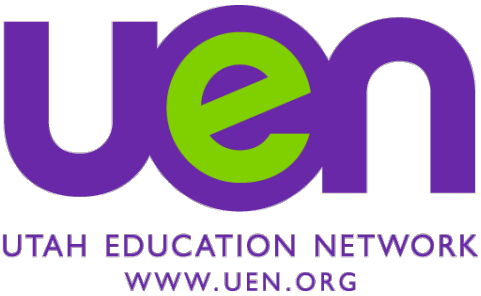

Inventory of Supports and Practices: Teaching and learning with technology.

Prepared for the Utah Education Network

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Executive Summary

With an intent to prioritize professional learning and development based on district and educator needs, the Utah Education Network (UEN) initiated a statewide inventory of districts and educators. The inventory documented current practices along with educational technology-related professional development needs.

We invited the educational technology leader in each of Utah's 41 districts to complete a survey describing their school district's efforts and needs. The 29 responding districts represent 93.1% of the state's public school students. We also asked educators across the state to complete a survey that recorded individual strengths and needs. Educator responses represented 40 school districts (819 total responses) and 57 charter schools (92 responses). We weighted the data for equal representation of districts in our analysis of district educator responses and charter schools in our analysis of charter educator responses.

The inventory effort produced a deep array of findings which are presented in this report. What follows are five priority headlines based on statewide district and educator responses.

1. **High Demand for Technology-focused Standards Support from UEN.** Districts consistently expressed the need for support from UEN as they continue to infuse technology-related practices into schools and classrooms. On average, 60.3% of districts indicated the need for additional or new UEN support across the nine technology-focused standards we assessed. The greatest needs involved facilitating student learning in the areas of collaboration, creativity, communication, and critical thinking, with 65.0%-70.0% of responding districts requesting training to support their educators. District and charter educator responses largely mirrored the district-stated needs and priorities.

2. **Support for Educational Leaders Becomes a Priority.** While educators regularly benefit from UEN training and support, the need to support the state's educational leaders has never been higher. Here, a majority of districts indicated the need for more UEN support for their Site Leaders/Principals (68.4% of districts) and District Leaders/Central Office Department Heads (63.1% of districts).

3. **Increasing Demands to Meet Training and Performance Support Needs.** The COVID-19 pandemic demanded increased use of technology. In the post-COVID climate, increased technology use has heightened demand for UEN's face-to-face professional development (48.4% of district educators and 56.9% of charter educators indicating intent to use) as well as the need for online video training that provides just-in-time support (71.0% of district educators and 70.6% of charter educators indicating intent to use).

4. **Software and Learning Tools are No Longer Add-ons.** In 2022, software and learning tools are central to the daily efforts of educators and students. They are no longer considered ancillary. Universal access to software and tools, plus the training to optimize their use, is critical to achieving success for all students. When rating their need for UEN support, 40-50% of district respondents requested new or additional support for each of the nine key learning tools/resources queried.

5. **Canvas Use is Broad, with Opportunities to Heighten Educator Success.** Weighted data suggested 74% of district educators and 59% of charter educators are making use of Canvas. However self-assessed success rates for those using Canvas found roughly 40% of district educators and 30% of charter educators indicating inconsistent, very little, or no success and a need for additional support.

The full complement of findings from this statewide inventory provide insight into strengths, needs, and opportunities that can inform UEN's strategic planning and resulting investments into the future.

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Background

This document shares results of a statewide inventory of support and practices in teaching with technology. This effort is predicated on the following realities facing educators who attempt to provide effective, technology-rich learning experiences in the classroom:

- Hard technologies (devices) and the tools and resources they deliver are evolving and will continue to advance in terms of their sophistication, functionality and penetration in schools.
- The body of knowledge about the successful use of technology is constantly shifting and growing.
- The needs of students change throughout the year, and from year-to-year.
- Over time, the instructional focus of a school or district is likely to change as a result of state and federal influences.

As such, it is critical to examine current practice, identify needs, and evolve professional learning and accompanying resources to ensure the success of those who educate students across the state of Utah.

Teaching and learning in the 21st century are inexorably tied to technology. Barr and Sykora (2015) describe the challenge that this dynamic relationship poses to education:

> Technological changes are accelerating at a breathtaking pace and are challenging the conventional approach to primary and secondary education. As leaders and educators explore the opportunities afforded by the rapid changes, they must also consider how these innovations impact the process of learning and teaching (p. 1).

It is the responsibility of every educational organization to ensure that the use of technology increases student learning and improves teacher practice. Professional learning offers an effective solution to achieve this goal systemically and systematically.

Professional learning, also termed *professional development*, is how teachers acquire new *skills and knowledge* in order to effectively implement and integrate new practices into their classrooms and instruction. Through technology-targeted professional learning, the *value* of using technology is established and the teacher's *confidence* in using technology for learning is instilled. Without purposeful and systematic attention to these three domains, consistent and continuing performance is unlikely to occur (Rossett, 2009; Hale, 2006; Gilbert, 1978).

The Inventory Efforts

During 2015-2016, UEN conducted a statewide inventory of professional learning offerings. These results were used to inform planning and resulting actions that have taken place since the data was collected.

Our current effort is similar to the initial inventory. However, it is important to note that the data between the two inventories are not comparable. This is for good reason. The intervening years have seen many changes to state standards and priorities, not to mention advancements in learning technologies. The 2022 inventory reflects a different set of technology-focused standards and tool/resources. However, like the first inventory, by taking stock of what is and what can be, we inform UEN's work into the future.

An Inventory of Professional Learning Offerings: Approach

A needs assessment effort was initiated to document the current educational technology professional development[1] offerings across the state of Utah by district. In addition, we solicited responses from classroom educators who were asked to describe their own experiences—including needs.

Both inventories focused on state-defined, technology-related standards, as well as technology-based tools for teaching and learning.

This report presents key findings from each of the two inventories of professional development. It is intended to help establish priorities to address statewide professional learning efforts.

Methodology

Two professional development inventory instruments were created through collaboration between UEN and Dr. James Marshall (San Diego State University). These instruments presented key topics to district personnel and educators to assess the availability of professional development in each district, as well as the unmet need for professional development and the current modes of delivery. Ratings were recorded for nine key technology-focused state standards and nine technology-based tools, as defined in Table 1.

Table 1: Inquiry Topics

Technology-focused Standards	Tools/Resources
• Pedagogical principles for teaching with technology (PICRAT, TPAC, SAMR, Triple E, etc.) • Professional growth and leadership in education technology • Personalized and competency-based learning • Digital Citizenship • Information Literacy • Facilitating student learning: Collaboration • Facilitating student learning: Creativity • Facilitating student learning: Communication • Facilitating student learning: Critical Thinking	• Nearpod • Canvas • Adobe • Utah's Online Library • UEN's eMedia • Scrible • Apple • Google • Microsoft

The following pages present summary findings from the needs assessment. We begin with findings from district responses, and then move to educator responses. In the latter case, we separate educator responses into two groups: those who work in districts and those who work in charter schools.

[1] The term *professional development* was used in the inventory for the purpose of communicating with administrators who typically use this term when referring to *professional learning*.

District Findings

The following findings are representative of the 29 districts who responded to our invitations to complete the inventory[2]. Appendix I provides a listing of the responding districts. Based on the statewide student enrollment figures reported in fall 2022 (597,461), data from responding districts presented in this report represent 555,944 students. As a result, these findings represent districts with 93.1% of the state's students.

Current Professional Development Offerings

The initial question asked district respondents to indicate whether, for each of the 18 standards/tools, their districts were currently providing professional development (PD). For those who did offer PD, we recorded the provider(s). In some cases, districts indicated PD coming from multiple sources.

The following table presents percentages to indicate whether the 29 responding districts (a) provide PD; and, (b) if so, the source(s) of PD. Shaded cells indicate the greatest percentage of responses for each topic. It is important to note that UEN funds a technology trainer in each of the Regional Service Centers. Thus, both the "Rely on UEN" and "Utah Regional Service Center" columns represent UEN-provided support.

Table 2: Current Professional Development—Standards, by Provider

Topic	No PD	Rely on UEN	Utah Regional Service Center	District Provides	Outside Sources
	Percentage of Districts Selecting				
1. Pedagogical principles for teaching with technology (PICRAT, TPAC, SAMR, Triple E, etc.)	26.1	21.7	17.4	60.9	8.7
2. Professional growth and leadership in education technology	17.4	30.4	21.7	60.9	8.7
3. Personalized and competency-based learning	21.7	26.1	13.0	52.2	17.4
4. Digital Citizenship	13.0	43.5	13.0	65.2	8.7
5. Information Literacy	17.4	30.4	8.7	56.5	4.3
6. Facilitating student learning: Collaboration	21.7	8.7	13.0	56.5	13.0
7. Facilitating student learning: Creativity	17.4	13.0	13.0	65.2	13.0
8. Facilitating student learning: Communication	21.7	8.7	13.0	60.9	13.0
9. Facilitating student learning: Critical Thinking	17.4	13.0	13.0	65.2	13.0
Average Percentage	**19.3**	**21.7**	**14.0**	**60.4**	**11.1**

[2] While Charter Schools were invited to respond to the survey, we recorded only one complete response. Because the data does not approach a representative sample, they are not reported.

