another's ideas. The participants reflected a variety of years in the education field; different job titles and responsibilities; and diverse educational backgrounds, genders, ages, and geographic locations. We framed each focus group by presenting its definition of professional development, and then asking educators to reflect on one PD experience they did and one that they did not enjoy or find

useful. While the latter question was not part of the research study, it helped participants to reflect on the variety, quality, and impact of their respective PD experiences. We then asked the individuals to identify their (one) strongest area of professional expertise and speculate on what professional development experience most contributed to that skill. Although we asked these specific questions during every focus group, we sometimes asked additional questions depending on the flow of the conversation.

Focus Group Questions

We asked the following set of questions during each of the four focus groups.

1. *'Using our definition of professional development and the list of PD formats, think about your professional development experiences. Identify one that you found exceptionally enjoyable and/or useful. What was it, and why was it effective?'* Eight people participated in this discussion. They referenced workshops and training programs most frequently (4 responses) and noted that the relevant content associated with formal programs was helpful. One attendee added that in-person conferences with hands-on opportunities and collaborative activities were memorable and helpful (1 response). Additional respondents identified working with and being mentored by a colleague as helpful (2 responses) and utilizing the skills in person/on the job (1 response).

2. *'Identify one PD experience that you did not enjoy or found helpful.'* All 7 participants who responded to this question addressed issues encountered during a workshop or training. One prevalent issue was that the presenter or facilitator did not know the audience and, therefore, that the content did not apply to the participants (2 responses). Individuals also noted that poor planning and imbalanced/meaningless activities did not contribute to their professional growth (3 responses). Lastly, participants added that mandatory workshops were often irrelevant to areas in which they wished to grow or improve (2 responses).

3. *'Choose what you believe is one of your top professional skill sets. Then think about our list of PD types. In your experience, which type(s) of PD contributed most to these skill sets?'* A total of 22 Focus Group participants responded to this question. The majority of individuals expressed confidence in their *Communication and Relationships Skill Sets* (14 responses). People who chose communication as their most proficient skill said that *working with colleagues and professional mentors* were the PD experiences that most contributed to this skill (5 responses). *Personal experience* (3 responses), *parental guidance* (2 responses), *practice at work* (2 responses), *workshops* (2 responses), and *college coursework* (1 response) also contributed to *Communication and Relationship*

4. *Skill Sets.* Four individuals chose *Management and Administration Skill Sets* as their highest degree of professional proficiency, influenced primarily by *Personal Experience* (2 responses) and *Workshop Series* (2 responses). One participant noted that his ability to engage audiences on different levels came from parental upbringing and influence. He explained that while accompanying his father on sales calls throughout his childhood, he

observed how his father would change his presentation and language when talking to different people.

The remainder of the participants choose *Education, Teaching, and Pedagogy* as their most proficient set of professional skill sets (3 responses). They attributed this proficiency to *coursework* (2 responses) and *personal experience* (1 response). One participant explained that, while completing his undergraduate degree, he experienced studying difficulties first-hand. He said this helped him teach, work with, and support students who had problems studying - by building cohorts and peer relationships.

One participant noted that her top skill sets were in the area of <u>Research and Evaluation</u>, and that she learned these skills through <u>mentoring</u>.

5. *'Do you feel that your academic degree played an important role in developing your professional skill sets? Why or why not?'* We added this question toward the end of each Focus Group session, since time permitted. The three individuals who responded to this question said that the process of pursuing their academic degree (rather than the content) most enhanced their professional skill sets, For example, one respondent earned his Ph.D. in cancer biology, and noted that the experience taught him problem-solving – a skill that was important in his subsequent career. Another participant added that, through navigating his own education career, he learned how to communicate with different audiences and pay attention to the content most relevant to them.

6. *'What types of professional development might contribute to your continued professional growth?'* Our focus group participants had mixed responses to this question. Most were eager to suggest how PD opportunities might be more useful - such as being relevant and timely, providing straightforward goals and content, and building upon participants' current knowledge. One participant noted that professional development should adapt as education needs evolve; for example, providing more workshops on technology and virtual education to meet the demand for distance learning. Participants also mentioned that for PD to be relevant, PD administrators and designers should solicit input from the participants, regarding what will be most helpful to them. Lastly, one participant suggested that school districts should offer optional PD over the summer, which could replace mandatory training during the often overscheduled school year.

