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School and District Leaders as Instructional Experts: What We Are Learning

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As research shows, the quality of teaching is the most important variable affecting student learning. As such it follows that school and district leaders' most important job is to support teachers in improving their instructional practice. But how well are our nation's school and district leaders equipped for this task? Have they developed sufficient expertise in instruction to guide and support teachers in improving their practice at the pace and scale necessary to ensure high-quality learning for each and every student?

Since 2007, faculty and staff at the Center for Educational Leadership at the University of Washington (UWCEL) have been working to answer this question. Using a uniquely designed assessment process that is based on a comprehensive instructional framework called the 5 Dimensions of Teaching and Learning™ (5D™), we are beginning to quantify and understand the actual capacities of our school and district leaders around the country. The results indicate that there is much work to be done. Among over 4,000 principals, central office leaders, instructional coaches, and others who have taken our assessment to date, most fall somewhere between "novice" and "emerging" on a four-point rubric. In short, too few leaders charged with leading the improvement of instruction have developed sufficient expertise to identify high-quality teaching and explicate what makes that teaching "high quality."

Fortunately, we also know that leaders can develop their expertise over time.

Critical questions for instructional leaders

We recognize that successful school leaders demonstrate expertise across many different leadership domains. In order to gauge school and district leaders' instructional leadership capacity in particular, however, we set out to quantify their expertise along the dimensions and habits most critical to supporting the improvement of teaching practice:

1. **Observation and Analysis**: What do leaders notice and wonder about teaching and learning when they are in classrooms observing instruction?

2. **Feedback**: Based upon what they notice and wonder about teaching and learning, what feedback would they provide for the teacher?

3. **Leading Professional Learning**: How would they use what they noticed and wondered about within and across classrooms to lead, guide and support the professional learning of their teachers?

These three questions comprise the heart of Dimension II in CEL's 4 Dimensions of Instructional Leadership Framework (4D™), which is a research-based framework identifying those leadership practices that are most closely tied to the improvement of teaching and learning. As such we believe the skills of *observation and analysis*, *feedback*, and *leading professional learning* are foundational for instructional leadership success. School leaders must develop a finely honed lens for recognizing quality teaching along with the language repertoire necessary to explicate precisely the difference between high-quality and low-quality teaching. In addition, school leaders must know how to provide *useful* feedback to teachers – the kind of feedback that can actually help teachers improve their practice. Finally, school leaders must have the instructional depth of understanding necessary to recognize patterns of teaching across classrooms so that they can more strategically support the professional learning necessary to help teachers improve their practice.

Defining high-quality teaching

In order to assess and measure the instructional leadership expertise among school and district leaders, UWCEL faculty first had to define *high-quality teaching*. Our faculty conducted a thorough review of the literature in both the learning sciences and effective teaching practices, and mined the instructional expertise from some of the very best teachers and school leaders

across the country. In addition, they convened a panel of expert observers of instruction and had them watch lessons in different subject areas and across many grade levels. During those sessions our faculty asked the observers to explain what they noticed and wondered about as they watched each lesson; to share what feedback they would provide the teacher and how (based upon what they were observing) they would support the teacher's professional learning.

Developing the 5D framework and rubric

The result of this process was the development of UWCEL's 5 Dimensions of Teaching and Learning (5D) instructional framework which identifies a vision for high-quality teaching in five dimensions and 13 subdimensions (see Figure 1). Along with the vision, the framework provides critical questions for school and district leaders to consider as they observe the teaching and learning process. The 5D instructional framework is now in its fourth iteration as our faculty and staff continually deepen their own understanding of the complex and sophisticated nature of teaching, along with the leadership necessary to improve teachers' practice.

Figure 1.

5 Dimensions and 13 Subdimensions of Teaching and Learning	
Purpose	1. Standards
	2. Learning Target and Teaching Points
Student Engagement	3. Intellectual Work
	4. Engagement Strategies
	5. Talk
Curriculum & Pedagogy	6. Curriculum
	7. Teaching Approaches and/or Strategies
	8. Scaffolds for Learning
Assessment for Student Learning	9. Assessment
	10. Adjustments
Classroom Environment & Culture	11. Use of Physical Environment
	12. Classroom Routines and Rituals
	13. Classroom Culture

With the development of the 5D instructional framework, a four-point rubric was created that differentiates novice from expert practice along each of the five dimensions and 13 subdimensions. The rubric captures four levels of expertise: novice instructional leader; emerging instructional leader; developing instructional leader; expert instructional leader. It is important to note that the expert level of instructional leader is, indeed, a very high bar that represents the collective wisdom and intelligence of our expert panel of observers. At the same time, the expert level is somewhat artificial insofar as it suggests that expertise is finite; we know that as long as one is committed to learning, one can continue to grow his or her expertise over time. There is nothing finite about this process. That said, Figure 2 illustrates some of the key rubric elements. The full rubric is considerably more detailed.

Figure 2.

Levels of Expertise	
1 **A novice instructional leader**	▪ Does not notice or think about key concepts when observing classroom practice. ▪ Conveys obvious misconceptions about or misuses key concepts. ▪ Makes gross judgments without any supporting evidence whatsoever.
2 **An emerging instructional leader**	▪ Recounts what transpired in the lesson. ▪ Identifies, mentions, or names something related to key concepts without any elaboration. ▪ Uses relevant and appropriate terminology without clear evidence of understanding. ▪ May ask questions without elaboration as to why (mimicking questions, perhaps, memorized from previous professional development). ▪ May offer directives for improvement without justification or elaboration.
3 **A developing instructional leader**	▪ Discusses and/or considers key concepts with enough specificity to demonstrate basic understanding. ▪ Elaborates responses with specific examples/evidence from the observed lesson. ▪ Expresses wonder or questions about observations (e.g., what is behind teaching decisions). ▪ Offers alternatives to teaching decisions or suggests ways to improve with some specificity and/or elaboration. ▪ Demonstrates basic understanding that teaching decisions impact student learning and how this occurs.
4 **An expert instructional leader**	Demonstrates all the markers of category 3 plus: ▪ Identifies and critically analyzes more layers of complexity in the observed lesson. ▪ Conveys clear ideas/vision for powerful and equitable teaching and learning. ▪ Communicates and supports ideas with richer detail to illustrate evidence/examples from the observed lesson. ▪ Demonstrates pedagogical content knowledge relevant to the specific content area of lesson. ▪ Models an inquiry stance. ▪ Analytically unpacks teaching decisions and offers possible theories. ▪ Links questions and analysis directly to evidence of student learning.

A large gap between novices and experts

Since the development of the 5D framework and 5D Assessment rubric, our UWCEL faculty have led hundreds of principals and central office leaders on learning walkthroughs (also known as instructional rounds) that allow them and us to gauge their own ability to observe and analyze instruction. The four-point rubric above corroborates what we have observed dozens of times in terms of the difference between novices and experts. Specifically:

- Novice instructional leaders do not notice or think about the critical elements of instruction and often convey obvious misconceptions or share erroneous information about those key elements. However, leaders with greater expertise can identify and discuss key instructional elements with specificity; expand upon what they see using examples and detailed evidence from the observed lesson; articulate inquiry-based questions about observations (for example, what is behind teaching decisions); and offer alternatives to teaching decisions or suggest ways to improve the lesson with specificity.

