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What Should be in an Assessment Professional's Toolkit? Perceptions of Need from the Field

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Abstract: What professional development do assessment professionals need to succeed in higher education? To meet the rising demands in the field, assessment professionals seek ways to improve their skill sets. The current study utilized survey responses from over 200 higher education assessment professionals across the United States to assess the amount of training assessment professionals had when starting their position, the professional development they have sought since being in the position, and what training is still needed in the field. A thematic analysis of three open-ended survey questions revealed the eclectic backgrounds of assessment professionals, their preferred trainings while in the role, and the content and modalities requested for future professional development.

Keywords: *assessment professionals, professional development, higher education, skills, training modalities*

Introduction

Higher education assessment professionals (APs) derive from eclectic academic backgrounds, many with no prior experience in assessment (Ariovich et al., 2019). With the rising demands on assessment in higher education, APs are also tasked with managing multiple roles and mounting responsibilities at institutions (Ariovich et al., 2019; Jankowski & Slotnick 2015; Morrow et al., 2022). Training and professional development to help APs overcome missing or undeveloped skills have been inconsistent, inaccessible, or nonexistent entirely (Ariovich et al., 2019). The current study aimed to start the process of determining the professional development needs of APs and how to engage the profession in its completion

Due to the lack of previous research, recent literature has predominately focused on determining the actual role for an AP in higher education. Jankowski and Slotnick (2015) notably started the conversation with their examination of assessment job postings and

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interviews with specialists in the field. The authors created an initial framework of five key roles for APs: Visionary/Believer, Narrator/Translator, Political Navigator, Facilitator/Guide, and Assessment/Method Expert. Despite their definition of an assessment practitioner as one that is responsible for assessment and reporting in multiple institutional facets and these framework roles, researchers continue to investigate what a typical professional AP is and redefine its attributes. Continuing this research, Nicholas and Slotnick (2018) highlighted the diverse academic backgrounds of APs and noted the difficulty in determining their job titles and status, roles, etc. within institutions. Higher education assessment scholars continually investigate our profession's roles and note some common skillsets, but they do not consider the professional development needs that should be addressed as the role of an AP is illustrated for the field.

From another angle, Ariovich et al. (2018) investigated the perception of assessment professionals' work at institutions. Through the results of these Watermark and University of Kentucky surveys, the authors noted themes of improvement, accountability, and implementation concerns. Additionally, notations about the respondents enjoying the methodological, collaborative, and utilization of assessment were seen, while also illustrating their dislikes of potential issues with methodology, persuading others in academia to use it, and the value of assessment itself. Ariovich et al. (2018) also demonstrated the alignment between their research's findings on an AP's roles to those on Jankowski and Slotnick's (2015) list and adding a role of project manager. The findings displayed the professional development needs from the surveys' respondents as well. Seventy-eight percent of respondents had obtained professional development through conferences, webinars, and journals. In addition to items such as assessment structure and resources at other institutions, six topics were predominant in the professional development content respondents requested: staffing and resources, best practices in assessment, learning outcomes and co-curricular assessment, assessment tools, collaboration, and using data for change and strategic planning. The results indicate APs have an interest in a broad array of topics in a holistic approach versus those specific to a content area (Ariovich et al. 2019). While the research provides the initial look into APs professional development, it does not delve into the concept or its content topics in-depth for curriculum or training creation purposes.

Horst and Prendergast (2020) provide an academic affairs perspective on the assessment skills training for faculty in student learning outcomes assessment. The authors worked to establish the needed set of assessment learning outcomes for faculty that could be transitioned into professional development opportunities. Some examples include: distinguishing between various levels of assessment, developing student learning outcomes, developing theory-based programs, and designing performance assessment measures. The Assessment Skills Framework was developed in conjunction with the authors' institutional assessment office and contains knowledge, skills, and attitudes toward assessment at three achievement levels: novice, intermediate, and advanced (Horst & Prendergast, 2020). However, these were geared primarily towards faculty and potentially miss essential items needed for the broader assessment professional role (Horst & Prendergast, 2020; Morrow et al., 2022). Horst and Prendergast (2020) also note academia's backward, reactive design to training new APs due to their diverse academic backgrounds. Unfortunately, the article does not investigate the preparedness of APs or the professional development needs and the modalities needed to deliver it.