The majority of districts offer at least some professional development for each of the nine technology-focused standards. Additionally, districts most frequently indicated providing the PD themselves relative to other listed sources. On average across the nine topics, UEN was the second most frequently consulted provider. Outside sources were least likely to be used as a source of PD.

The same type of query was then presented to responding districts using the list of nine technology tools/resources. The following table presents a summary of district responses.

Table 3: Current Professional Development—Tools/Resources, by Provider

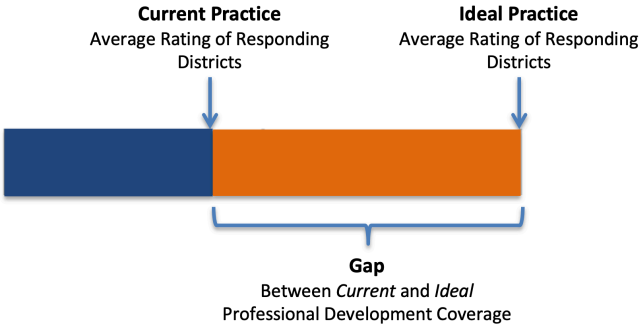
Topic	No PD	Rely on UEN	Utah Regional Service Center	District Provides	Outside Sources
	Percentage of Districts Selecting				
1. Nearpod	0.0	43.5	30.4	78.3	17.4
2. Canvas	0.0	39.1	21.7	82.6	17.4
3. Adobe	17.4	30.4	13.0	43.5	21.7
4. Utah's Online School Library	4.3	60.9	21.7	34.8	0
5. UEN's eMedia	8.7	65.2	21.7	26.1	0
6. Scrible	21.7	47.8	17.4	26.1	0
7. Apple	30.4	21.7	8.7	56.5	17.4
8. Google	4.3	21.7	21.7	78.3	21.7
9. Microsoft	47.8	4.3	8.7	43.5	13.0
Average Percentage	**15.0**	**37.2**	**18.3**	**52.2**	**12.1**

Again and on average, just over half indicated providing their own PD to educators in their districts. With regard to tools, a greater percentage of districts (37.2%) turned to UEN for tool/resource PD, when compared to technology-focused standards PD (21.7%).

Gap Analysis: Current vs. Ideal Professional Development Offerings

Next, district respondents were asked to indicate the "ideal" amount of professional development for each of the 18 inquiry topics. A gap analysis was then performed using the "current" and "ideal" ratings. The gap analysis figure relies on mean (or average) responses for all questions. To calculate a mean, each point on the four-point scale was assigned a value (0=No PD, 1=Limited PD, 2=Moderate PD, and 3=Significant PD).

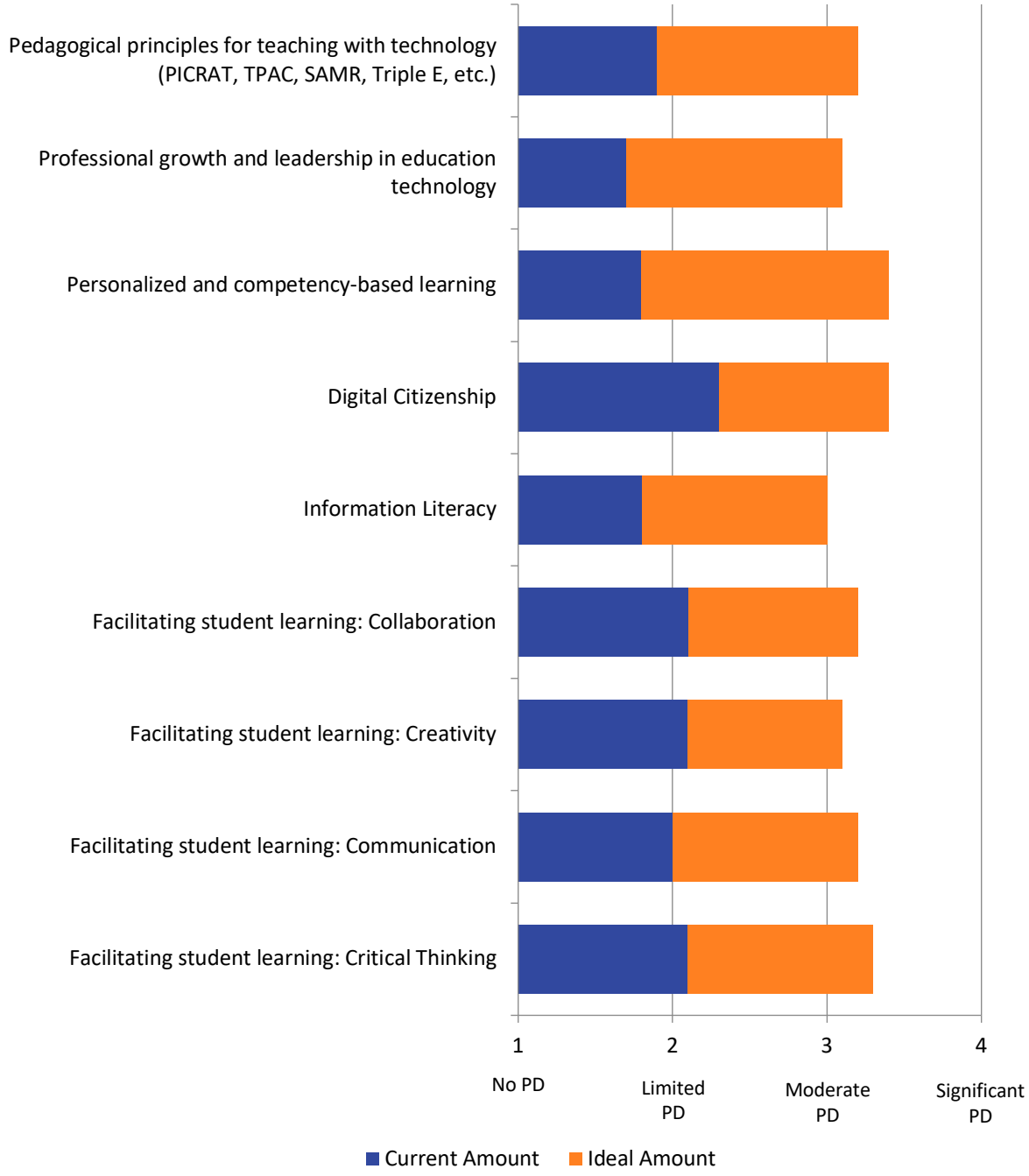
Interpreting the Figure:



The upper end of the blue shaded bar indicates the current amount, on average, of professional development offered for each given topic based on the previously described four-point scale; the upper end of the orange bar indicates the ideal amount, on average, of professional development sought by districts. Thus, the orange shaded area, in total, indicates the size of the gap between current and ideal professional development coverage. Wider bars indicate greater gaps. On average, districts' current professional development coverage fell short when measured against their indicated ideal for all topics.

Figure 1 on the following page provides mean ratings for current and ideal amounts of PD for the technology-focused standards items in our inventory.