- Novices tend to make evaluative judgments more quickly based on superficial understanding. By contrast, experts tend to withhold judgment until they can describe in evidentiary terms what they are noticing along with important questions they may have that will inform leadership strategies and actions.

- There is a vast difference between experts and novices in terms of what they wonder about and how they go about posing relevant problems of leadership practice based on what they did or did not notice. Experts in particular tend to be much more metacognitive in their formulation of next steps and aligned leadership actions.

5D online assessment for school and district leaders

With the development of the 5D instructional framework and corresponding rubric, the next step was to build an assessment process. UWCEL staff created an online assessment in which participants log on to a secure website, watch a 15-20 minute language arts or math lesson (either at the elementary or secondary level), and write a response to three questions:

1. What do you notice about teaching and learning in this classroom?

2. What conversation would you want to have with this teacher?

3. How, if at all, does this inform your thinking about and planning for professional development?

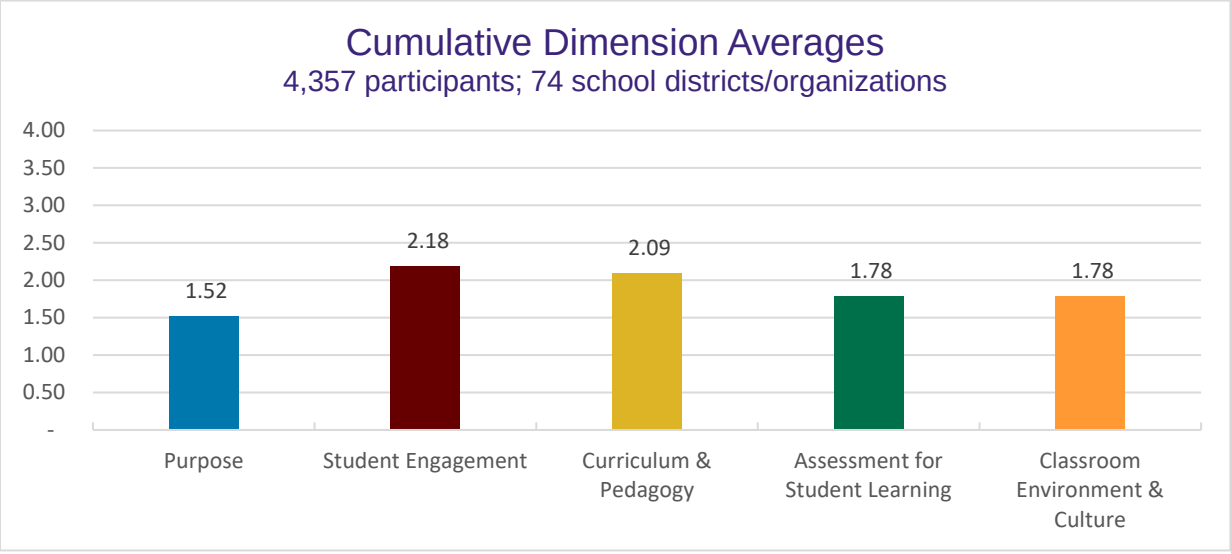
The assessment process was designed to replicate as closely as possible the observation and write-up process school leaders use on a regular basis in their teacher supervision and/or evaluation. There is no time limit on the assessment. Participants can write as little or as much as they deem appropriate.

Once a participant electronically submits his/her response, two UWCEL-trained raters independently rate each response using the four-point rubric to assess the level of expertise across each of the five main dimensions and 13 subdimensions of the 5D instructional framework. With careful training and ongoing calibration, historically we have been able to maintain over a 90 percent inter-rater reliability.

Findings

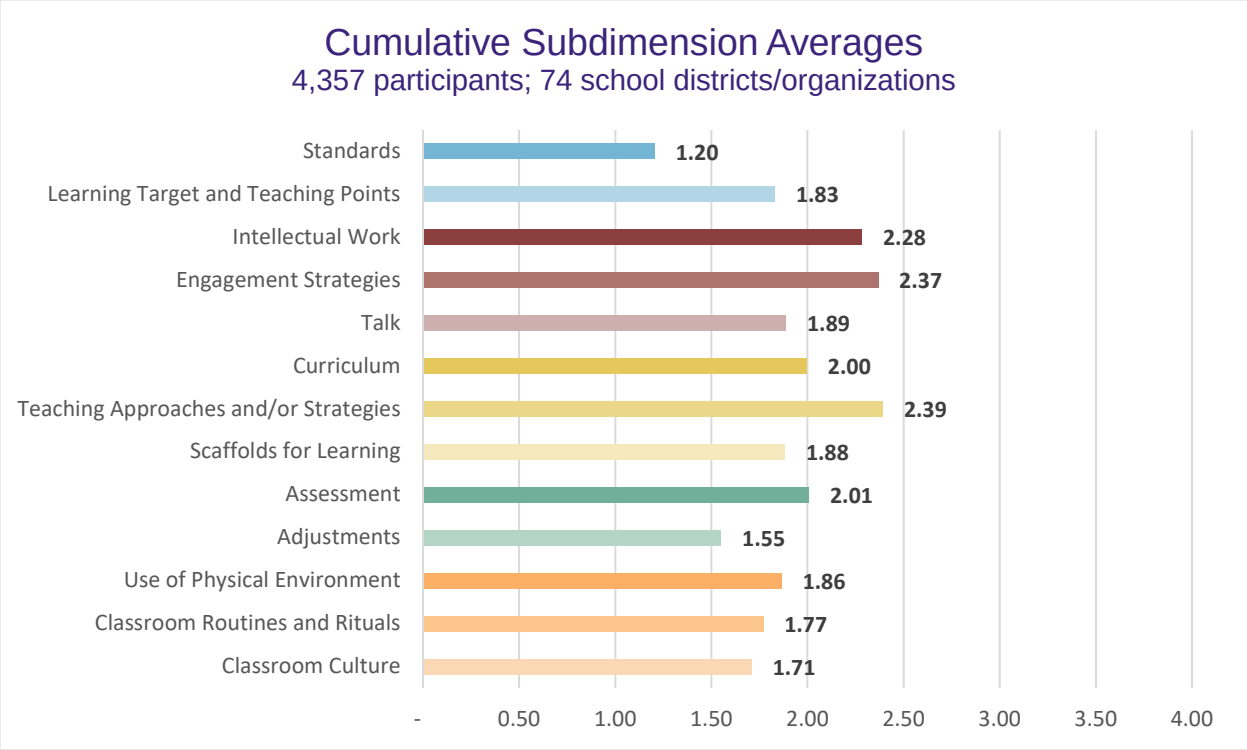
After administering the 5D Assessment to over 4,000 principals and assistant principals, central office leaders, instructional coaches and teachers, we have found that instructional expertise largely falls in the emerging range on the four-point rubric. Figures 3 and 4 are the aggregate results for all participants across the five dimensions and 13 subdimensions.

Figure 3.



1-1.5 = Novice 1.51-2.5 = Emerging 2.51-3.5 = Developing 3.51-4.0 = Expert

Figure 4.