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Purpose

The purpose of the current study was to ascertain assessment professionals' (APs) engagement in professional development and training in the field. Specifically, it explores what credentials and training APs have completed since starting their most recent position. To build off their prior experience and training, participants were asked what type of training they need and a recommended delivery modality for it. The results will inform curriculum and training design in future professional development options nationwide.

Reflexivity

The first researcher identifies as a white, non-hispanic/latino female and is a doctoral student in Evaluation, Statistics, and Methodology. She has worked as an assessment and evaluation professional involving academic program, college, and university-wide practices in higher education for over nine years at public 4-year institutions. The second researcher identifies as a heterosexual, white woman and is an associate professor in Evaluation, Statistics, and Methodology at a 4-year public institution. She has a Ph.D. in Experiential Psychology and has over 20 years of experience conducting evaluation and assessment projects in higher education and training novice researchers in methodology. The third researcher identifies as a woman of Mediterranean descent and is a higher education assessment professional at a 4-year public institution. She has a Ph.D. in Counselor Education and Supervision, conducted research about the professional identity of assessment professionals, and has professional experience in program evaluation, clinical research, mental health counseling, and teaching in higher education. The fourth researcher identifies as a white woman, has an Ed.D. in Educational Leadership in Higher Education, and works as an Assistant Dean at a 2-year public and minority-serving institution. She has backgrounds in teaching, assessment, student affairs, and mental health counseling and is active in researching and publishing in the higher education assessment and adult learning fields.

Method

Survey Development and Description

The survey was created by Morrow et al. (2022), utilizing recent literature (Ariovich et al., 2019; ACPA/NASPA, 2015; ALA, 2017; Gregory & Eckert, 2014; Herdlein et al., 2013; Hoffman, 2015; Hoffman & Bresciani, 2012; Holzweiss et al., 2018; Horst & Prendergast, 2020; Janke et al., 2017; Jankowski & Slotnick, 2015; Lindsay, 2014; Shipman et al., 2003; Simcox & Donat, 2018; Sriram, 2014) to create a comprehensive list of skills and dispositions potentially needed by APs to be effective in the field. This literature cut across fields such as assessment, administrative leadership, and student affairs. Once the authors summarized this literature to create a draft of skills and dispositions, the list was shared with five external assessment professional experts to review the tool and utilized their feedback in the tool revision process (Morrow et al. 2022).

In the final instrument, participants were asked to rate the level of importance of the concepts for their position on a 5-point Likert scale, complete four open-ended questions regarding missing

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criteria on the tool, and demographic/background questions (Morrow et al., 2022). The current study focuses on summarizing the data from three of the open-ended questions¹:

1. What other credentialing have you completed in the field of assessment?
2. What types of training (i.e., non-degree, non-certificate) have you engaged in since becoming an assessment professional?
3. What types of professional development/training do you believe would help you be a more effective assessment practitioner?

Participants and Recruitment

After Institutional Review Board approval was obtained, purposive and snowball sampling was conducted by emailing a link to the Qualtrics survey to assessment-related listservs and social media platforms to recruit participants from across the United States (Morrow et al, 2022). In addition, the authors contacted assessment professional colleagues to request assistance in sharing the survey link during the approximately six-week data collection process in the summer of 2021 (Morrow et al, 2022). A total of 285 responses were received from participants and 213 APs remained after data cleaning. The participants reported they were predominately in AP director positions (72%), with an average of 69% of their work as assessment and 10 years in the position, and work in 4-year (84%) and public (70%) institutions. Of these responses, open-ended question 1 received 74 answers with 30 None/NA entries, open-ended question 2 received 111 responses with 2 None/NA entries, and open-ended question 3 received 83 recommendations with 5 as None/NA. The data from these three open-ended questions is summarized below.

Qualitative Analysis and Trustworthiness

Braun and Clark's (2006) six-step thematic analysis process was conducted on the three open-ended questions. Aligning with the initial investigative nature of the study, a theoretical approach and semantic level of thematic analysis were conducted to retrieve repeated patterns in the participants statements (Braun & Clark, 2006). The responses were reviewed utilizing Excel spreadsheets. Each question was assigned a tab, only its responses were entered into the tab, and pivot tables were created to aid in data visualizations. After reading through the responses multiple times (Step 1), in vivo coding was used to create the first round of coding (Step 2) to prioritize the participants' voices (Braun & Clark, 2006; Saldana, 2016). As a solo coder and in preparation for determining themes in the third step of the process, the lead author consulted colleagues about their experiences with this type of coding and data to determine if other aspects should be considered and maintained reflections of these conversations and coding during the process (Braun & Clark, 2006; Saldana, 2016). Pattern coding was conducted to refine the codes to recognize the themes more easily within the data (Step 3) (Braun & Clark, 2006; Saldana, 2016). Both sets of codes were listed in tables during the individual steps. Themes were determined after reviewing the tables (Step 4) and refined

¹ The summary of the closed-ended questions and other open-ended questions from this data collection can be found in Morrow et al. (2022).

