BRIEF 2: FINDINGS FROM CASE STUDIES OF THE STUDENT LEARNING OBJECTIVES (SLO) IMPLEMENTATION EXPERIENCES AT FOUR SCHOOL SITES

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Key highlights from brief:

- Five common challenges to the SLO process that impacted all school sites:
  1. Uncertainty experienced by teachers about how preparedness levels should be assigned to students
  2. Difficulties experienced by teachers gathering and constructing a body of evidence
  3. A lack of clear guidance in how SLOs will be used for monetary compensation under Denver's Professional Compensation (ProComp) system
  4. Teacher and administrator concerns about the use of SLOs for educator evaluations
  5. The large amount of time spent by teachers working on the SLOs
- Teachers located at the school with the most experience with the SLO process expressed the most opposition to the process.
- Despite the fact that all sites described difficulties with SLOs, the over-arching sentiment was that the SLO process holds promise to inform instruction.

IDENTIFYING SOURCES OF "AMBIGUITY" AND "UNCERTAINTY" EXPERIENCED BY STAKEHOLDERS FOR EVALUATING SLO IMPLEMENTATION

Researchers studying organizational behavior have observed that when new reforms or policies are implemented, stakeholders typically undergo a period of disruptions as they attempt to navigate these policies. These disruptions are largely responsible for fostering perceptions of ambiguity and uncertainty with stakeholders that counteract and impede the implementation work (e.g., Allen & Penuel, 2014; Coburn, 2001; Spillane, Reiser, & Reimer, 2002). For this reason, within a policy context, studies have focused on identifying the sources of ambiguity and uncertainty experienced by stakeholders to address implementation barriers (Coburn, 2001; Penuel & Allen, 2014).

Data collected from case study sites were coded based on themes that appeared indicative of ambiguity or uncertainty about the SLO process. Five of these sources of ambiguity and uncertainty are highlighted in this brief, and they represent sources that were evident for groups representing different levels within a school (i.e., principals, teacher leaders and teachers).

DATA COLLECTION

For each site, the following activities took place to gather information on how SLOs were being implemented and perceived:

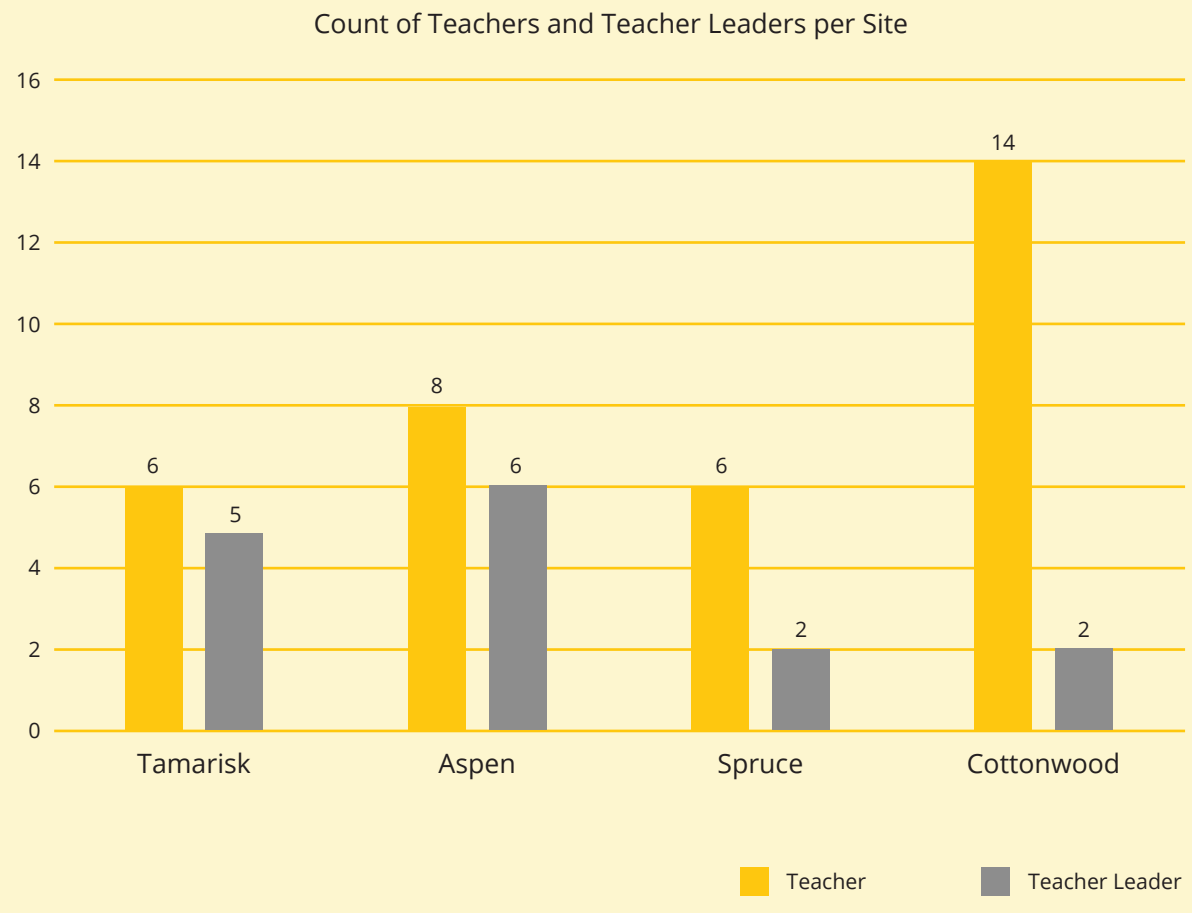
1. One focus group with teachers.
2. One focus group with teacher leaders and/or teachers with differentiated roles.
3. Two interviews with principals (in one school, the Teacher Effectiveness Coach (TEC) was interviewed in lieu of the principal).
4. One interview conducted with a SLO approver.