1-1.5 = Novice 1.51-2.5 = Emerging 2.51-3.5 = Developing 3.51-4.0 = Expert

As illustrated, the range on the five dimensions runs from 1.52 on the Purpose dimension to 2.18 on the Student Engagement dimension. The range is even greater across the subdimensions running from a low of 1.20 on Standards to 2.39 on Teaching Approaches and/or Strategies. For a thorough explanation and discussion of the 5 Dimensions of Teaching and Learning framework, please refer to chapters 2 and 3 in *Leading for Instructional Improvement: How Successful Leaders Develop Teaching and Learning Expertise* (Fink and Markholt, 2011).

With a data set of over 4,000 participants, we examined more deeply sub-group performance. Figure 5 shows a comparison of principals by level by averaging their five dimensions scores into one overall score. As you will note, there is some difference between levels, with the elementary and K-8 principals scoring somewhat higher than their middle and high school counterparts, although we have not determined whether this is statistically significant. The number of K-12 and 6-12 principals is too low to draw any meaningful comparisons.

Figure 5.

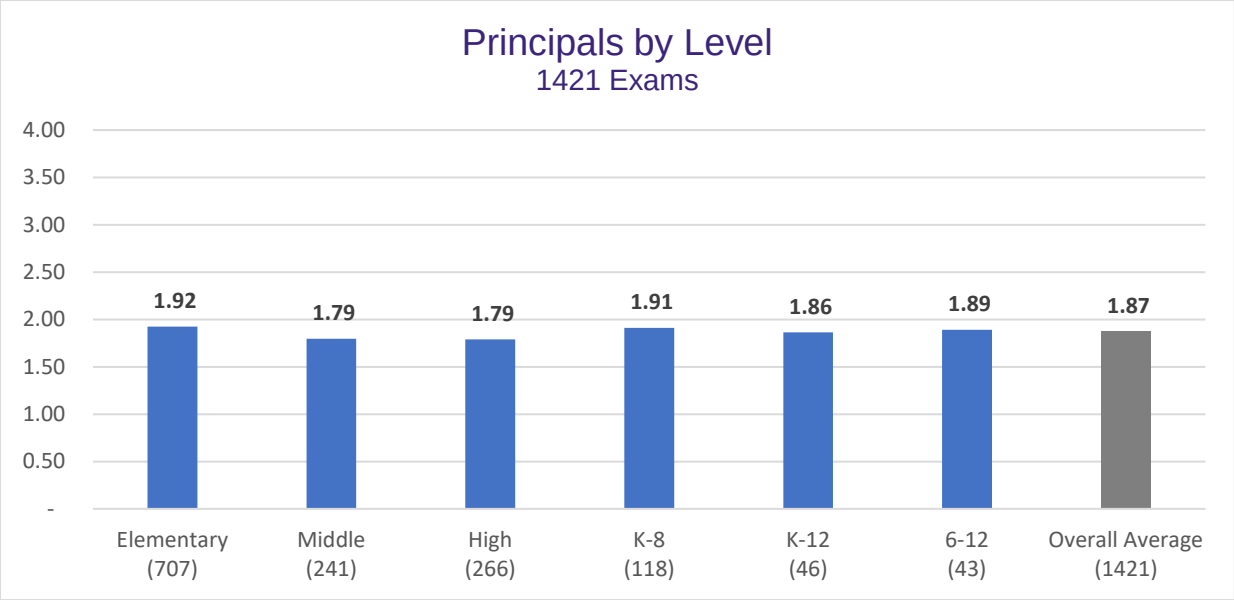


Figure 6 compares principals with central office leaders. It is important to note that the category of central office leaders for this comparison includes participants who identified their job role as superintendent, assistant superintendent, central office administrator, director, or coordinator. And since these titles mean different things in different school districts, it is difficult to draw any meaningful comparison other than that both groups score approximately in the same range..

Figure 6.

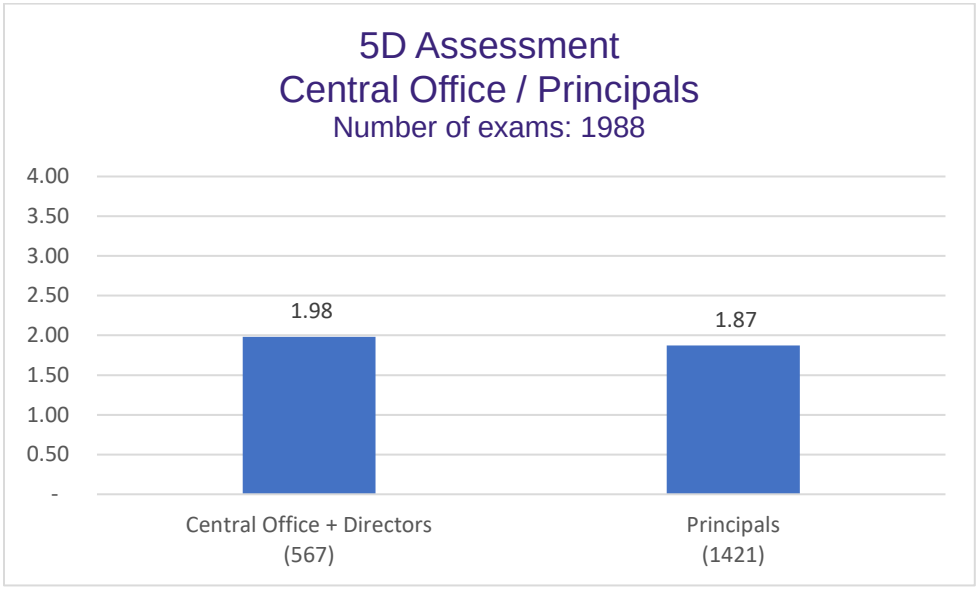
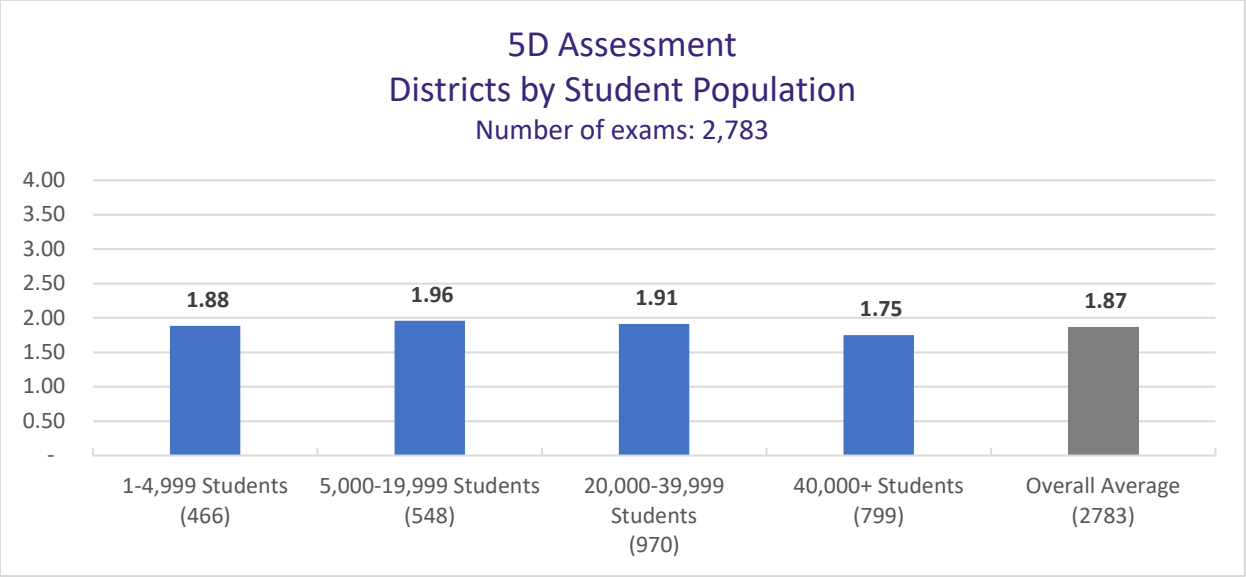