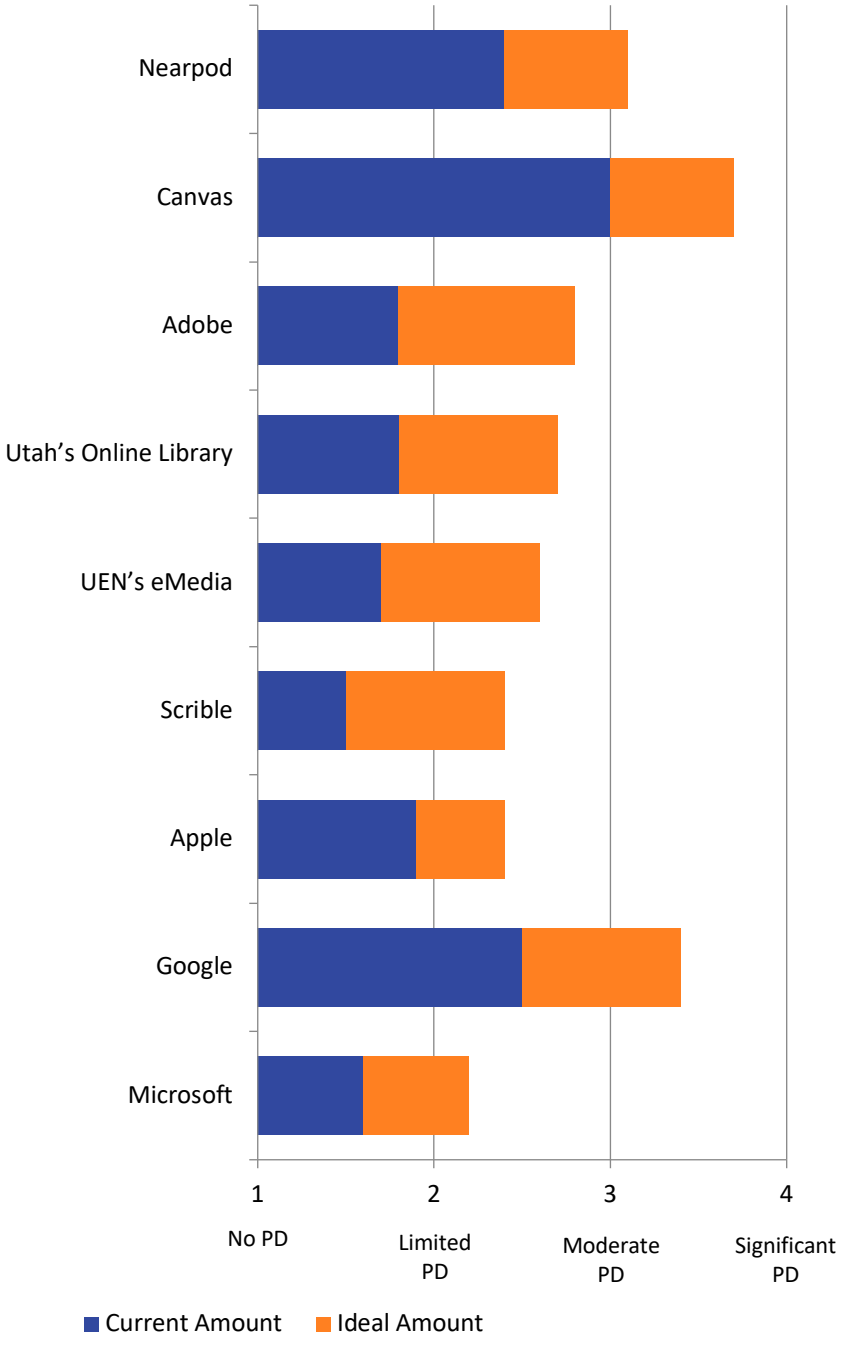
Figure 1: Gap Analysis—Current and Ideal Amounts of Professional Development—Standards



Personalized and competency-based learning proved to be the area with the greatest gap between current PD and ideal. This was followed by Professional growth and leadership in education technology, and then Pedagogical principles for teaching with technology.

The same gap analysis was performed for the nine tools/resources that were identified as priorities in our needs assessment effort. The following figure summarizes mean scores between current and ideal amounts of PD.

Figure 2: Gap Analysis—Current and Ideal Amounts of Professional Development—Tools/Resources



Interestingly, Adobe was identified to be the tool/resource with the greatest gap. That said, districts indicated that the ideal amount was still relatively low (2.8 on the 4-point scale). Four of the remaining tools/resources were rated identically in terms of the mean difference between current and ideal: Utah's Online Library, UEN's eMedia, Scrible, and Google.

Current Professional Development Delivery Modes

The inventory explored how professional development is currently being delivered to educators in responding districts. The following table presents the percentage of technology-focused standards being delivered via face-to-face training, webinars, self-paced training, online videos (just-in-time learning), and online text and visual-based references.

Table 4: Professional Development Delivery Modes—Standards

Topic	No Training Provided	Face-to-Face one day or less	Face-to-Face more than one day	Webinar Training synchronous, real-time online instruction	Self-paced Training asynchronous online instruction	Short "how-to" online videos used at time of need	Online text/visual-based references used at time of need web pages, PDFs
	Percentage of Districts Selecting						
1. Pedagogical principles for teaching with technology (PICRAT, TPAC, SAMR, Triple E, etc.)	26.1	43.5	13.0	8.7	30.4	21.7	17.4
2. Professional growth and leadership in education technology	30.4	39.1	13.0	13.0	30.4	17.4	13.0
3. Personalized and competency-based learning	30.4	34.8	26.1	8.7	30.4	17.4	13.0
4. Digital Citizenship	17.4	30.4	26.1	13.0	43.5	30.4	21.7
5. Information Literacy	26.1	26.1	17.4	0.0	34.8	26.1	30.4
6. Facilitating student learning: Collaboration	26.1	30.4	21.7	4.3	30.4	30.4	30.4
7. Facilitating student learning: Creativity	21.7	30.4	21.7	4.3	30.4	34.8	34.8
8. Facilitating student learning: Communication	26.1	30.4	21.7	4.3	30.4	30.4	30.4
9. Facilitating student learning: Critical Thinking	21.7	30.4	21.7	4.3	30.4	34.8	34.8
Average Percentage	**25.1**	**32.8**	**20.3**	**6.7**	**32.3**	**27.0**	**25.1**

Face-to-face and self-paced training proved, on average, to be the two most frequently used modes for delivering PD.

Table 5 presents delivery mode summaries for the nine tools/resources pursued in our inventory.

Table 5: Professional Development Delivery Modes—Tools/Resources

Topic	**No Training Provided**	**Face-to-Face** one day or less	**Face-to-Face** more than one day	**Webinar Training** synchronous, real-time online instruction	**Self-paced Training** asynchronous online instruction	**Short "how-to" online videos used at time of need**	**Online text/visual-based references used at time of need** web pages, PDFs
	Percentage of Districts Selecting						
1. Nearpod	0.0	47.8	17.4	26.1	60.9	47.8	47.8
2. Canvas	0.0	52.2	43.5	17.4	65.2	47.8	52.2
3. Adobe	34.8	30.4	13.0	8.7	39.1	26.1	30.4
4. Utah's Online Library	21.7	39.1	4.3	8.7	26.1	21.7	26.1
5. UEN's eMedia	30.4	26.1	4.3	4.3	17.4	13.0	30.4
6. Scrible	39.1	21.7	4.3	8.7	21.7	13.0	26.1
7. Apple	30.4	43.5	8.7	4.3	26.1	21.7	43.5
8. Google	13.0	39.1	26.1	13.0	43.5	39.1	43.5
9. Microsoft	43.5	30.4	8.7	13.0	17.4	17.4	34.8
Average Percentage	**23.7**	**36.7**	**14.5**	**11.6**	**35.3**	**27.5**	**37.2**

When it came to tools/resources, once again face-to-face and self-paced training proved to be the most frequently utilized PD modes.

Support from UEN

The next inventory query asked district respondents to indicate their need for professional development support from UEN. Respondents accomplished this by selecting one of five possible options, as indicated in the following table. Ultimately, these responses provided the opportunity to quantify met and unmet needs for professional development support.

The following table indicates the percentage of respondents selecting each of the five possible options for our first nine topics—the technology-focused standards. In addition, the final column tabulates the percentage of respondents indicating a need for additional or new support (i.e., no current support provided) from UEN. Shaded cells indicate the greatest percentage of responses for each topic across the five response options.

Table 6: District Professional Development Needs from UEN—Standards

Topic	No Change in UEN Support		Requests for Additional, or New, UEN Support			Total Percentage Requesting *Additional* or *New* UEN Support
	Do not need support from UEN	Currently receive support from UEN, and it is sufficient	Currently receive support from UEN, but could use more	Do not receive support from UEN, but could use:		
				some support if available	*significant* support if available	
	Percentage of Districts Selecting					
1. Pedagogical principles for teaching with technology (PICRAT, TPAC, SAMR, Triple E, etc.)	20.0	25.0	5.0	**35.0**	15.0	55.0
2. Professional growth and leadership in education technology	15.0	25.0	5.0	**45.0**	10.0	60.0
3. Personalized and competency-based learning	**26.3**	21.1	10.5	**26.3**	15.8	52.6
4. Digital Citizenship	**25.0**	20.0	20.0	15.0	20.0	55.0
5. Information Literacy	20.0	25.0	15.0	**30.0**	10.0	55.0
6. Facilitating student learning: Collaboration	20.0	15.0	10.0	**45.0**	10.0	65.0
7. Facilitating student learning: Creativity	20.0	15.0	10.0	**45.0**	10.0	65.0
8. Facilitating student learning: Communication	20.0	15.0	15.0	**40.0**	10.0	65.0
9. Facilitating student learning: Critical Thinking	15.0	15.0	15.0	**40.0**	15.0	70.0
Average Percentage	**20.1**	**19.6**	**11.7**	**35.7**	**12.9**	**60.3**

For each of the nine technology-focused standards, districts indicated the need for additional support from UEN. Critical thinking was the most, and highest, requested topic for additional support. However, 50% or greater of responding districts indicated the need for additional support across each of the nine topics. Interestingly, 26.3% of districts indicated no need for additional support for the topic, Personalized and competency-based learning. This was the

topic rated by district respondents to have, on average, the greatest gap between current and ideal levels of PD (see Figure 1).

The same query was presented to district respondents, this time focused on tools/resources.