In addition to the above activities, two to three data teams in different grades and content areas at each school were observed. Observations were scheduled when the data team leaders indicated that the work would focus on either one or several parts of the data inquiry cycle (e.g., student work analysis and discussion of instructional steps). The observations focused on two areas: 1) identifying the extent to which important practices were being enacted as part of the SLO process (e.g., reviewing student work, discussing instructional moves); and, 2) identifying whether these practices were taking place in data teams even if data used for the the SLOs were not being discussed.

Figure 1 presents the total number of participants in focus groups conducted with teachers and teacher leaders.

- At Tamarisk Middle School, all of the middle school teachers and teacher leaders attended the focus groups.
- At Aspen Elementary School, the 14 teachers and teacher leaders participating represented a total of approximately half of all teachers (n = 32) at the school.
- At Spruce Middle School, eight out of 10 grade 6 teachers and teacher leaders (differentiated roles) attended the focus groups.
- At Cottonwood Elementary, all but two of the core classroom teachers (n = 16) in the entire school attended the focus groups.

FIGURE 1: TOTAL NUMBER OF TEACHER AND TEACHER LEADER/DR FOCUS GROUP PARTICIPANTS



At Spruce, the findings from that school need to be interpreted as representing the views from just one grade level (grade 6 only) since teachers and teacher leaders/DRs from the other two grades did not participate in focus groups. Additionally, for Aspen, the findings from that school should be interpreted with caution since only about half of all teachers participated in the focus group. However for Tamarisk and Cottonwood, the focus groups captured the views of the majority of core content teachers at each school.

CASE STUDY SITES OVERVIEW

The case study sites were selected mainly on two factors:

- Sites were located at different points in the growth and achievement quadrant on math displayed under SchoolView.
- Sites were located in different regions of the district and reflected some differences in student populations served.

Ensuring variability of settings served as one way to ascertain whether any contextual differences detected across sites may potentially lead to different outcomes regarding the perceived value of SLOs at each site.

Figure 2 shows the location of each site relative to the median growth percentile and proficiency quadrant made available through the Colorado Department of Education's website for Math in 2013-2014.