Figure 7 provides a comparison according to district size. At first glance one might assume that school district leaders from districts between 5,000 and 19,999 students routinely score higher than their counterparts from smaller or larger school districts. Actually, we do not have evidence to suggest the phenomenon holds over time. We suspect that the reason we see a higher aggregate score on the part of these leaders in this data set has more do to with the direct support several school districts have received from UWCEL over time rather than something inherent to the size of the school district. We know from a pilot research study (see UWCEL's *Research Brief III*) as well as ongoing analysis that school and district leaders can grow their expertise (as evidenced by their score on the 5D Assessment) with specific and ample professional learning and support.

Figure 7.

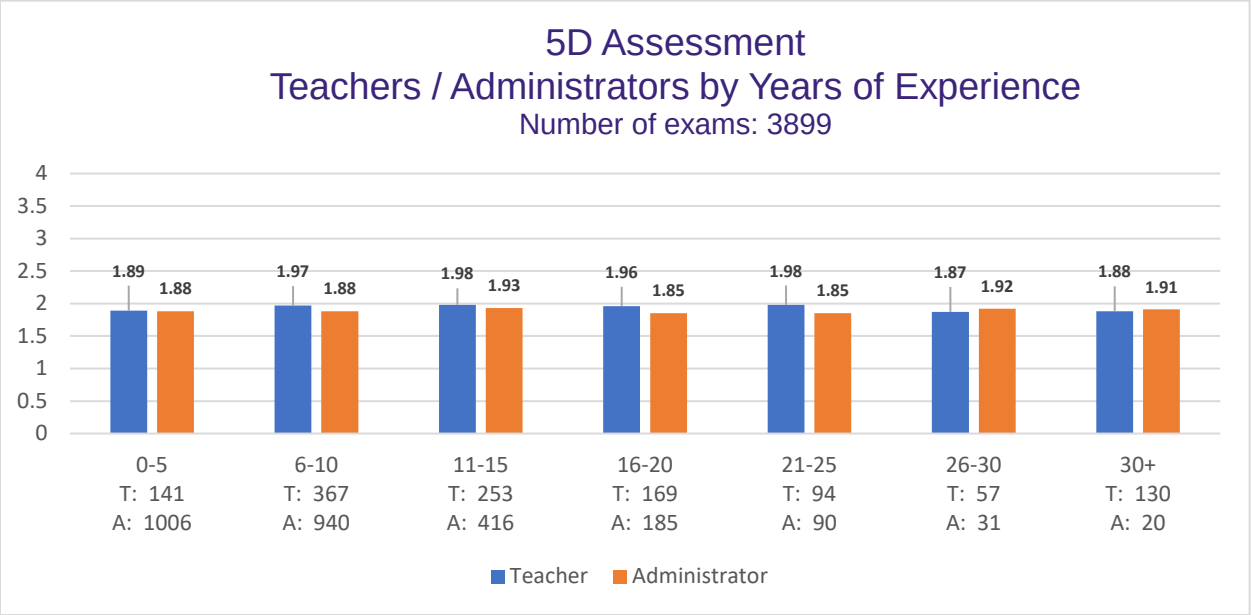


Note. The total number of exams included in the data analysis is 2,783. Of the overall exams, 1,574 were not included in the analysis for this figure because the participants took the assessment as a part of an organization other than a school district.

Figure 8 provides a comparison between teachers and administrators by years of experience. The first finding is that there is little overall difference between teachers and administrators across the levels of experience. The second finding is that years of experience do not matter much in terms of instructional expertise. At first thought, this seems counterintuitive, as we have always assumed that experience is critical to improving our practice. However, while experience

is important, what is more important is the type(s) and quality of experience one has over the course of his/her career. The truth is that in most schools and school districts there is no shared vision for, or understanding of what constitutes high-quality teaching. Given this lack of a shared vision coupled with professional development over time that is often fragmented, episodic and disconnected from daily practice, it is no wonder that one's instructional expertise may remain stagnant over time.

Figure 8.

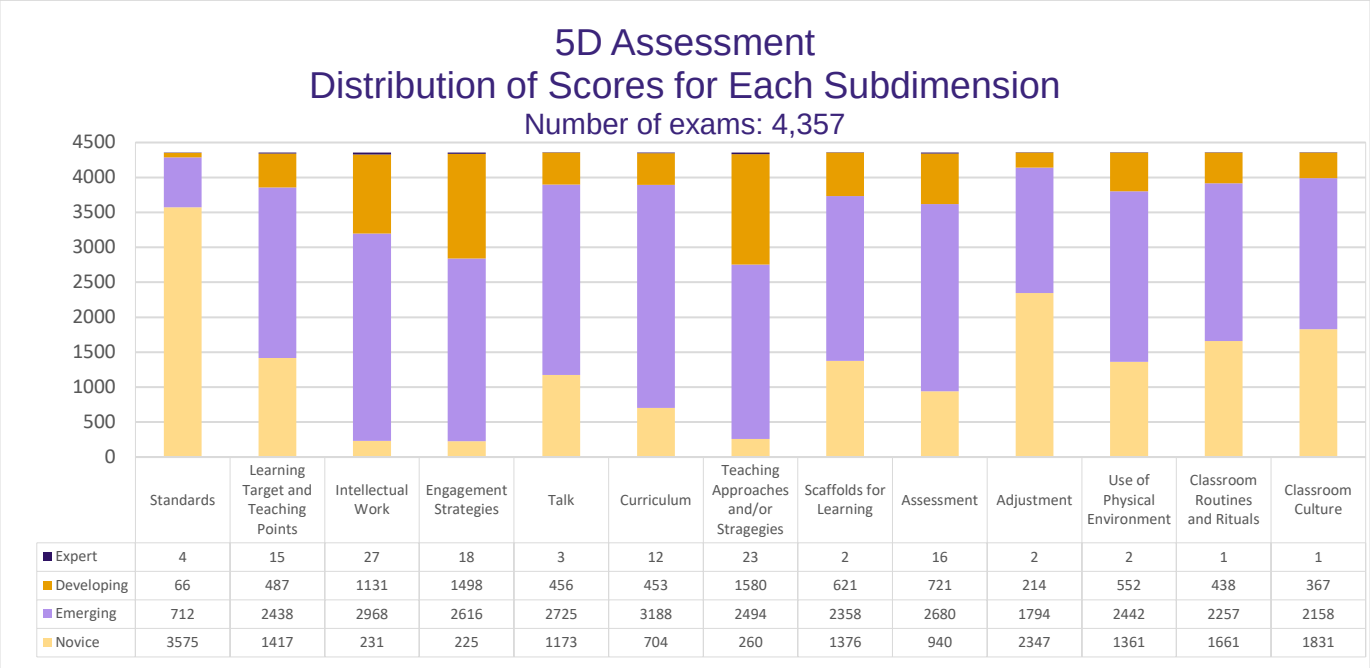


Note. The category Administrators includes administrators working either in the central office or in a school. Participants included in this group identified their job role as being in one of the following categories: superintendent, assistant superintendent, central office administrator, director, principal, assistant principal, vice principal, or "other building administrator."