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under further examination to provide a better picture of the themes and concepts the data illustrated (Step 5) (Braun & Clark, 2006). The final step is demonstrated in the Findings section with samples of the participants' statements and extracted themes (Braun & Clark, 2006).

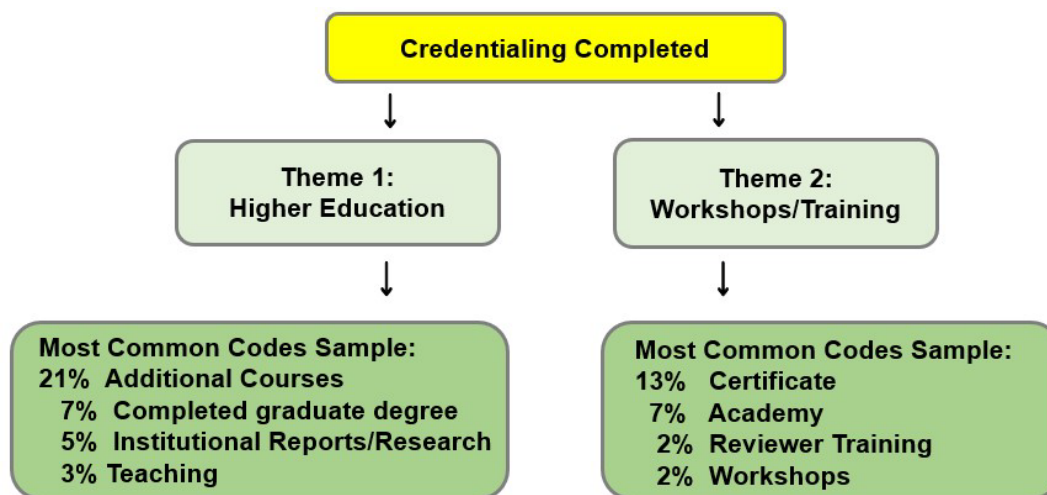
Findings

Research Question 1: Credentials Completed

Thematic analysis of the first research question's responses illustrated themes in the credentials respondents had completed in the field of assessment. The major themes for credentials and training were higher education and workshop training. The most common responses under the higher education theme were supplemental certificates, graduate degrees, and other additional coursework. Secondly, the participants looked to the assessment industry for additional training. Assessment academies, institutes, and workshops were the other locations most turned to for furthering their skills. Many respondents sought a combination of these credentials, with several stating they had completed a doctorate, attended leadership and assessment academies, and accreditation reviewer training. This was illustrated in the selections made by each role. Specifically, assessment specialists relied heavily on additional coursework and certificates, administrators utilized additional courses, academies, and certificates, and faculty chose additional courses, accreditation reviewer training, and certificates most often. Notably, approximately one third of respondents responded with "None" or "Not Applicable" to question 1, implying they have not received any additional credentials since beginning the role. Review Figures 1 and 2 for an illustration of the analyses results. Figure 1 illustrates a sample of the most common codes and Figure 2 notes the percentage in which each major role included those codes in their responses. Table 1 provides examples of participant responses to these themes.