Table 7: District Professional Development Needs from UEN—Tools/Resources

Topic	No Change in UEN Support		Requests for Additional, or New, UEN Support			Total Percentage Requesting *Additional* or *New* UEN Support
	Do not need support from UEN	Currently receive support from UEN, and it is sufficient	Currently receive support from UEN, but could use more	Do not receive support from UEN, but could use:		
				some support if available	*significant* support if available	
	Percentage of Districts Selecting					
1. Nearpod	10.0	**50.0**	25.0	15.0	0.0	40.0
2. Canvas	15.0	**45.0**	20.0	15.0	5.0	40.0
3. Adobe	5.0	**45.0**	10.0	35.0	5.0	50.0
4. Utah's Online Library	5.0	**55.0**	20.0	15.0	5.0	40.0
5. UEN's eMedia	5.0	**50.0**	20.0	20.0	5.0	45.0
6. Scrible	25.0	30.0	10.0	**35.0**	0.0	45.0
7. Apple	**40.0**	15.0	5.0	35.0	5.0	45.0
8. Google	25.0	**30.0**	15.0	20.0	10.0	45.0
9. Microsoft	**50.0**	5.0	10.0	30.0	5.0	45.0
Average Percentage	20.0	36.1	15.0	24.4	4.4	43.9

District responses suggested, overall, less need for UEN support with regard to tools/resources. Here, for the majority of topics, more than half of the responding districts indicated their current support was sufficient. Scrible was the one tool where 35.0% of districts indicated needing "some support," although, when combined with the other two support categories, the need was still limited to 45% of responding districts.

A final query in this section asked district respondents to indicate the extent to which UEN was meeting their professional development support needs for a range of job classifications. The following table summarizes district responses for each type of PD audience.

Table 8: District Professional Development Support from UEN

Topic	Isn't meeting our district's needs	Partly meeting our district's needs	Currently meeting most of our district's needs	Currently meeting all, or almost all, of our district's needs
	Percentage of Districts Selecting			
1. New Classroom Teachers	26.3%	31.6%	31.6%	10.5%
2. Experienced Classroom Teachers	5.3%	47.4%	36.8%	10.5%
3. District Trainers (Train the Trainer personnel)	5.3%	26.3%	47.4%	21.1%
4. Site Leaders (Principals)	31.6%	36.8%	21.1%	10.5%
5. District Leaders (Central Office Department Heads)	36.8%	26.3%	26.3%	10.5%

Microcredential Priorities

We shared that the Utah Education Network, in collaboration with other state agencies, is developing a series of microcredentials/badges for educators. We then asked district respondents to think about their needs and aspirations, and indicate a priority for a range of microcredentials/badges.

Again, these queries were made using our 18 topics, beginning with the technology-focused standards. In addition to the percentages by category, we have included a mean response figure. This is the average score for each topic based on the five-point priority scale.

Table 9: District Microcredential/Badge Priorities—Standards

Topic	No need/ Interest	Low Priority	Medium Priority	High Priority	Highest Priority	Mean Response
	Percentage of Districts Selecting					
1. Pedagogical principles for teaching with technology (PICRAT, TPAC, SAMR, Triple E, etc.)	0.0	15.0	50.0	20.0	15.0	3.4
2. Professional growth and leadership in education technology	0.0	26.3	42.1	26.3	5.3	3.1
3. Personalized and competency-based learning	0.0	20.0	15.0	40.0	25.0	3.7
4. Digital Citizenship	0.0	15.8	21.1	26.3	36.8	3.8
5. Information Literacy	0.0	15.0	40.0	35.0	10.0	3.4
6. Facilitating student learning: Collaboration	0.0	20.0	35.0	30.0	15.0	3.4
7. Facilitating student learning: Creativity	5.0	15.0	40.0	30.0	10.0	3.3
8. Facilitating student learning: Communication	0.0	20.0	40.0	25.0	15.0	3.4
9. Facilitating student learning: Critical Thinking	0.0	15.0	40.0	15.0	30.0	3.6

Results generally mirrored PD priorities shared in earlier responses. Digital Citizenship proved to be the greatest priority, followed by Personalized and competency-based learning, and then Facilitating student learning: Critical Thinking.

Table 10: District Microcredential/Badge Priorities—Tools/Resources

Topic	No need/ Interest	Low Priority	Medium Priority	High Priority	Highest Priority	Mean Response
	Percentage of Districts Selecting					
1. Nearpod	0.0	20.0	40.0	30.0	10.0	3.3
2. Canvas	0.0	15.0	15.0	30.0	40.0	4.0
3. Adobe	0.0	30.0	50.0	15.0	5.0	3.0
4. Utah's Online Library	0.0	45.0	35.0	20.0	0.0	2.8
5. UEN's eMedia	5.0	40.0	40.0	15.0	0.0	2.7
6. Scrible	15.0	25.0	50.0	10.0	0.0	2.6
7. Apple	26.3	21.1	36.8	15.8	0.0	2.4
8. Google	5.0	10.0	30.0	25.0	30.0	3.7
9. Microsoft	30.0	25.0	25.0	15.0	5.0	2.4

Microcredential/Badge priorities for tools/resources were, on average, lower when compared to technology-focused standards. Here, Canvas and Google were the two priority topics—both rated significantly higher than the other seven topics. Nearpod was rated as the third greatest priority.

Software/Tools

The final area of inquiry was designed to inform future state-level purchasing of software and technology tools. The first question presented five different resources and asked districts to indicate their need/interest in each.

Table 11: District Interest in Software/Tools

Software Tool	No need/ Interest	Already Licensed in District	Low Interest	Medium Interest	High Interest	Highest Interest
	Percentage of Districts Selecting					
1. MasteryConnect	30.0	20.0	5.0	15.0	20.0	10.0
2. Canvas Studio	20.0	5.0	20.0	30.0	20.0	5.0
3. Canvas Impact	25.0	0.0	15.0	30.0	15.0	15.0
4. Derivita	15.0	15.0	10.0	25.0	25.0	10.0
5. Flocabulary	25.0	15.0	25.0	25.0	5.0	5.0

Collapsing the "high" and "highest" categories, Derivita becomes the resource with the highest interest, followed by Canvas Impact. In addition to the UEN list of five resources, districts were given the opportunity to indicate other resources of value. The following three responses were received.

- Canvas Catalog
- Kami, Seesaw, Edpuzzle
- Nearpod, Adobe, Lucid, Kami, Loom

We then posed the following question to respondents to anticipate funding priorities and the potential of cost sharing.

> *Now, if UEN were able to bundle software at lower cost, what would your district or charter school be willing to afford for each of the following software tools?*

Table 12: District Interest in Bundled Software/Tools

Software/Tool	No need/interest in software	Would use only if fully paid by UEN	Willing to share cost with UEN	Willing to fully pay, but would want a lower group price
	Percentage of Districts Selecting			
1. MasteryConnect	10.0	30.0	30.0	30.0
2. Canvas Studio	5.0	70.0	20.0	5.0
3. Canvas Impact	20.0	60.0	20.0	0.0
4. Derivita	15.0	40.0	35.0	10.0
5. Flocabulary	25.0	55.0	10.0	10.0

Educator Findings: Educators from Districts and Charter Schools

A second survey instrument was designed to solicit input from educators across the state. Respondents were asked to indicate the name of their district or charter school, which allowed us to "weight" the data to be representative of each grouping.

The raw data represented 40 school districts with 819 responses, and 57 charter schools with 92 responses. In some cases, we received a single response from a district or a charter school. In other cases, here were multiple responses. For example, while some school districts had one educator response, two districts had considerable responses, with 158 and 114 surveys received.

To give equal voice to each of the 40 districts in our district analysis, and the 57 charter schools in our charter school analysis, we weighted the data accordingly. Thus, when multiple respondents came from the same organization, their responses were "pooled," with each counting toward a "share" of the total. In the case of districts, this meant that each of the 40 districts' total responses counted as $1/40^{th}$ of the sample—whether they had one response, or 158. The same approach was used with charter school responses.

The following summary of findings is based on each of the two weighted samples. It presents district and charter school responses side-by-side.

Current Professional Development Participation

The initial question asked educators about PD participation. Using the same 18 categories—across both technology-focused standards and resources/tools, respondents indicated whether they had participated in PD over the past two years (2020-2022).

The following two tables present the distribution of results for standards and tools/resources.