Figure 9 provides an interesting analysis of performance on specific subdimensions. For example, the dimension of Purpose has two subdimensions (Standards; Learning Target and Teaching Points). The average of the two subdimension scores constitutes one's total score on the Purpose dimension. We consistently find that participants score higher on the Learning Target and Teaching Points subdimension and lower on the Standards subdimension. As one becomes more familiar with the 5D framework and assessment, this difference in scoring actually makes sense. In fact it is consistent with what we find when we are with school and district leaders in classrooms. We find that leaders tend to pay close attention to the learning

target or objective (teaching point) but often do not ask the question of how this particular learning target or teaching point is related to a larger standard that enables students to move along a rigorous and relevant path of learning over time. You can see from this chart that the vast majority of participants score a 1.0 on the Standards subdimension. Conversely, note the scores on the subdimension Engagement Strategies, one of three subdimensions that make up the Engagement dimension. For this subdimension the majority of participants score at a 2.0 or higher. There is much to be learned from the variance in scores on particular subdimensions. This is an issue we are continually studying so that we can more specifically help school and district leaders develop their instructional expertise within each dimension.

Figure 9.



	Standards	Learning Target and Teaching Points	Intellectual Work	Engagement Strategies	Talk	Curriculum	Teaching Approaches and/or Stragegies	Scaffolds for Learning	Assessment	Adjustment	Use of Physical Environment	Classroom Routines and Rituals	Classroom Culture
Expert	4	15	27	18	3	12	23	2	16	2	2	1	1
Developing	66	487	1131	1498	456	453	1580	621	721	214	552	438	367
Emerging	712	2438	2968	2616	2725	3188	2494	2358	2680	1794	2442	2257	2158
Novice	3575	1417	231	225	1173	704	260	1376	940	2347	1361	1661	1831

Next Generation Assessment

In the fall of 2015, researchers from the University of Washington and Vanderbilt University launched a two-year revalidation study of the 5D Assessment funded by the U.S. Department of Education, Institute of Educational Sciences (IES.) While the study is still ongoing, it has already resulted in a total makeover of the assessment. For starters, the new assessment is called the Measures of Instructional Leadership Expertise (MILE™). There are a number of important differences between the MILE and the original 5D Assessment instrument:

- The original 5D Assessment broke down the scoring by dimension and subdimension from the 5D instructional framework. The early phase of the validation study concluded that while the five general dimensions provided strong evidence of instructional expertise, there was insufficient differences in the subdimension scores to yield any conclusive results. As such, the MILE now assesses expertise in observing and analyzing across just the broader five dimensions of teaching and learning.
- One part of the revalidation process was to study and develop a set of prompts that more reliably capture levels of expertise. As such the MILE prompts have been revised accordingly:

  1) What did you notice – and wonder – about teaching and learning in this classroom?
  2) What specific feedback would you give the teacher to help him/her take productive next steps in improving instruction? And why?
  3) What plan for professional development and support would you suggest for this teacher based on what you observed? That is what does the teacher need to learn, and how would you get him/her there?

- While the 5D Assessment prompts also asked three questions about observation, feedback and professional learning, it yielded only a single score, which was really a measure of just observation and analysis. The MILE now measures each question as an independent variable with its own scoring rubrics so that respondents receive three independently validated scores measuring their expertise in *observation and analysis*, *feedback*, and *leading professional learning*.

- The MILE also provides a score for a new crosscutting dimension called *Inquiry Stance,* which measures the extent to which the leader raises questions and notes uncertainties about possible interpretations of visible behavior, events and conditions in the classroom. In addition, it measures the degree to which the leader poses questions to him/herself, and imagines questions to put to the teacher and others to gather more information. This is the important metacognitive work that expert leaders engage in to support teacher growth.
- The MILE has rescaled the four-point rubric so that the intervals between each point on the rubric are essentially equal. This is in contrast to the original 5D Assessment rubric in which it was easier to score a one or two, but much harder to score a three, and even

harder yet to score a four. In addition, the MILE has renamed point four on the rubric to *Nearly a Master* versus Expert, to acknowledge that expertise continues to develop over time.

Figures 10-13 provide the first aggregate scores of the MILE with 462 participants. You will note independent scores for expertise in *observation and analysis*, *feedback*, *professional learning*, along with the crosscutting score in *inquiry stance*.

Figure 10.

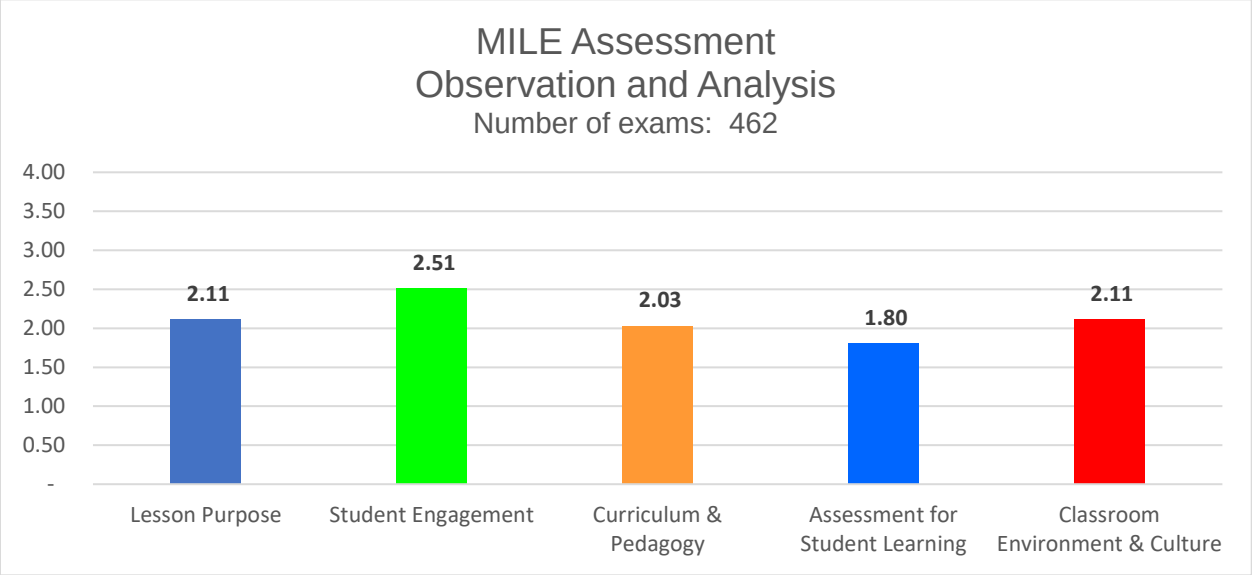


Figure 11.