FIGURE 2: LOCATION OF SCHOOL SITES RELATIVE TO GROWTH AND ACHIEVEMENT

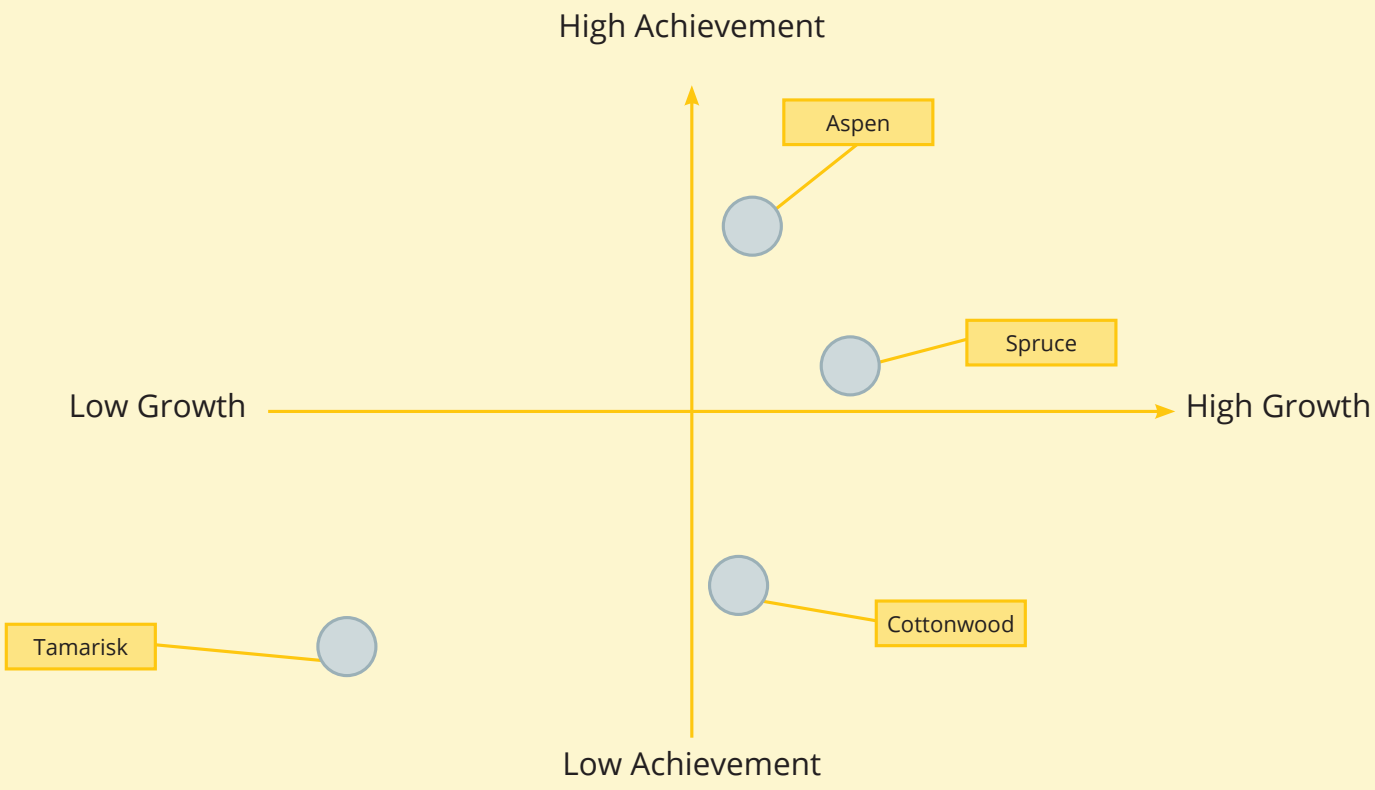


Table 1 shows the percentage of free-and-reduced priced lunch eligible students, percentage of special education students and percentage of English Language Learners at each school. Table 2 presents student performance information achieved on the state assessments in reading and in math during the 2013-2014 school year. The percent proficient and above, and median growth percentiles information are reported for both subjects in Table 2.