Figure 1

Credentials Completed Analysis

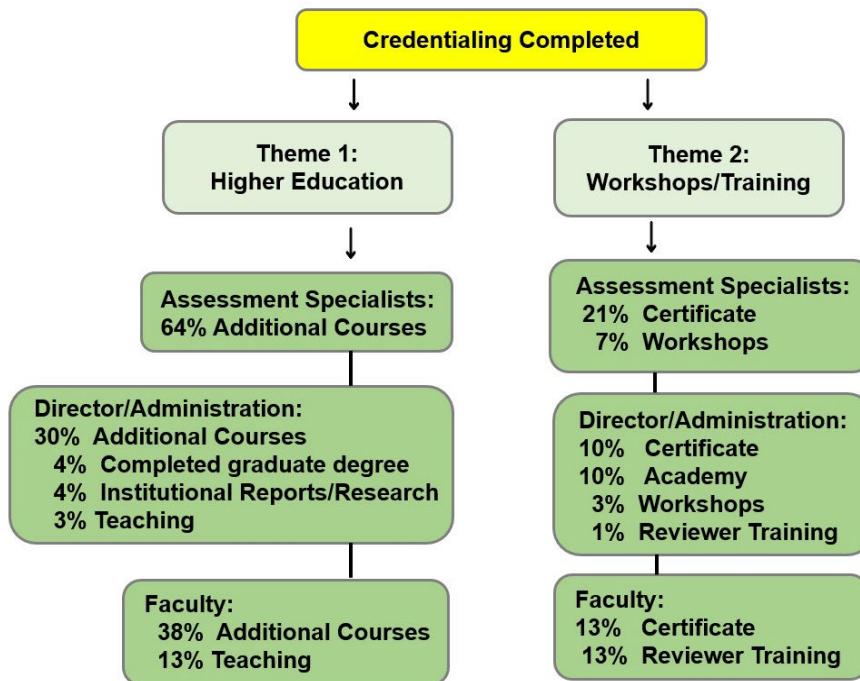


Note: Figure 1 illustrates a sample of the overall most common codes for the themes of Question 1.

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Figure 2

Credentials Completed by Role Analysis



Note. Figure 2 demonstrates a sample of the most common codes by participant role for the themes of Question 1.

Table 1

Other Credentialing Completed in the Field of Assessment Examples

Theme	Response Examples
Higher Education	<p>"ABD in PhD in Educational Leadership"</p> <p>"Certificate in Measurement and Statistics, Certificate in Institutional Research"</p> <p>"Graduate certificate in Evaluation, Statistics, and Measurement"</p> <p>"Graduate certificate in Higher Education Assessment and Leadership"</p> <p>"I had assessment classes in both of my graduate programs. I have also attended the NACADA Summer Assessment Institute."</p>

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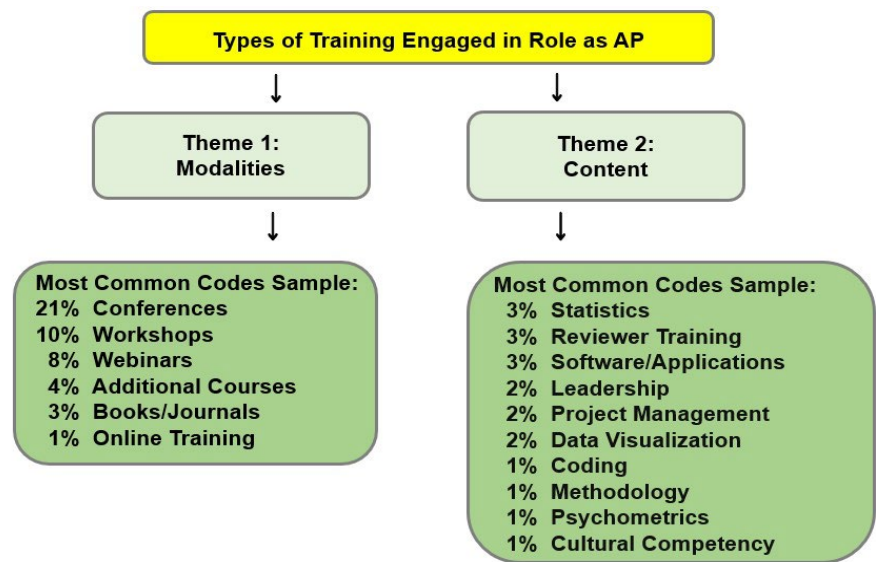
Workshops/Trainings	<p>“Certified secondary mathematics teacher AIR Data Academy participate Cooperative Learning Trainer Multiple Intelligence Trainer SACSCOC IE Evaluator”</p> <p>“Accreditation reviewer - HLC, SACSCOC, WSCUC AAC&U Value Institute reviewer”</p> <p>“WASC Assessment Leadership”</p>
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Note. Table 1 lists examples of participant responses to the themes of Question 1.