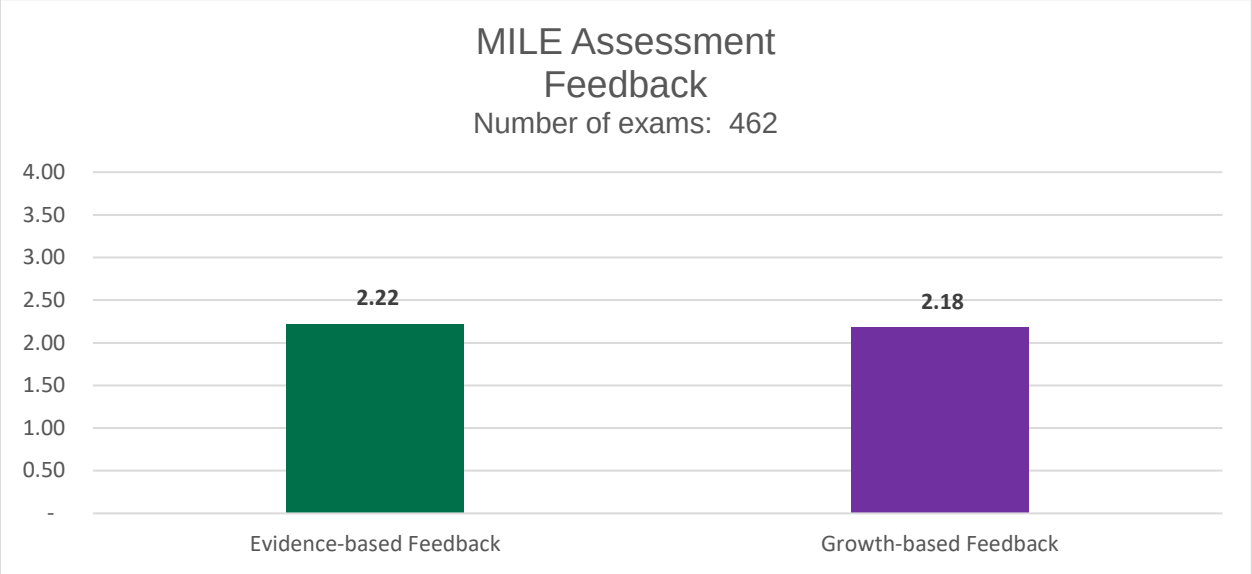


Figure 12.

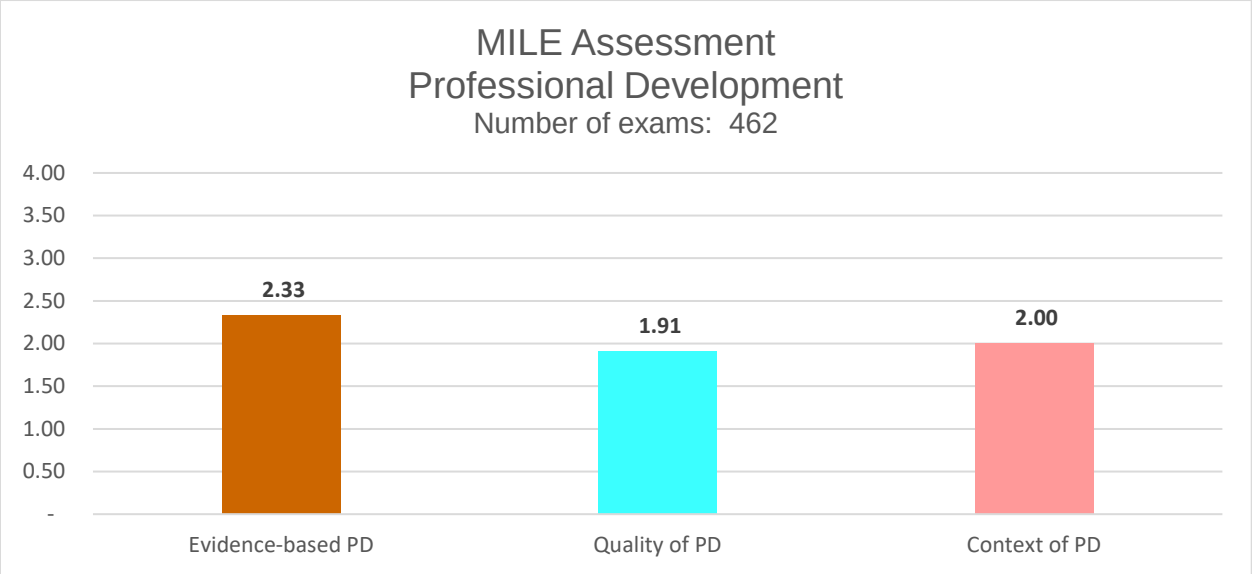
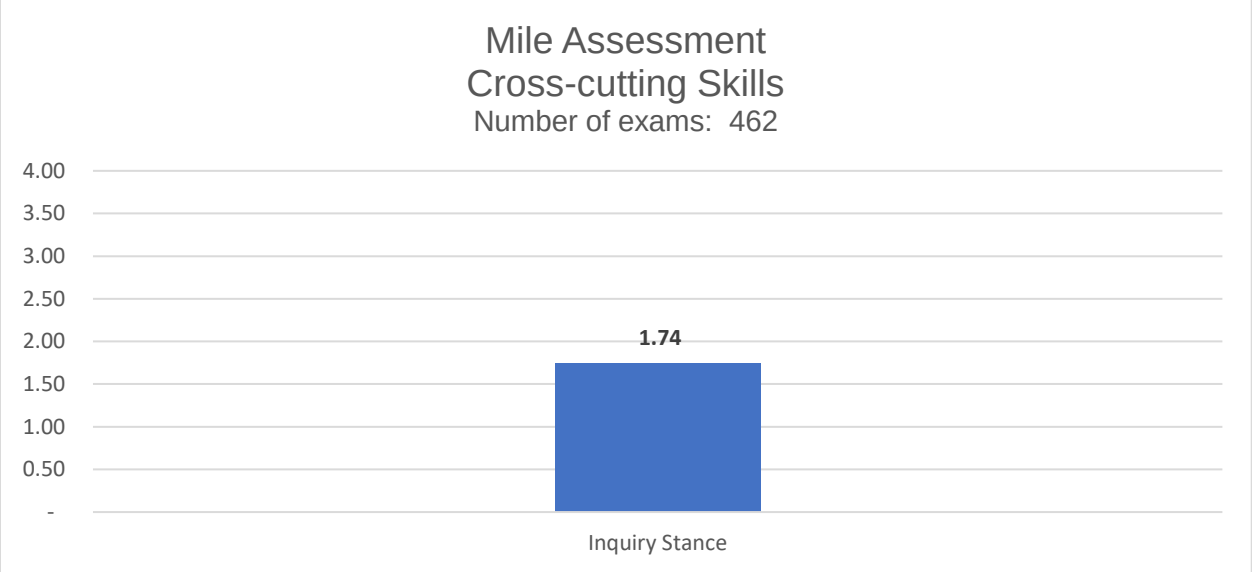
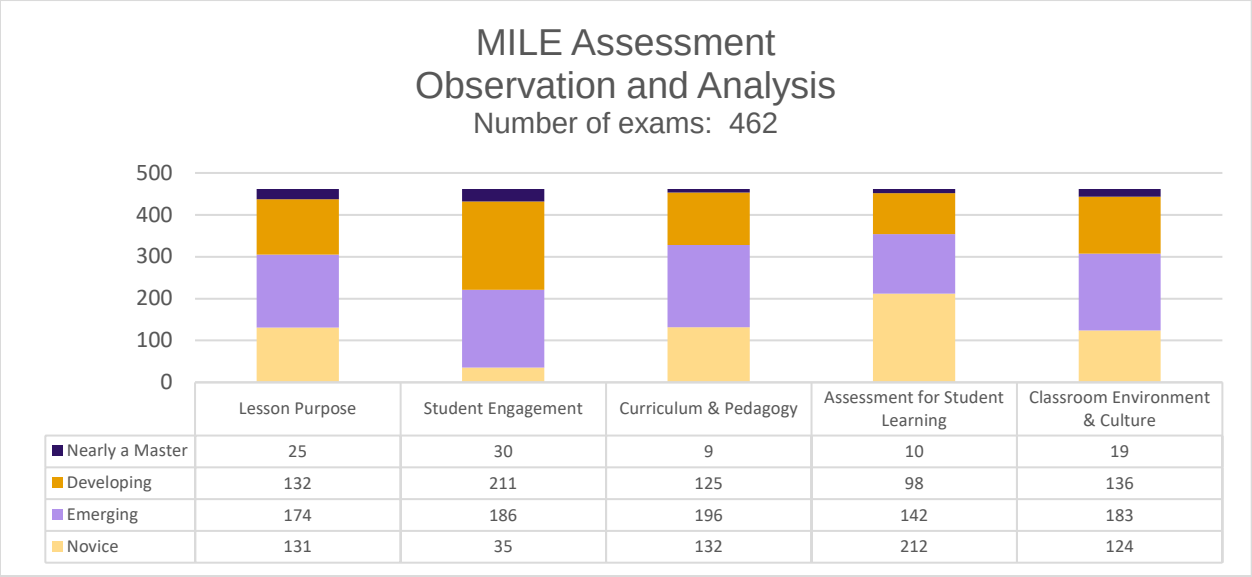


