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 2,000 principals, central office leaders, and instructional coaches who have taken our assessment to date, most fall somewhere between “novice” and “emerging” on a four-point rubric. As yet, 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 improve their expertise over time.
Critical questions for instructional leaders

We recognize that successful school leaders demonstrate expertise in many different 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) What do leaders notice and wonder about teaching and learning when they are in classrooms observing instruction?

2) Based upon what they notice and wonder about teaching and learning, what feedback would they provide for the teacher?

3) 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?

We argue that the three questions above 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. And 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 quantify the instructional leadership expertise among school and district leaders, UWCEL faculty first had to understand and 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 many 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 instructional framework which identifies a vision for high-quality teaching in 5 dimensions and 13 sub-dimensions (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 third 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.

<table>
<thead>
<tr>
<th>5 Dimensions and 13 Sub-Dimensions of Teaching and Learning</th>
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<tbody>
<tr>
<td>Purpose</td>
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<tr>
<td>1. Standards</td>
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<td>2. Teaching Point</td>
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<td>Student Engagement</td>
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<td>3. Intellectual Work</td>
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<td>4. Engagement Strategies</td>
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<td>5. Talk</td>
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<tr>
<td>Curriculum &amp; Pedagogy</td>
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<td>6. Curriculum</td>
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<td>7. Teaching Approaches and/or Strategies</td>
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<td>8. Scaffolds for Learning</td>
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<td>Assessment for Student Learning</td>
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<td>9. Assessment</td>
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<td>10. Adjustments</td>
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<tr>
<td>Classroom Environment &amp; Culture</td>
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<td>11. Use of Physical Environment</td>
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<td>12. Classroom Routines and Rituals</td>
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<td>13. Classroom Culture</td>
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With the development of the 5D instructional framework, a four-point rubric was created that differentiates novice from expert practice along each of the 5 dimensions and 13 sub-dimensions. 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 along with current thinking from the research literature. 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.
### Levels of Expertise

<table>
<thead>
<tr>
<th></th>
<th>A novice instructional leader</th>
<th>An emerging instructional leader</th>
<th>A developing instructional leader</th>
<th>An expert instructional leader</th>
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<tbody>
<tr>
<td>1</td>
<td>Does not notice or think about key concepts when observing classroom practice</td>
<td>Recounts what transpired in the lesson</td>
<td>Discusses and/or considers key concepts with enough specificity to demonstrate basic understanding</td>
<td>Demonstrates all the markers of category 3 plus:</td>
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<td></td>
<td>Conveys obvious misconceptions about or misuses key concepts</td>
<td>Identifies, mentions, or names something related to key concepts without any elaboration</td>
<td>Elaborates responses with specific examples/evidence from the observed lesson</td>
<td>Identifies and critically analyzes more layers of complexity in the observed lesson</td>
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<td></td>
<td>Makes gross judgements without any supporting evidence whatsoever</td>
<td>Uses relevant and appropriate terminology without clear evidence of understanding</td>
<td>Expresses wonder or questions about observations (e.g., what is behind teaching decisions)</td>
<td>Conveys clear ideas/vision for powerful and equitable teaching and learning</td>
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<td>May ask questions without elaboration as to why (mimicking questions, perhaps, memorized from previous professional development)</td>
<td>Offers alternatives to teaching decisions or suggests ways to improve with some specificity and/or elaboration</td>
<td>Communicates and supports ideas with richer detail to illustrate evidence/examples from the observed lesson</td>
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<td>May offer directives for improvement without justification or elaboration</td>
<td>Demonstrates basic understanding that teaching decisions impact student learning and how this occurs</td>
<td>Demonstrates pedagogical content knowledge relevant to the specific content area of lesson</td>
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<td>Models an inquiry stance</td>
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<td>Analytically unpacks teaching decisions and offers possible theories</td>
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<td>Links questions and analysis directly to evidence of student learning</td>
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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 on-line 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 onto a secure website, watch a twenty-minute language arts or math lesson (either at the elementary or secondary level), and write in 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 is 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 5 main dimensions and 13 sub-dimensions of the 5D instructional framework. With careful training and ongoing calibration, to date we have been able to maintain a 92 percent inter-rater reliability.

Findings

After administering the 5D assessment to over 2,000 principals, central office leaders, instructional coaches and teachers, we have found that instructional expertise is somewhere between novice and emerging on the four-point rubric. Figures 3 and 4 are the aggregate results for all participants across the 5 dimensions and 13 sub-dimensions.

Figure 3.

Cumulative Dimension Averages
2,343 participants; 44 school districts/organizations

Experts
Developing
Emerging
Novice

Purpose
Student Engagement
Curriculum and Pedagogy
Assessment for Student Learning
Classroom Environment and Culture

1.46
2.06
1.98
1.71
1.71
As illustrated, the range on the 5 dimensions runs from 1.46 on the *Purpose* dimension to 2.06 on the *Student Engagement* dimension. The range is even greater across the sub-dimensions running from a low of 1.14 on *Standards* to 2.24 on *Engagement 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 2,000 participants, we are beginning to examine 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 principals scoring somewhat higher than their middle and high school counterparts. There can be any number of reasons why the elementary principals are scoring higher, however we have not yet conducted the qualitative research to determine what is contributing to this difference in scores. The number of K-12 and 6-12 principals is too low to draw any meaningful comparisons.
Figure 5.

![Figure 5: 5D Assessment Principals by Level](image)

Figure 5 compares principals with central office leaders. It is important to note that the category of central office leaders for this comparison includes superintendents, assistant superintendents, directors and supervisors. 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 the same.

Figure 6.

![Figure 6: 5D Assessment Central Office / Principals](image)
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 to do with the direct support several school districts have received from UWCEL over time rather than something intrinsic 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.**

![5D Assessment Distincts by Size of Student Population](image)

Number of exams: 2,041

Figure 8 provides a comparison between teachers and administrators by years of experience. The first finding is that teachers score slightly higher than administrators at all levels of experience although the difference is not necessarily significant. The second finding is that one’s years of experience don’t 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. Without a shared understanding and language to guide improvement efforts, it’s no wonder that one’s instructional expertise may remain stagnant over time.
Figure 9 provides an interesting analysis of performance on specific sub-dimensions. For example, the dimension of **Purpose** has two sub-dimensions (**Standards** and **Teaching Point**). The average of the two sub-dimension scores constitutes one’s total score on the **Purpose** dimension. We consistently find that participants score higher on the **Teaching Point** sub-dimension and lower on the **Standards** sub-dimension. 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 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** sub-dimension. Conversely, note the scores on the sub-dimension **Engagement Strategies**, one of three sub-dimensions that make up the **Engagement** dimension. For this sub-dimension the majority of participants score at a 2.0 or higher. There is much to be learned from the variance in scores on particular sub-dimensions. 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.
Conclusion

These initial 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. These studies are ongoing among UWCEL faculty, including a study to determine the correlation between instructional expertise and student achievement. 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 specific teachers.

3) With limited instructional expertise, school and district leaders are more likely to have difficulty envisioning broader 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 quantitative and qualitative research. Regardless of the research opportunities we find that school district leaders are using the 5D assessment results in three different ways to support their ongoing work. Most school districts leaders are interested in the formative aspect of the data to identify more precisely those dimensions and sub-dimensions 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. And several districts have used the assessment as part of their hiring process for prospective principal candidates. Perhaps the most exciting news regardless of whether and why a district might employ the 5D 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 leadership challenge of our day.