Table 13: Professional Development Participation—Standards

Topic	Group	I did not participate in PD on this topic	I participated in school- or district-provided PD on this topic	I participated in Utah Education Network-provided PD on this topic	I participated in Utah regional service center-provided PD on this topic	I participated in PD provided by an outside source (e.g., textbook publisher, etc.)
		Percentage of Educators Selecting				
1. Pedagogical principles for teaching with technology (PICRAT, TPAC, SAMR, Triple E, etc.)	District	35.0	18.5	7.2	1.8	7.0
	Charter	49.6	13.2	3.2	0.4	4.4
2. Professional growth and leadership in education technology	District	19.6	31.4	9.8	3.2	10.1
	Charter	26.1	28.0	7.4	2.2	14.1
3. Personalized and competency-based learning	District	22.9	29.0	5.3	3.7	12.9
	Charter	20.8	29.5	5.8	2.2	20.7
4. Digital Citizenship	District	29.3	21.7	8.4	1.7	8.9
	Charter	29.9	21.7	8.0	3.1	11.1
5. Information Literacy	District	29.4	18.6	6.2	5.7	7.7
	Charter	31.3	23.9	5.8	1.8	11.1
6. Facilitating student learning: Collaboration	District	17.9	34.5	6.8	6.1	7.1
	Charter	19.4	37.8	5.0	3.9	15.8
7. Facilitating student learning: Creativity	District	28.5	22.5	6.8	5.2	6.6
	Charter	31.2	25.5	5.0	3.1	13.2
8. Facilitating student learning: Communication	District	28.2	24.5	6.4	4.1	6.9
	Charter	28.9	30.4	5.0	3.1	12.0
9. Facilitating student learning: Critical Thinking	District	26.3	25.7	6.5	5.5	9.1
	Charter	26.8	28.7	5.8	3.1	16.4

District and charter school educator responses did not differ in significant ways. Collaboration, Critical Thinking, and leadership in educational technology proved to be the most frequently trained topics.

Table 14: Professional Development Participation—Tools/Resources

Topic	Group	I did not participate in PD on this topic	I participated in school- or district-provided PD on this topic	I participated in Utah Education Network-provided PD on this topic	I participated in Utah regional service center-provided PD on this topic	I participated in PD provided by an outside source (e.g., textbook publisher, etc.)
		Percentage of Educators Selecting				
1. Nearpod	District	22.1	32.7	7.9	3.8	6.6
	Charter	36.1	18.5	5.6	1.5	8.5
2. Canvas	District	12.6	38.7	11.2	5.6	6.5
	Charter	21.9	33.3	9.4	0.6	8.5
3. Adobe	District	46.2	6.5	4.0	3.6	5.3
	Charter	54.6	3.2	0.9	0.6	7.3
4. Utah's Online Library	District	43.4	8.5	8.8	4.4	1.9
	Charter	42.1	15.1	4.7	2.3	7.6
5. UEN's eMedia	District	45.5	5.1	8.0	3.9	1.3
	Charter	50.9	8.2	7.4	2.3	7.2
6. Scrible	District	51.0	6.0	3.3	.6	3.0
	Charter	52.4	7.3	5.2	0.6	0.9
7. Apple	District	50.2	5.2	4.8	.5	2.9
	Charter	54.1	7.9	0.6	0.0	4.4
8. Google	District	33.6	18.9	8.2	1.2	7.5
	Charter	28.7	27.4	6.4	1.8	14.9
9. Microsoft	District	51.9	5.5	1.6	.6	3.7
	Charter	55.8	10.0	1.8	1.8	6.1

With regard to certain tools (Nearpod, Canvas), differences between district and charter educators were significant. Otherwise, results proved similar between the two groups, overall.

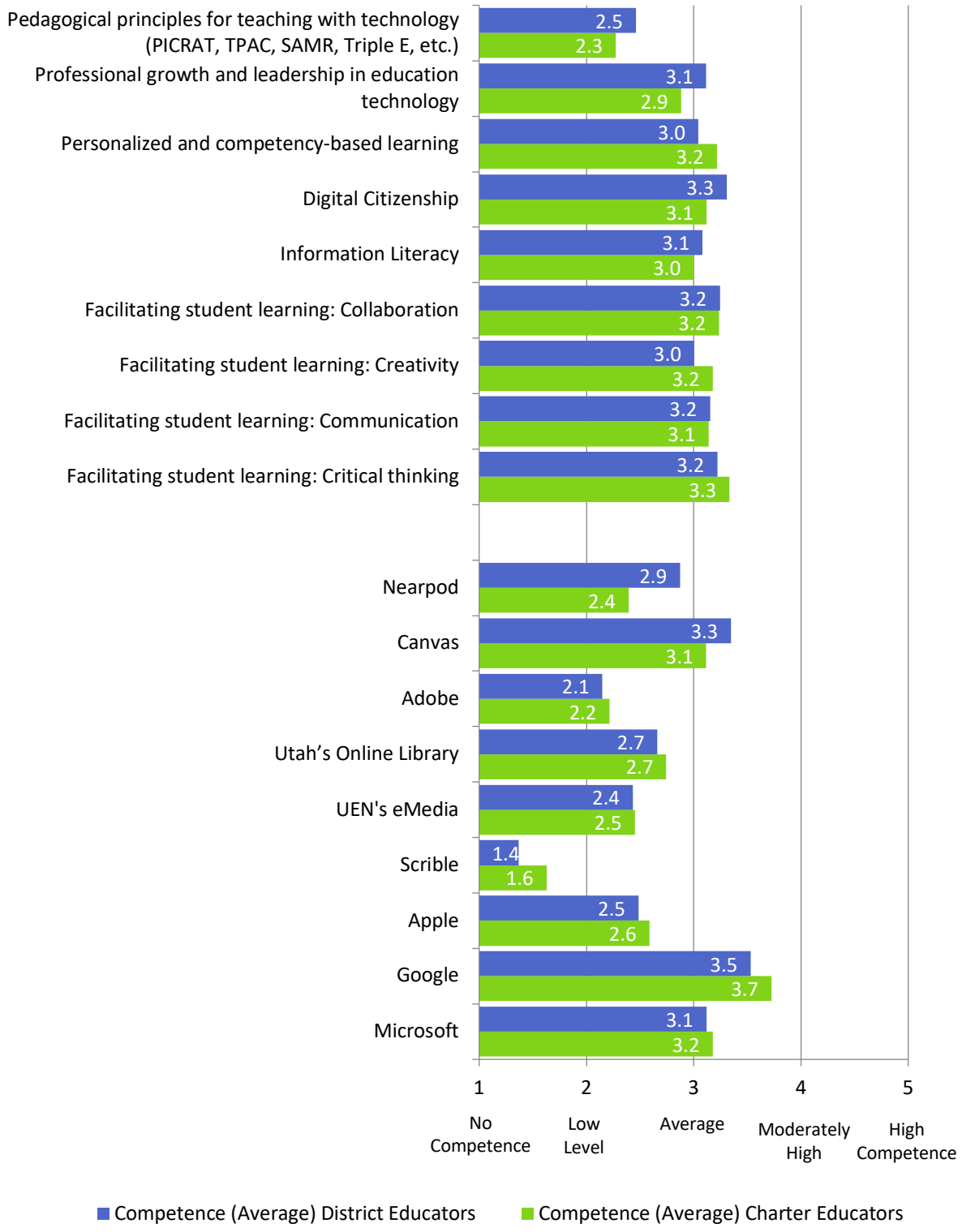
Needs Analysis: Competence and Need for Professional Development

Educators were asked to self-assess their (a) level of competence and (b) level for additional PD for each of the 18 topics (9 technology-related standards, and 9 tools/resources). Ratings were accomplished using two five-point Likert scales, as indicated at the base of the following two figures.

Using educator-assigned ratings and weighted data, we calculated a mean score for each of the 18 topics to indicate, for each educator respondent group, their average level of competency and need for additional PD.