Figure 13.



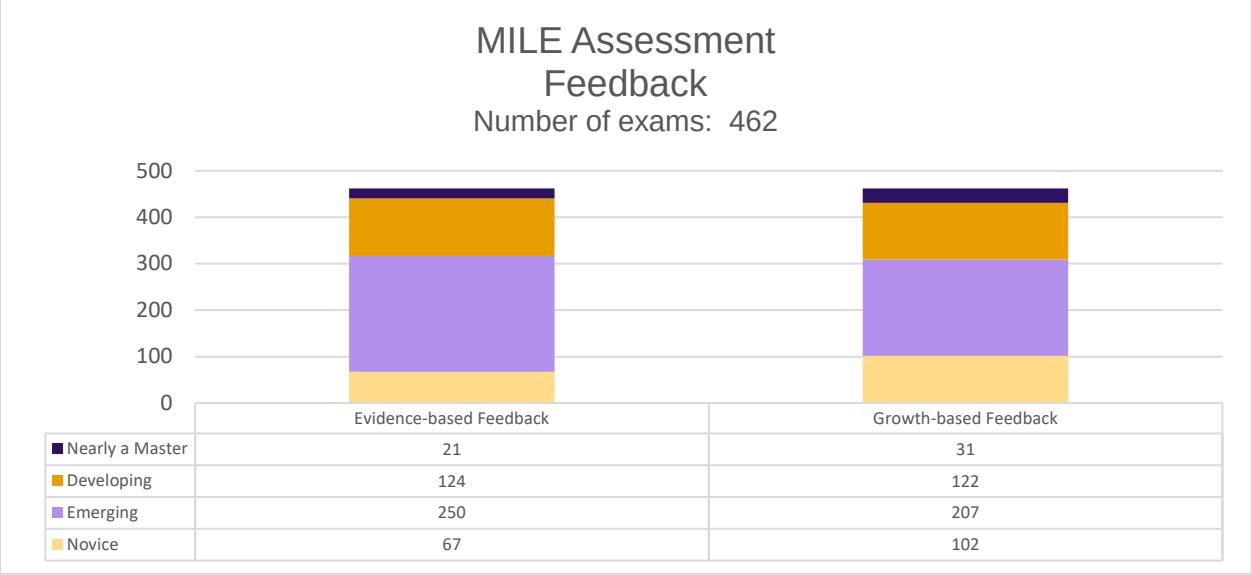
Figures 14-17 provide the score distributions for each of the four measures. You will note the preliminary effects of the rescaled scoring rubrics so that there is now a greater distribution of scores between novice and nearly a master, with somewhat more scoring at the *nearly a master* level than in the original assessment. Based upon our experience leading learning walkthroughs, we think this may be a much closer representation to the actual distribution of expertise among school leaders.

Figure 14.



	Lesson Purpose	Student Engagement	Curriculum & Pedagogy	Assessment for Student Learning	Classroom Environment & Culture
Nearly a Master	25	30	9	10	19
Developing	132	211	125	98	136
Emerging	174	186	196	142	183
Novice	131	35	132	212	124

Figure 15.



	Evidence-based Feedback	Growth-based Feedback
Nearly a Master	21	31
Developing	124	122
Emerging	250	207
Novice	67	102

Figure 16.