Research Limitations

This research study encountered four distinct limitations. The first is that survey respondents may be overconfident in their aptitude – in this case, in their professional skill set proficiency. However, self-reported data can remain valid if there are no incentives to lie - and may even reveal more behaviors through the participant's self-view.

A second concern was that the survey may have contained an overwhelming number of PD experiences and skill sets which respondents were asked to review and then align. We speculated that individuals skipped some of the most important questions or skimmed through the sections and answered half-heartedly. For example, the third part of the survey asked

respondents to match their professional skill sets to influential PD experience. Thirty individuals (out of 92 respondents) skipped the entire section. This could lead to results that are much less reflective and compelling.

A third potential limitation was that, during the focus group discussions, participants may have been reminded of a significant PD experience when listening to other participants - and then determined that it influenced them as well. For example, this might be the reason that during these sessions, *Communication Skill Sets* were mentioned as the top professional skill sets by a majority of participants – even though this was inconsistent with the online survey findings. However, one purpose of the Focus Group was to facilitate and inspire ideas through dialogue. Thus, the research team believed that the benefit of peer-to-peer conversation outweighed the potential biases.

Lastly, the survey was distributed and completed through online tools such as emails, Constant Contact, and SurveyMonkey; and the virtual focus groups were conducted through Zoom. Therefore, only those with internet access were able to participate. Moreover, since the focus groups were facilitated through Zoom (and only a few months into the COVID-19 Pandemic), those who were not familiar with virtual meeting technology may have felt less inclined to participate. Due to this unintentional digital divide, our project may have inadvertently engaged a cross-section of participants with greater access to and familiarity with technology.

Results

The literature review, online survey, and focus groups generated the following findings and analysis:

Essential Terminology

As referenced previously, educators often assume that the term 'professional development' pertains exclusively to workshops, trainings, and conferences. However, when given a wider array of PD examples to choose from, our participants were able to broaden their definition of PD and, in the context of this research, unpack what types that contributed to their workplace skill sets, This was an essential first step in understanding the connection between specific PD experiences and professional attributes.

Impactful Professional Development

Management and Administration. In our survey and focus groups, respondents indicated that *personal experience/trial and error* primarily impacted/fostered their skill sets within *Management and Administration*. We speculate that, because these skills require interactions with other people, having hands-on experience contributes significantly to these skill sets. This study also suggests that *being mentored by a colleague* can help cultivate *Management and Administration* skills.

Communication and Relationships. Our research indicates that proficiency within *Communication and Relationships* is also heavily influenced by *personal experience.* As with

skill sets within _Management and Administration,_ we believe that first-hand practice might be essential for cultivating these attributes. In addition, our focus group conversation indicated that _personal upbringing and parents' or guardians' guidance_ may also contribute to skill sets within _Communication and Relationships_.

Education, Teaching, and Pedagogy Our research suggests that _coursework (college level or otherwise) and personal experience/trial and error_ have a significant impact on proficiency within _Education, Teaching, and Pedagogy_. Because _coursework_ generally introduces educators to new content and teaching strategies, we were not surprised that participants felt these PD experiences influenced this set of skill sets. However, we were surprised that few participants believed that _stand-alone workshops_ contributed to the skill sets within this category (although some participants mentioned that attending workshops and interacting with like-minded professionals did contribute to these skill sets). The focus group dialogue regarding 'best and worst PD' suggests that improving workshop quality might increase their impact.

Research and Evaluation. Our participants unilaterally indicated that _coursework (college level or higher)_ primarily impacted their skill sets within this category. Since proficiency in _Research and Evaluation_ can require more advanced and technical stills, it is logical that educators would identify coursework was an essential ingredient.

Incidental Findings

The purpose of our research was not to explore the degree or distribution of skill set proficiency among education professionals. However, we were surprised that most participants noted that their greatest strengths were within _Communication and Relationships_. This was true of the direct service as well as administrative respondents, who we assumed would say that their strongest skill sets were in _Teaching, Education, and Pedagogy_. We understand that referencing a _strong_ skill set is not the same as identifying an _essential_ skill set. Regardless, we speculate that communication and relationship-building may be more important (to many types of educators) than is currently recognized or appreciated.