TABLE 1. STUDENT DEMOGRAPHICS IN 2015-2016

SCHOOLS	ENGLISH LANGUAGE LEARNERS	FREE AND REDUCED PRICED LUNCH	SPECIAL EDUCATION
Spruce	20%	65%	16%
Tamarisk	25%	76%	13%
Aspen	48%	92%	9%
Cottonwood	62%	95%	9%

TABLE 2. PROFICIENCY AND GROWTH PERFORMANCE FOR MATH AND READING IN 2013-2014

SCHOOLS	MATH PERCENT PROFICIENT AND ABOVE	READING PERCENT PROFICIENT AND ABOVE	MATH MEDIAN GROWTH PERCENTILE	READING MEDIAN GROWTH PERCENTILE
Spruce	51%	58%	64	50
Tamarisk	27%	42%	32	42
Aspen	74%	54%	58	47
Cottonwood	38%	40%	53	49

Additional context about each site follows:

Aspen

Aspen had participated in the earlier district pilot of SLOs and therefore had the most institutional knowledge and capacity out of the four schools to implement the process in 2015-16. As indicated by the first interviews held with Aspen's principal, she strongly believed that despite a few challenges experienced with the SLO process, "we've been involved with the SLOs from the start and my teachers should be used to the process because they're accustomed to using data to inform what they want to do with different types of students and talking about the data…we've spent far more time on SLOs over the past three years than in prior years."

Cottonwood

Although ARE staff indicated that Cottonwood ran strong data teams, the principal noted that Cottonwood was still going through "a lot of growth and change" with their teachers to help them understand the SLO process. According to Cottonwood's principal, "even though the SLO process embodies good instructional practices…we're not at that stage yet where our teachers see this process as an important and integrated part of what they do in their classrooms."

Tamarisk

In 2014-2015, the Instructional Issues Council observed that Tamarisk was still in its early stages of working with teachers in data teams. Council members noted that close to the end of the school year, the principal was still trying to encourage teachers to bring in student work to share with other peers. Additionally, in contrast to the other three sites, Tamarisk stopped the SLO process when the option was provided to schools last January to terminate the process. For this reason, the Tamarisk principal noted that, "we're learning this year what we need to do better next year since this is the first year that all of my teachers have gone through this process from beginning to end."

Spruce

At Spruce, the teacher effectiveness coach (TEC) leading the SLO implementation work noted that after having led her teachers through the process in 2014-2015 she feels, "more confident leading my teachers through the process [in 2015-2016] now that I know what to expect and how to move forward with each part of the process." Unlike the other case study sites, school leaders did not participate in data teams at Spruce. As mentioned in brief 1, the TEC provides training to the Differentiated Roles Teacher Leaders (DRs) to help guide the SLO work with teachers.

FINDINGS CENTERED ON IDENTIFYING SOURCES OF AMBIGUITY AND UNCERTAINTY

As indicated earlier in this brief, five themes related to ambiguous and uncertain understandings of the SLO process consistently appeared across our four sites. These themes point to factors that appear to have disrupted the SLO implementation process at each case study site.

The first four themes represented areas that were addressed by all three groups (teachers, principals and teacher leaders/DRs) in more than one site. The last theme represented an area that was only addressed by one group (all teachers) across more than one site or was also identified by teacher leaders or DRs in more than one case study site.

Table 3 presents examples of how often each theme was referenced during the focus group conversations across sites for just one group (teachers). A plus sign indicates that the theme was discussed once and that teachers expressed consensus about the theme. Two plus signs indicate that the teachers in the focus groups continued to return to the themes several times during the focus group discussion.

TABLE 3: SOURCES OF UNCERTAINTY AND AMBIGUITY FOR TEACHERS

SOURCES OF UNCERTAINTY AND AMBIGUITY ABOUT SLOS	TAMARISK	COTTONWOOD	SPRUCE	ASPEN
Setting preparedness categories	+	+	+	++
Collecting body of evidence	+	++	+	++
Intersection of ProComp and SLOs	+	+	++	++
Process takes too much time	+	++	++	++
Dual-purpose of process	+	-	++	++

As indicated by Table 3, ironically, discussion about the sources for uncertainty and ambiguity for teachers was more prevalent and concentrated in the school (Aspen) that had the most experience with the SLO process. However, these views may also be based upon the fact that the SLO pilot experiences at Aspen differed substantially from the expectations set by the district-wide SLO process. In other words, Aspen teachers who participated in the pilot work in 2013-2014 and 2014-2015 were being asked to use a different approach to the SLO process in 2015-2016.