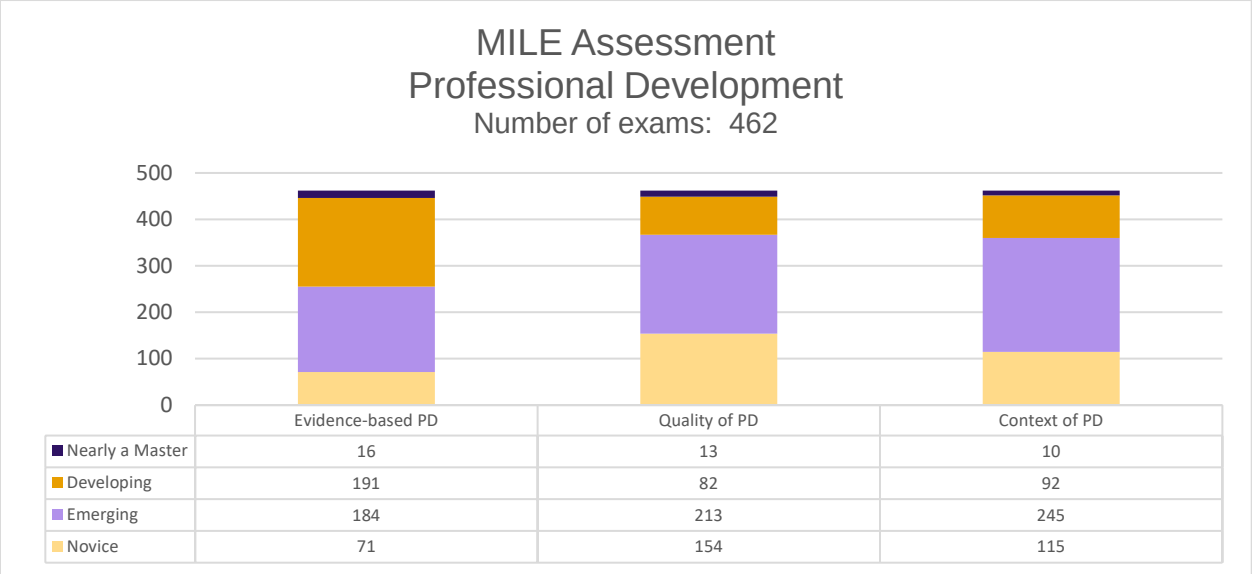
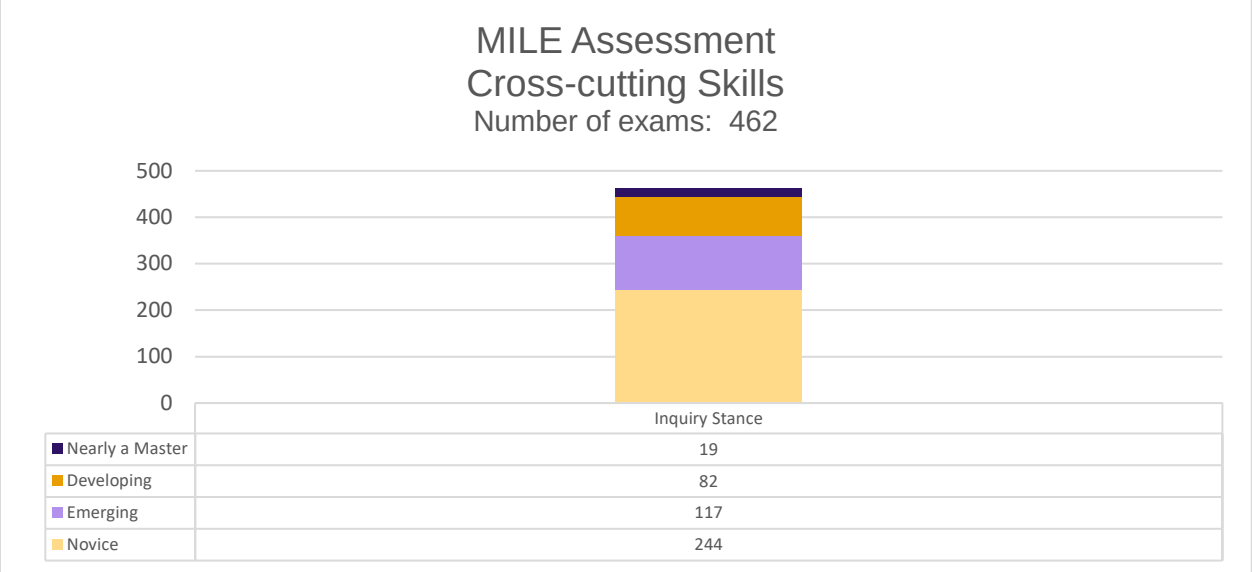


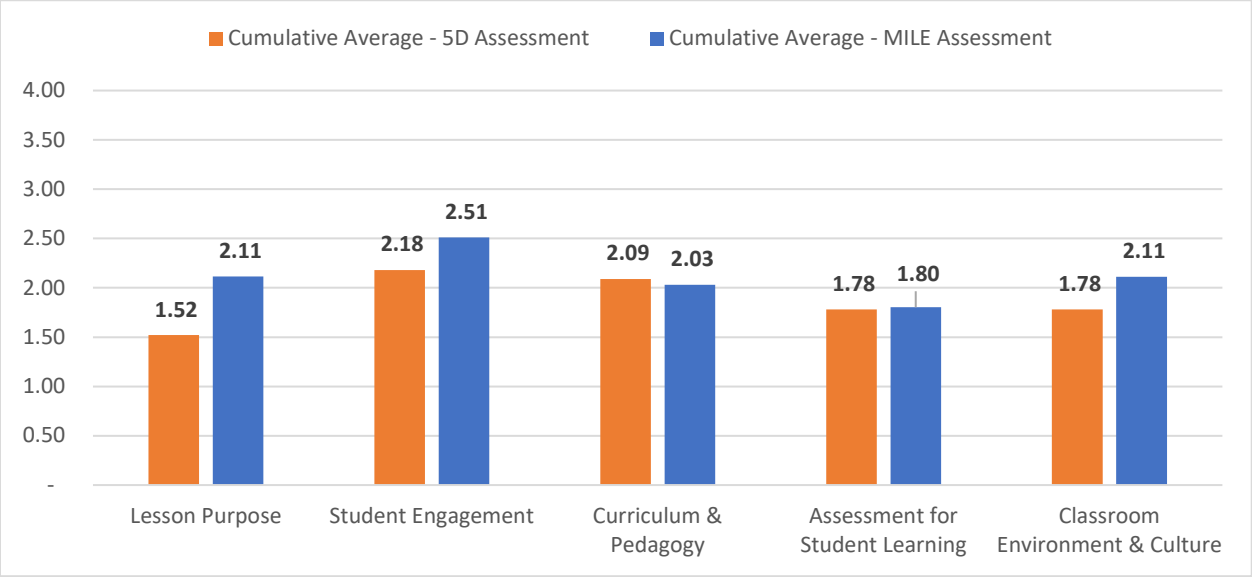
Figure 17.



Finally, Figure 18 provides a comparative aggregate score between those who have taken the original 5D Assessment and the MILE. You will note an increase in the MILE scores in the dimensions of *purpose*, *student engagement* and *classroom environment and culture*. Here

again, we believe this may be due to the rescaling of the scoring rubric although the sample size is still too low to know for sure.

Figure 18.



Conclusion

These 5D Assessment results along with the initial MILE results provide a valuable insight into the level of instructional expertise of school and district leaders. There is still much to study in order to understand not just what our leaders know, but more importantly how to help them grow their own expertise. In the meantime, we believe these data along with our corroborated observations suggest several things:

1. Too few leaders charged with leading the improvement of instruction have developed sufficient expertise to identify high-quality teaching and explicate what makes that teaching “high quality.”

2. With limited instructional expertise, school leaders are more likely to have difficulty identifying and envisioning an improvement trajectory for individual teachers.

3. With limited instructional expertise, school and district leaders are more likely to have difficulty envisioning effective strategic improvement initiatives aimed at deepening the professional learning of all teachers within a system.

4. Instructional expertise can be developed over time. Initial research conducted in UWCEL district partnerships between 2005 and 2007 revealed that school principals and central office leaders can make significant improvement in the course of one year with the appropriate kind of intervention and support. (For more information, please see UWCEL's *Research Brief III*.)

There is much yet to be learned about the instructional expertise of school and district leaders. As more leaders participate in the assessment process, there will be opportunities for further research. Regardless of the research opportunities, we find that school district leaders have used the original 5D Assessment results in three different ways to support their ongoing work. Most school district leaders are interested in the formative aspect of the data to identify more precisely those dimensions and subdimensions that require greater study. A number of school districts have used the 5D Assessment as a pre/post process to gauge their instructional leadership improvement efforts. In addition, several districts have used the assessment as part of their hiring process for prospective principal candidates.

We believe that the MILE will provide much better data for all three of the above purposes. With the IES study still ongoing, we are likely to learn even more about the potential power of this assessment.

Perhaps the most exciting news regardless of whether and why a district might employ the new MILE assessment is that we are seeing more and more school and district leaders working hard to improve their instructional expertise. They understand that the improvement of instruction is, in the end, the most important school leadership challenge of our day.

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