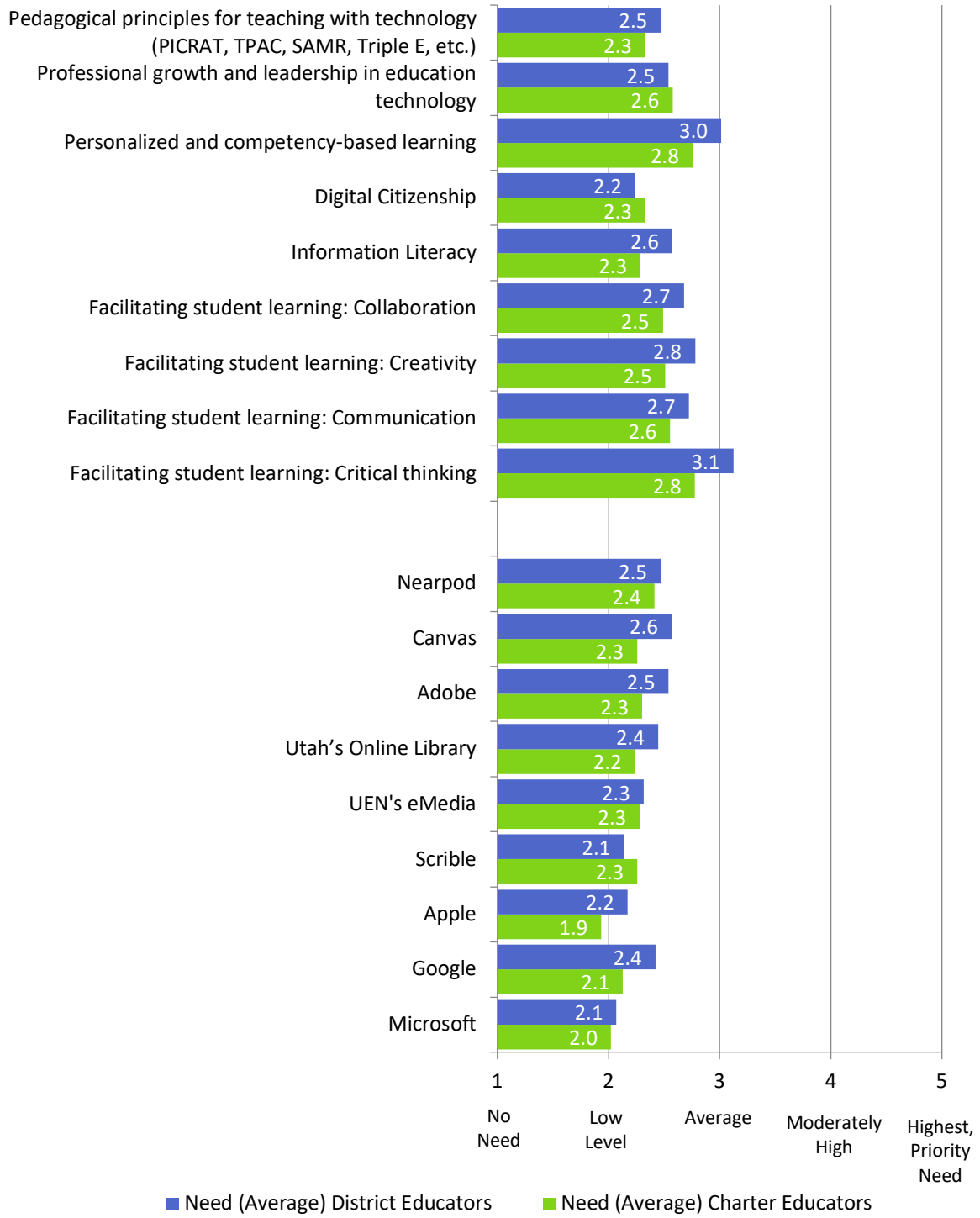
Figure 3 presents self-assigned competence levels for each of the 18 topics queried.

Figure 3: Current Levels of Self-Assessed Competence—Standards and Tools/Resources



With competence ratings established, we then asked responding educators to indicate their need for PD. The following figure presents average ratings, by topic, for both district and charter educators.

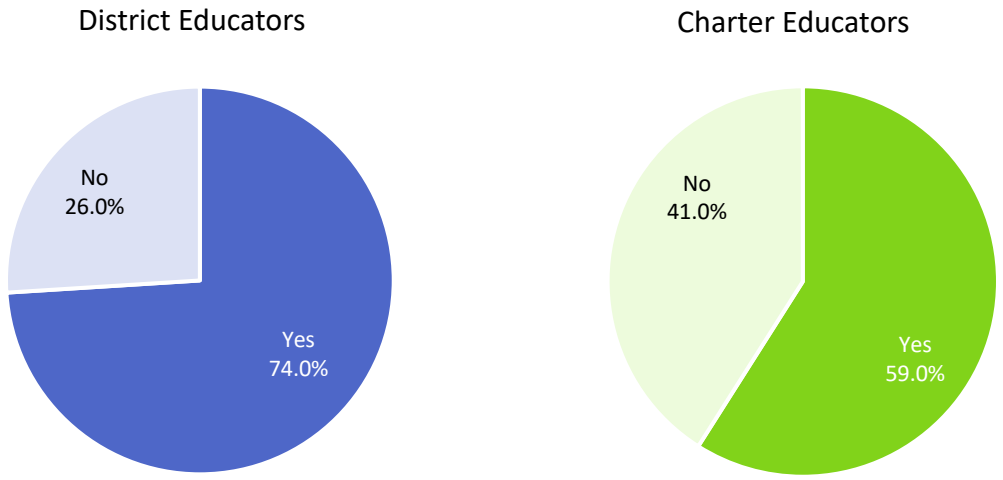
Figure 4: Current Professional Development Level of Need—Standards and Tools/Resources



Canvas Use and Needs

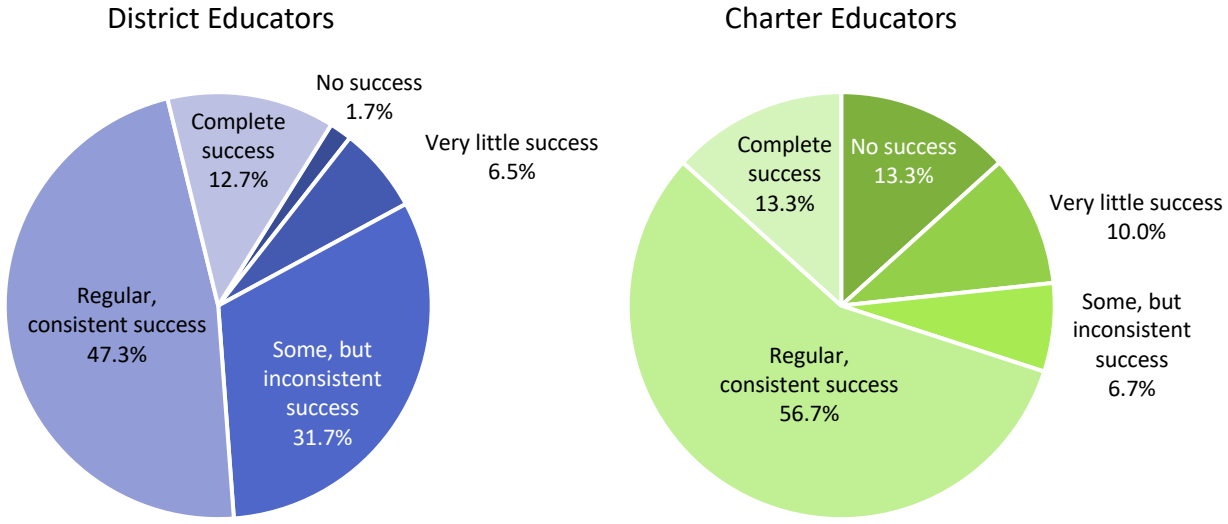
Our next queries related to Canvas. We were interested in Canvas use, success, and need for support. Figure 5 presents the percentage of responding educators (weighted data) who use Canvas.

Figure 5: Canvas Use



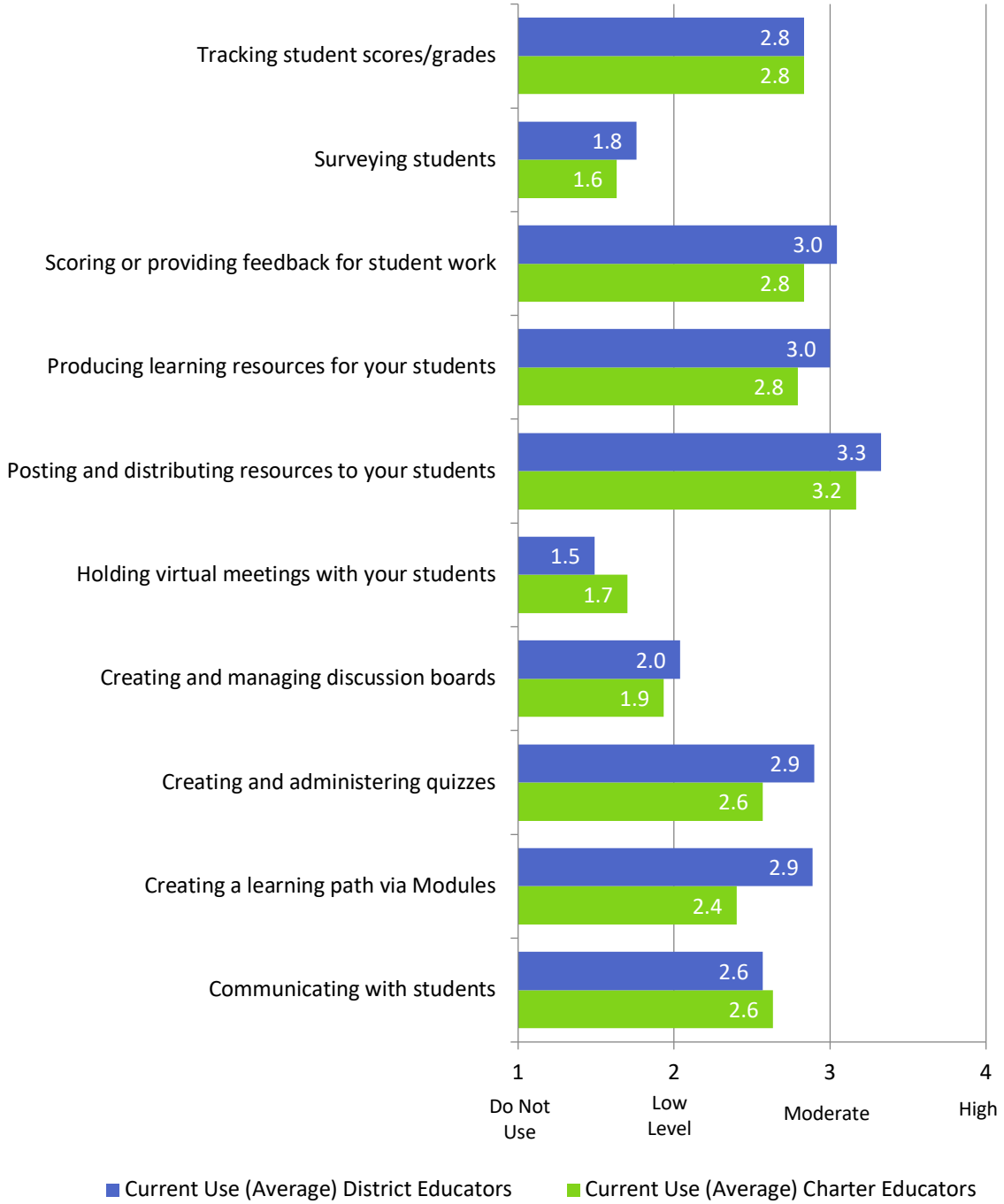
Another query asked educators who use Canvas to indicate their success using this learning management system. Figure 6 presents the distribution of responses, using weighted data for each group.