Research Question 2: Training as an Assessment Professional

Analysis of the training assessment professionals had obtained since being in the role revealed the themes of their preferred modality of training and subject content areas. Assessment conferences, webinars, and workshops were the predominant modalities assessment professionals utilized to receive training. Surprisingly given the current context of many just recently working and taking classes remotely, there was little demand for webinars and online training. Additionally, several responses indicated the type of additional training they most needed. Training in statistics, data visualization, software and applications, and project management were dominant subthemes in training content, however these were only common among fewer than 5% of the sample. Refer to Figures 3 and 4 for an illustration of the thematic analyses and code distribution by role. Table 2 contains examples of both themes from participant responses.

Figure 3
Types of Training Engaged in Role of Assessment Professional Analysis

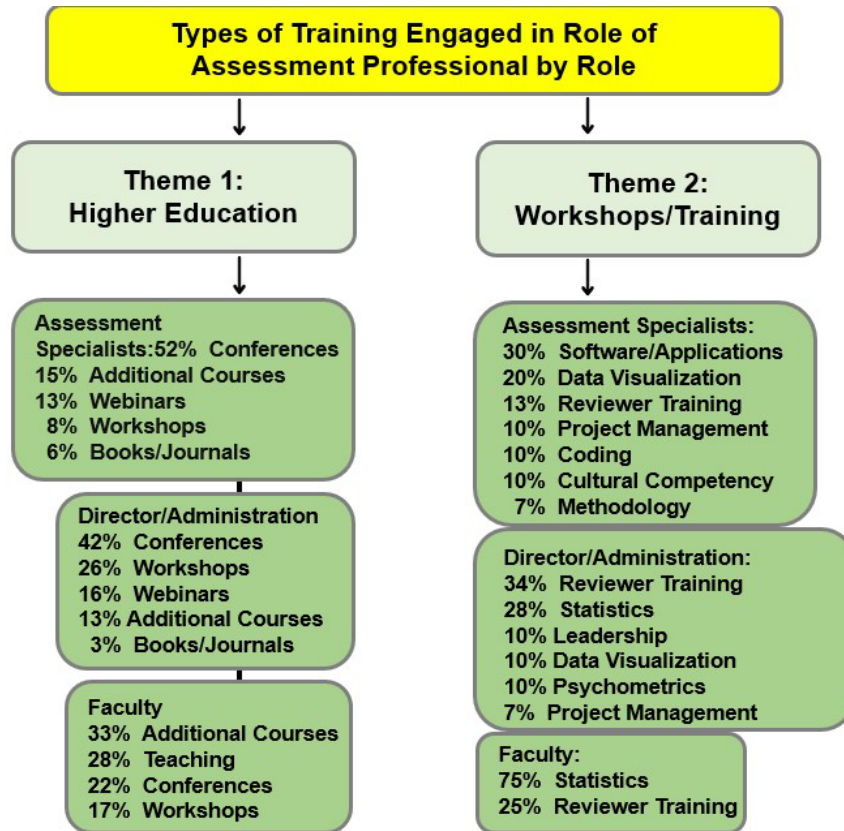


Note. Figure 3 illustrates a sample of the overall most common codes for the themes of Question 2.

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Figure 4

Types of Training Engaged in Role of Assessment Professional by Role Analysis



Note. Figure 4 demonstrates a sample of the most common codes by participant role for the themes of Question 2.

Table 2

Types of Training Engaged in Role of Assessment Professional Examples

Theme	Response Examples
Modalities	<p>“Attend all webinars as needed”</p> <p>“Attended Assessment conferences and webinars”</p> <p>“Conferences have been my main source of training since I began and lots of reading.”</p> <p>“Countless workshops and conferences on assessment and leadership”</p> <p>“Local, state, regional, national meetings and webinars”</p>

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Content	<p>"Lots of Lynda classes, Coursera on python, EdX on R, Power BI training. "</p> <p>"Statistical software, PowerBI, Banner"</p> <p>"Qualtrics certification, Python coding, leadership training"</p> <p>"On-line assessment design</p> <p>California TPA training"</p> <p>"Multiple trainings each year on the following: statistical analyses, psychometrics, equity in assessment, evidence-informed teaching, cognition and instruction"</p> <p>"Info graphics, interactive dashboards, multi-variant assessment, rubric design"</p>
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Note. Table 2 lists examples of participant responses for the themes of Question 2.