Our second incidental finding was that focus group participants were keenly interested in research pertaining to creating and implementing professional development. Again, we were surprised that direct-service staff expressed the same level of interest as the administrative staff (those who might design and deliver PD). We were pleased that both groups of educators were excited by this body of work.

Discussion

Based on our research study, we offer the following two sets of stakeholder recommendations: one for PD participants, supervisors, PD designers and PD facilitators; and the other for PD researchers.

Recommendations for Professional Development Participants, Supervisors, Designers, and Facilitators

1. Broaden one's definition of PD and seek enriching experiences beyond workshops and conferences. This study reinforced that impactful PD opportunities are not limited to formal workshops and conferences. Many participants shared that they learned important professional skills through different modes of PD such as trial and error, being mentored by colleagues, and observing and modeling others. We suggest that PD participants, supervisors, PD designers, and PD facilitators actively seek and integrate diverse PD opportunities that augment workshops and conferences - so that multiple skill sets are cultivated.

2. Employ self and external assessments, to determine which staff skill sets need further development. There are many research-based rubrics and instruments that can help staff, supervisors, and third-party evaluators determine which skills an educator may need when beginning a new job, when they need to perform their current responsibilities more effectively, and/or when seasoned staff might need 'fine tuning.' Rather than going straight to a workshop, webinar, or conference, we encourage all stakeholders to consider the diverse array of available PD opportunities (item #1 above) and match staff needs and relevant interventions accordingly (item #3 below).

3. Recognize that different PD experiences cultivate different skill sets. Our study illustrated that different types of professional development do, in fact, foster different types of skill sets. This is a critical finding and should inspire educators, those that supervise educators, and PD designers to reference this information when matching participants to PD opportunities. Our data provides the details regarding which types of PD might successfully cultivate which skill sets.

4. Enhance staff communication and relationship-building skills through multiple PD opportunities. Building upon our first incidental finding, we suggest that all PD stakeholders pay greater attention to opportunities that cultivate communication and relationship-building – since participants identify these as their most significant professional skill sets. Relevant and effective PD options might include workshop activities that promote communication among attendees, role-plays in which educators must interface with diverse audiences, memberships in virtual and in-person peer learning communities and coaching from a proficient colleague or mentor.

5. Seek continual input and feedback from staff, and plan and modify accordingly. To ensure advancement within any of the recommendations listed above, educators must have regular opportunities through which to influence their PD experiences – before these activities commence, during a workshop or workshop series, and retroactively/after an intervention has ended. Participants will likely have the best sense of what skills they need to develop, what may help them advance, and what is or is not helping them achieve their goals.

Recommendations for Professional Development Researchers

1. <u>Expand the breadth of the study</u>. We believe that our survey questions and focus group protocols were designed thoughtfully, engaged, and integrated valuable professional input, and generated the data we hoped to collect. We encourage others to use our instruments to gather information from additional populations and, thus, continue to contribute to our research base,

2. <u>Expand the geographic reach of the study</u>. Although this was not designed as a region-specific study, our survey and focus groups participants were largely from the Philadelphia area. We encourage our national colleagues to gather data from their own regions and, similar to item #1, contribute further to our collective findings. <u>Dig deeper</u>. Our study generated as many questions as it did answers. For example:

   a. How can our broader definition of PD be shared and embraced by a wider number of education stakeholders?
   b. In what ways can the links between specific PD experiences and workplace skillets be further unpacked, explored, and strengthened?
   c. How can workshops and conferences be improved so that they contribute more significantly to workplace skill sets?
   d. Why are communication and relationship-building skills so important to a wide range of educators, and how can we design PD interventions that purposefully foster these?
   e. How can our data be used to craft comprehensive PD plans for both individuals and groups of educators?

Conclusion

Our research began with a simple question: *What types of professional development contribute to the critical* skill sets *of education professionals?* By embarking on this study, we unpacked and expanded upon a traditional definition of professional development; created and implemented quantitative and qualitative instruments; produced data that addressed and went beyond our initial question; and generated a series of recommendations for participants, supervisors, PD designers, and researchers. We sincerely hope that our study will prove useful and inspirational to all four of these education stakeholders.

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