Figure 6: Self-Assessed Success Using Canvas



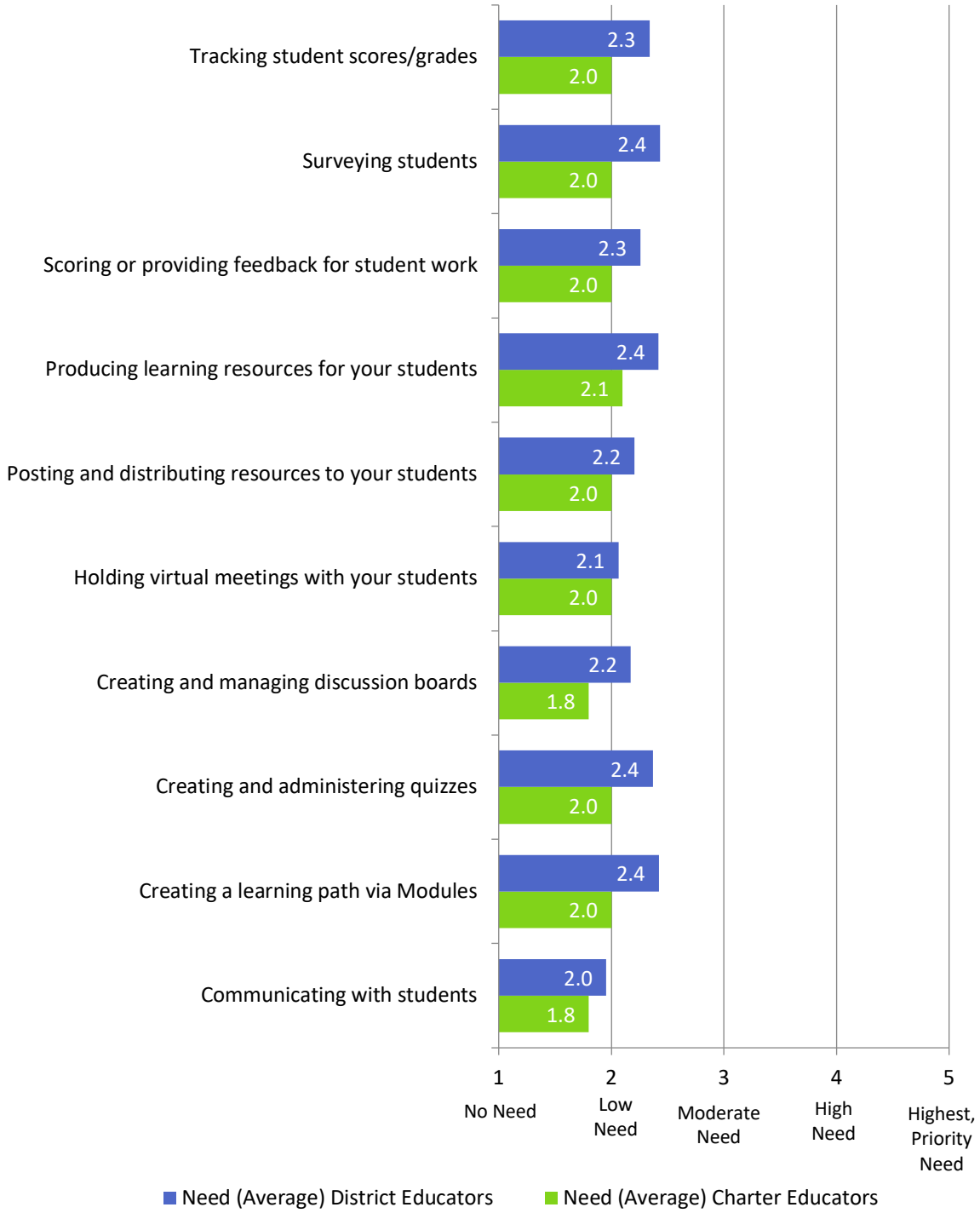
We then pursued deeper inquiry with educators who were using Canvas. Using a variety of Canvas features, we asked them to indicate their current usage levels. Figure 7 summarizes the average usage levels for both district and charter educators using the four-point Likert scale shown at the base of the figure. All averages are based on weighted data for each group.

Figure 7: Current Canvas Usage Levels, by Task



Mirroring previous queries, we then asked educator-respondents to indicate their needs for future professional development using each of the identified Canvas tools/features. Figure 8 presents the mean need score for each group (weighted data) using the four-point scale.

Figure 8: Current Canvas Professional Development Needs, by Task



For educators who didn't currently use Canvas, we offered the list of potential barriers shown in Table 15 below. Respondents were encouraged to select any and all of the barriers that applied. The table summarized the percentage of respondents (weighted) selecting each barrier, by group.

Table 15: Canvas Barriers Frequencies

Topic	Percentage of District Educators Indicating	Percentage of Charter Educators Indicating
1. Am unable to make Canvas support what my students need	5.9	4.3
2. Canvas interface/operation is too complicated	3.1	2.2
3. Canvas isn't user friendly	6.4	4.3
4. Currently using a different Learning Management System	3.3	9.8
5. Haven't received training on Canvas	5.1	4.3
6. Lack the necessary time to build resources in Canvas	5.2	5.4
7. Other	3.7	12.0

Professional Development Delivery

Next, we asked educator-respondents about modes for professional development delivery. Specifically, we posed the following question:

> *Think about the way or ways you prefer to receive professional development and support.*
>
> *Assuming you had a need for the content being offered, which of the following delivery methods would you be open to using?*

Table 16 summarizes responses received from each group using weighted data.