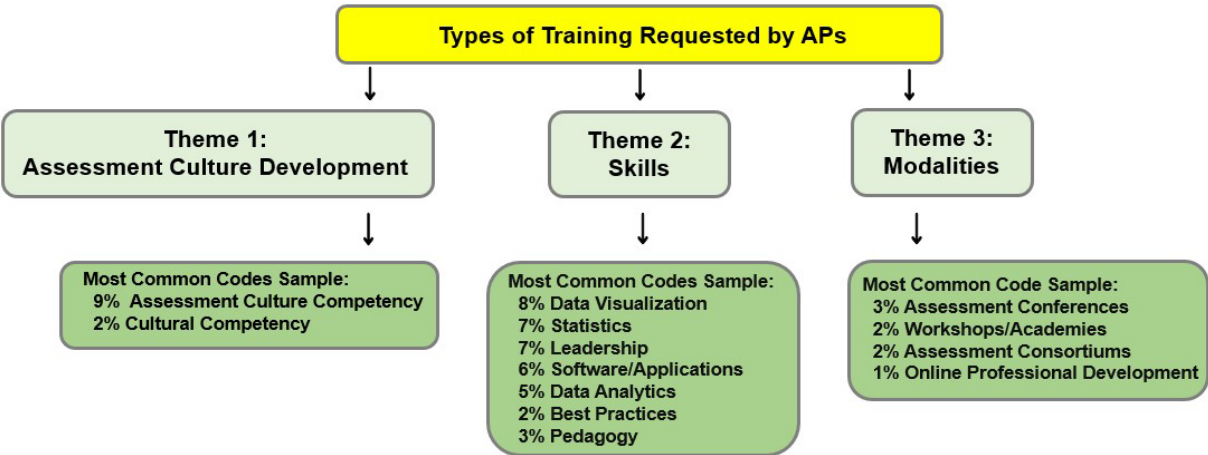
Research Question 3: Trainings and Modalities Needed

Similar skillsets were seen in the participants statements regarding needed professional development and training. Overwhelmingly, assessment professionals' and administration's responses indicated a desire to see assessment culture development training for APs. Statements included "facilitation and rapport building with an assessment department of 1" and "best practices for cultural change at the program level, not only the college or institutional level" as illustrations of this high demand need. Following this item, specific applied skills were the other dominant theme in needed professional development. Data visualization, statistics and data analytics, leadership, and software and applications were most often stated as the primary areas assessment professionals are looking for additional training. Similar to previous questions' responses, APs stated conferences, workshops, and webinars were the primary methods in which they sought additional training in these areas. Directors and administration prioritized workshops and assessment professional consortiums. Interestingly, faculty did not provide many responses to this question. Their responses primarily contained requests for additional instruction for pedagogy and software/applications training. Figure 5 demonstrates the analysis for the types of training requested and Figure 6 ranks the most common occurrences by role. Table 3 lists specific responses for these themes.

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Figure 5

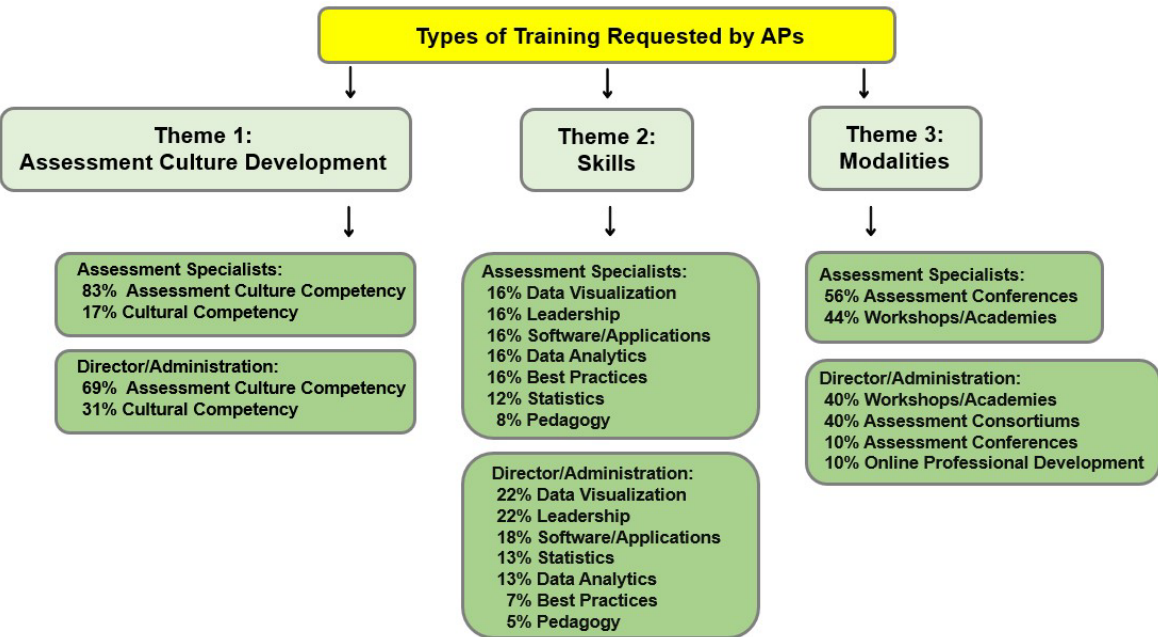
Types of Training Requested by Assessment Professionals Analysis



Note. Figure 5 illustrates a sample of the overall most common codes for the themes of Question 3.

Figure 6

Types of Training Requested by Assessment Professionals by Role Analysis



Note. Figure 6 demonstrates a sample of the most common codes by participant role for the themes of Question 3.

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Table 3

Types of Training Requested by Assessment Professionals Examples

Theme	Response Examples
Assessment Culture Development	<p>“Cultivating a culture of assessment - being the "glue" to effectively strengthen assessment efforts on campus when you're a small (or 1-person) office”</p> <p>“A stronger network with assessment directors from other similar institutions. “</p> <p>“Anything and everything related to assessment culture development”</p>
Skills	<p>“a publication with specific examples of statistical tests on data and how results lead to curricular changes”</p> <p>“Best practices workshops, applied techniques and strategies, dashboard software options, making the best use of an assessment budget”</p> <p>“Change management, Facilitation skills, Pedagogy skills, Data analysis , Data visualization”</p> <p>“I need more refreshers on statistics, and a general introduction to using R and/or Power BI, in particular. “</p> <p>“I think training on developing leadership skills would be beneficial to myself and other assessment professionals. “</p> <p>“Qualtrics training; visual representation of data; creating infographics, including narrative as qualitative data”</p>

Note. Table 3 lists examples of participant responses for the themes of Question 3.

Discussion

The results present several connections to recent literature but also provide valuable insight into assessment professionals' professional development needs. For example, the high response of “None” and “Not applicable” on the assessment credentials participants had completed is an item needing further research. In addition to the diverse academic backgrounds of APs, one-third of the respondents did not have relevant credentialing to prepare for the role. This exhibits the field’s need

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to create a recommended set of skills and dispositions for APs (Morrow et al., 2022) and why a holistic approach to their preparation and professional development is needed (Ariovich et al., 2019).

Confirming Horst and Prendergast (2020), the findings indicate APs approach to training and professional development from a backward design. They seek to learn or enhance skillsets after starting the position to meet its demands. While necessary to cope with the various levels of APs preparedness, this type of reactive process is not conducive to effective professional development (Ariovich et al., 2019; Horst & Prendergast, 2020). Additionally, as indicated by Ariovich et al. (2019), APs responded with conferences, journals, and workshops as the most common locations for obtaining professional development. These options are often offered or supported by institutions and national organizations and can be inconsistent in their content (Nicholas & Slotnick, 2018) as well as not accessible to all due to costs of registration and travel (Pastore et al., 2019). Further research is needed to determine if these are the only viable approaches for APs or if the creation of potentially more effective and inclusive approaches would be an option.

The findings illustrate the topics APs have sought out and still look for more professional development after beginning their roles. Participants' responses regarding training received since becoming an AP were predominantly about new or refresher training in statistics, data visualization, various software and applications, and project management. These responses demonstrate the most in-demand topics for new APs and provide a foundational guide for professional development. Requested professional development responses echoed this theme of interdisciplinary skills needed, with the addition of a leadership topic. A holistic approach to assessment curriculum and training may be best to provide options for the majority of assessment professionals. It is significant, however, that assessment culture development training was the most requested topic. Previous research supports this request, as nearly one in four APs advise a lack of assessment culture at their institution as one of their most difficult barriers (Ariovich et al., 2019). This is further illustrated in the lack of faculty responses to this question on the survey and indicates that assessment concepts are not an immediate concern for them. Remedying this missing specific professional development has the potential to create and sustain a successful culture of assessment key for an institution's continuous improvement processes (Ariovich et al., 2019; Nicholas & Slotnick, 2018).