Table 16: Professional Development Delivery Preferences

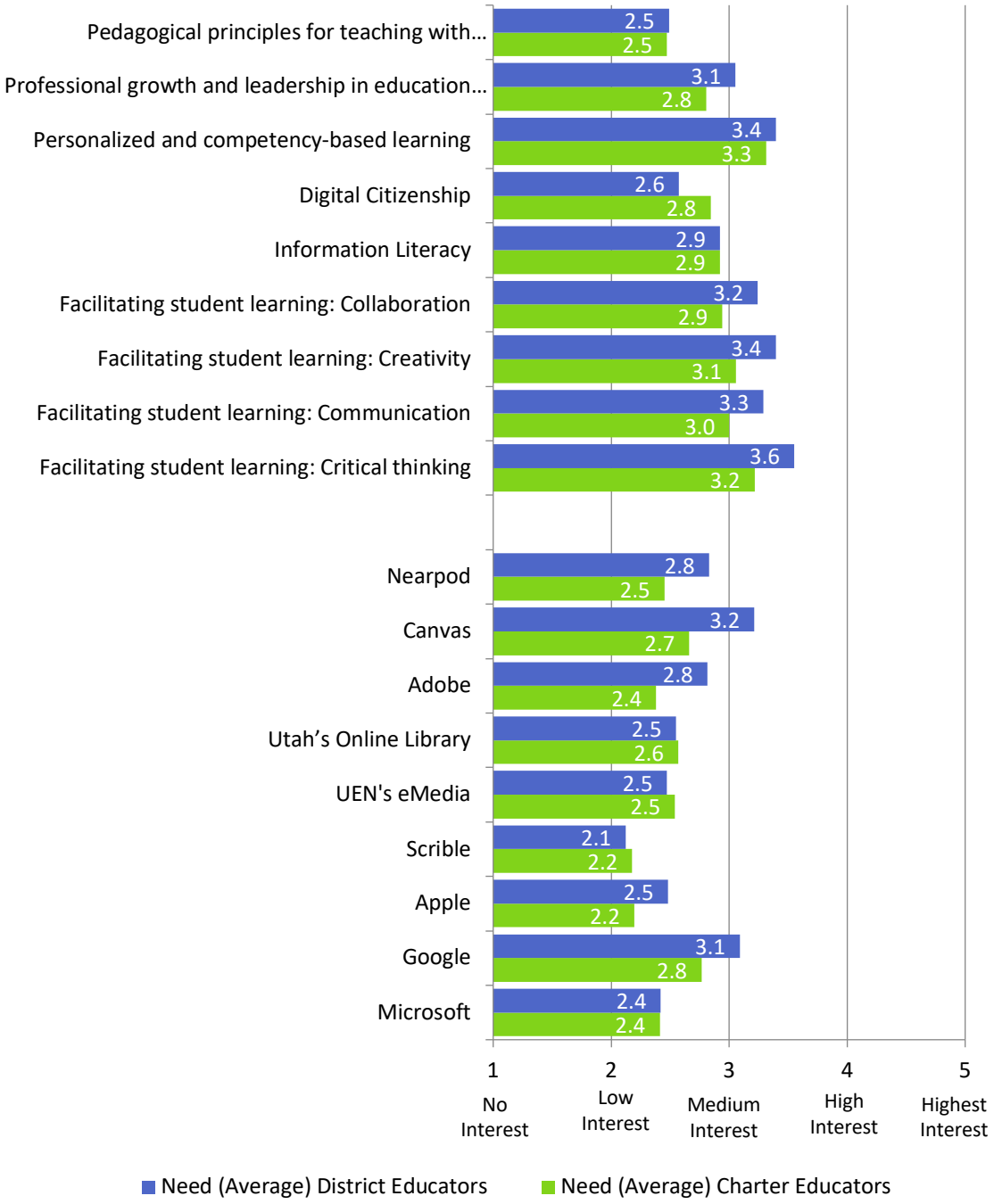
Topic	Group	I would not use	I might use	I would use
		Percentage of Educators Selecting		
1. Face-to-face training	District	11.2	40.4	48.4
	Charter	7.8	35.3	56.9
2. Webinar training (synchronous, real-time online instruction)	District	8.4	56.5	35.1
	Charter	2.0	60.0	38.0
3. Self-paced training (asynchronous, online instruction)	District	11.3	22.9	65.8
	Charter	5.9	23.5	70.6
4. Short "how-to" online videos used at time of need	District	5.6	23.4	71.0
	Charter	3.9	25.5	70.6
5. Online text- and visual-based references used at time of need (webpages, PDFs, etc.)	District	13.2	35.1	51.7
	Charter	9.8	33.3	56.9

Overall, respondents slightly favored self-paced training and short “how-to” online videos at time of need. Responses differed little between district and charter educator respondents.

Microcredential Priorities

Again, we shared information about the Utah Education Network's participation in developing a series of microcredentials/badges for educators. We then asked educators to think about their needs and aspirations, and indicate a priority for a range of microcredentials/badges—all based on the 18 topic (9 technology-focused standards and 9 tools/resources). Figure 9 presents mean scores for each topic, which allows for a side-by-side comparison of district and charter educator responses.

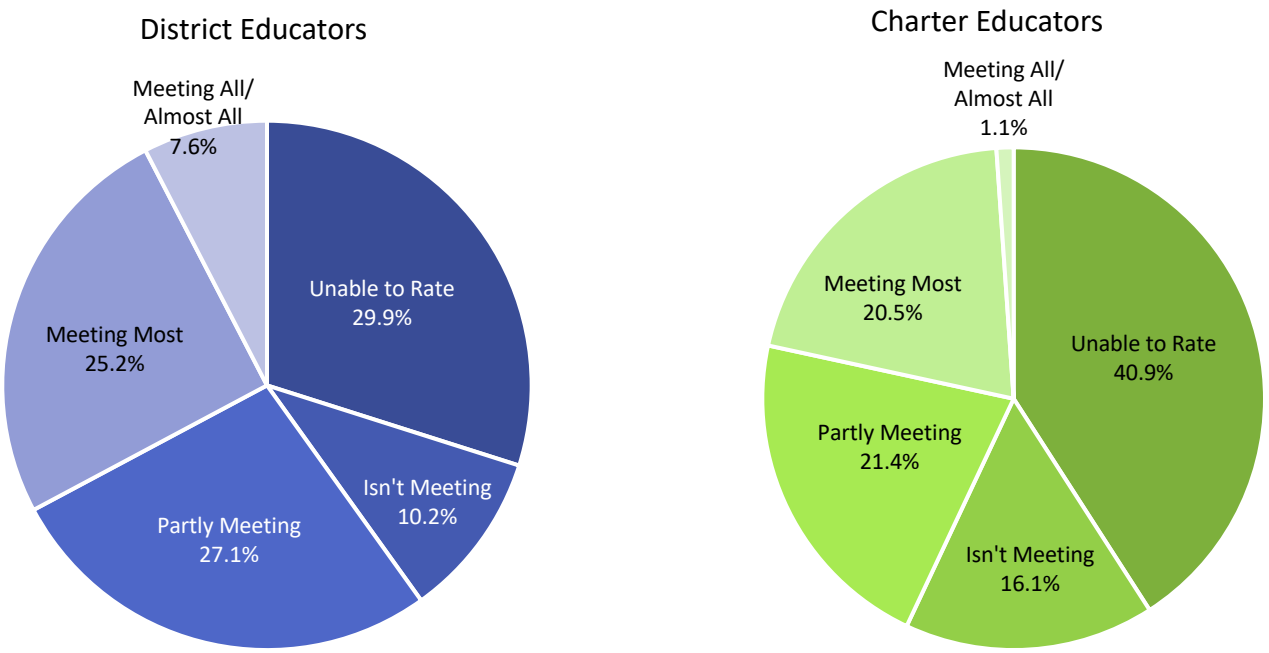
Figure 9: Microcredential Value Ratings—Standards and Tools/Resources



Support from UEN

Like district responses, we asked educators to indicate the extent to which UEN and the supports it provides were meeting their needs. Figure 10 presents the weighted responses for both district and charter educators.

Figure 10: Extent to Which UEN's Current Offerings Meet Your Needs



Significant numbers of respondents (29.9% and 40.9%) indicated being unable to offer a rating for this question. Comments suggest that educators may not always be familiar with where particular supports originate. Relatively low numbers (10.2% and 16.1%) indicated UEN wasn't meeting their needs. Thus, the majority of respondents assessed UEN as meeting their needs—partly, mostly, or fully.

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Appendix I: District Participants

Alpine District

Box Elder District

Cache District

Canyons District

Daggett District

Davis District

Emery District

Grand District

Granite District

Iron District

Jordan District

Juab District

Kane District

Millard District

Morgan District

Murray District

Nebo District

North Summit District

Ogden City District

Park City District

Provo District

Salt Lake District

Sevier District

South Sanpete District

Tintic District

Tooele District

Washington District

Wayne District

Weber District

Appendix II: Educator Participants—Districts and Charter Schools

Districts

Alpine District

Beaver District

Box Elder District

Cache District

Canyons District

Carbon District

Daggett District

Davis District

Duchesne District

Emery District

Garfield District

Grand District

Granite District

Iron District

Jordan District

Juab District

Kane District

Logan City District

Millard District

Morgan District

Murray District

Nebo District

North Sanpete District

North Summit District

Ogden City District

Park City District

Piute District

Provo District

Salt Lake District

San Juan District

Sevier District

South Sanpete District

South Summit District

Tintic District

Tooele District

Uintah District

Wasatch District

Washington District

Wayne District

Weber District

Charter Schools

Academy for Math Engineering & Science

American Academy of Innovation

American Leadership Academy

American Preparatory Academy

Ascent Academies of Utah

Athlos Academy of Utah

Beehive Science & Technology Academy

Canyon Grove Academy

Canyon Rim Academy

Channing Hall

Davinci Academy

Edith Bowen Laboratory School

Endeavor Hall

Esperanza School

Franklin Discovery Academy

Freedom Preparatory Academy

Gateway Preparatory Academy

Good Foundations Academy

Hawthorn Academy

Intech Collegiate Academy

Itineris Early College High

Jefferson Academy

John Hancock Charter School

Leadership Learning Academy

Legacy Preparatory Academy

Lincoln Academy

Merit College Preparatory Academy

Moab Charter School

Monticello Academy

Mountain Heights Academy

Mountain Sunrise Academy

Mountain West Montessori Academy

Mountainville Academy

Navigator Pointe Academy

No. UT. Acad. for Math Engineering & Science

North Star Academy

Odyssey Charter School

Ogden Preparatory Academy

Open Classroom

Pacific Heritage Academy

Paradigm High School

Promontory School of Expeditionary Learning

Providence Hall

Reagan Academy

Rockwell Charter High School

Spectrum Academy

Summit Academy

Syracuse Arts Academy

Terra Academy

The Center for Creativity Innovation and Discovery

Utah Career Path High School

Utah Connections Academy

Utah International Charter School

Utah Military Academy

Vanguard Academy

Venture Academy

Weilenmann School of Discovery