Limitations and Future Research

Although the study provides a starting point for professional development in assessment, it does have limitations. The original data set from the Morrow et al. (2022) study contained 285 total responses, and it is reasonable to state this is not a comprehensive sample of all APs available in the United States. Future research should strive to reach out to APs in order to gain more detailed feedback, such as institution level and other characteristics, prior to the creation of an initial professional development design to ensure it has a holistic approach. This research should also include other data collection methods, such as interviews and focus groups, in addition to a survey (Morrow et al., 2022).

While the study provides the immediate topics needed in professional development and modality options to deliver the material, the selection may still be limited in the overall picture of assessment.

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For example, to increase the assessment culture at an institution, a balance would be needed between supporting the creation of culture while strengthening faculty participation, a key component in this process, and providing additional resources to APs (Ariovich et al., 2019; Horst & Prendergast, 2020; Nicholas & Slotnick, 2018). Recent research is only beginning to investigate the relationships between these aspects and the competencies and skills needed in APs and faculty to ensure success (Clucas Leaderman, E., & Polychronopoulos, G. B., 2019; Horst & Prendergast, 2020; Morrow et al., 2022).

Similarly, once these competencies and skills have been defined and a professional development curriculum created, how does the field create a dissemination plan for the training? In addition to the established conferences, webinars, and workshops, are there methods utilizing technologies to be accessible to most APs? Further research is needed to determine if these are the only viable approaches for APs or if the creation of potentially more effective approaches would be an option. For example, virtual software and applications, such as Zoom, Teams, Discord, Slack, etc., have been highlighted in the recent pandemic (Ali et al., 2020). These could be options to answer how the profession can create local, state, and regional assessment consortiums to provide accessible professional development, such as online data bootcamps or refresher courses, and community engagement.

Conclusion

Professional development in assessment is in its infancy. Its history is filled with a la carte and on-the-job trainings as the need arises for professionals with an eclectic set of academic backgrounds. This study sets the grounds for exploring these backgrounds and determining how the assessment profession can lay a formal foundation of professional development. Future research will illustrate how these topics and concepts can be expanded and their content taught to all APs in cycles to aid in furthering the profession.

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Appendix A: Full Table of the Most Common Codes for Question 1—Types of Credentials Completed Prior To Becoming an Assessment Professional

Codes	Count
additional courses	64
none	23
certificate	19
academy	13
leadership	10
not applicable	7
university training	8
teaching	6
workshop	6
accreditation reviewer training	2
institutional reports	1
other	1

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Appendix B: Full Table of the Most Common Codes for Question 2—Types of Training Engaged in While an Assessment Professional

Codes	Count
assessment conferences	74
workshop	33
webinars	20
accreditation reviewer training	19
additional courses	17
statistics	12
academy	11
books	9
software/applications	9
data visualization	9
certification	7
coding	6
listservs	6
online training	6
other	6
teaching	6
esm	5
leadership	5
MOOC	5
project management	5
professional experience	4

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IR training	3
literature	3
networking	3
none	3
podcasts	3
psychometrics	3
cultural competency	3
analytics	2
assessment curriculum	2

WHAT SHOULD BE IN AN ASSESSMENT PROFESSIONAL'S TOOLKIT?

Appendix C: Full Table of the Most Common Codes for Question 3—Types of Training Requested by Assessment Professionals

Codes	Count
assessment culture development	19
data visualization	16
leadership	16
software/applications	12
data analytics	11
statistics	10
workshops/academies	8
best practices	6
pedagogy	6
assessment conferences	5
assessment consortiums	4
cultural competence	4
communication	4
discipline-specific	4
Excel	4
graduate degree	4
methods	4
not applicable	4
other	4
certificate program	3

WHAT SHOULD BE IN AN ASSESSMENT PROFESSIONAL'S TOOLKIT?

Time for PD	3
affordable	2
coaching	2
coding	2
counseling	2
esm training	2
evaluation certificate	2
flexible	2
graduate certificate	2
higher ed	2
integrated planning	2
knowledge management	2
marketing/fundraising	2
micro-level culture	2
Microsoft office skills	2
networking	2
non-academic unit training	2
presentation skills	2
reporting best practices	2
SLO mapping	2
surveys	2
team work	2
use of real time data	2

WHAT SHOULD BE IN AN ASSESSMENT PROFESSIONAL'S TOOLKIT?

inclusivity in teams	1
more indepth on current topics presented in many workshops/conferences	1
more of all types	1
none	1
not sure	1
online professional development	1
plenty in the field already	1

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