In contrast to Aspen, for the school with the least exposure to the SLO process (Tamarisk), the principal mentioned in late November that the school as a whole "has not discussed SLOs in data teams since the beginning of the year." The finding that teachers did not continue to return to each theme during the focus groups was not surprising, given that little time had been dedicated to the SLO process.

For each of the five sources causing ambiguity and uncertainty about the SLO process with administrators, teacher leaders and teachers noted below, the perspectives reflect the views of the majority of individuals (i.e. reflect consensus areas or no dissent from the entire group).

1. How to assign preparedness levels to students

An important step that generated high levels of uncertainty and ambiguity with the SLO process across all groups and all sites was the interpretation and placement of students into "preparedness" levels. Key misconceptions about this include:

- Defining preparedness relative to whether students had already mastered the learning objective.
- The prevalent understanding among Early Childhood Education (ECE) and kindergarten teachers at Aspen and Cottonwood that most of their students should be classified as "significantly underprepared."

In regards to the first point, SLO approvers located at the two middle schools and at Aspen observed that teachers placed many of their students in the "underprepared" or "significantly underprepared" categories. In one of the middle schools, the principal at Tamarisk noted that her own misconception about setting preparedness levels was passed down as guidance for all of her teachers. That is, all teachers at Tamarisk were given guidance to classify students that had mastered related standards from the previous grade as "underprepared" if they were judged to be far from mastering the learning objective for the end of the school year. This points to confusion over ratings that were intended to exist on different dimensions: preparedness to learn versus mastery of the learning objective. The distinction between these two dimensions was lost upon most teachers, teacher leaders and one principal at our four sites.

Regarding the second point, both elementary school principals raised concerns that the majority of their ECE and kindergarten teachers were placing their students in the significantly underprepared category. The principals contended that these placements were likely based on a misconception that those students had no prior exposure to the knowledge and skills connected to the objective statement before they started school. Table 4 presents a comparison of the percentages of ECE and kindergarten students in Aspen and Cottonwood in each preparedness category reported relative to the percentages at all other traditional schools.

TABLE 4: COMPARISON OF ECE AND K STUDENTS IN PREPAREDNESS LEVELS REPORTED AT THE OTHER TRADITIONAL SCHOOLS IN THE DISTRICT, COTTONWOOD AND ASPEN

PREPAREDNESS LEVELS	SIGNIFICANTLY UNDERPREPARED	UNDERPREPARED	SOMEWHAT PREPARED	PREPARED	AHEAD
All Traditional Schools	18%	25%	32%	20%	3%
Cottonwood	10%	37%	38%	10%	3%
Aspen	38%	23%	23%	11%	4%

Although the percentage of ECE and K students in Cottonwood located in the significantly underprepared category (10 percent) is lower than the district's percentage (18 percent), the percentage of ECE and K students in Aspen classified as significantly underprepared is notably higher at 38 percent. Further, as seen in Table 5, when comparing Aspen to other traditional schools sharing similar populations, the comparisons indicate that Aspen still classified their students in the lowest category at a higher rate than similar schools.

TABLE 5. COMPARISON OF ASPEN WITH SCHOOLS SHARING SIMILAR ELL AND FRL PERCENTAGES

	FREQUENCY OF ECE AND K CLASSIFICATIONS (PERCENT)		
	ASPEN (%FRL=0.92; %ELL=0.48)	SIMILAR %FRL (0.90-0.95)	SIMILAR %ELL (0.45-0.50)
PREPAREDNESS LEVELS			
Significantly Underprepared [1]	37.9%	32.0%	18.1%
Underprepared [2]	23.2%	29.6%	38.7%
Somewhat Prepared [3]	22.9%	26.3%	33.1%
Prepared [4]	11.5%	10.3%	9.2%
Ahead [5]	4.5%	1.8%	0.9%
Total number of students	314	1,834	703
GROWTH SCORE			
0	1.0%	1.0%	0.9%
1	0.6%	4.3%	6.8%
2	9.2%	14.1%	22.9%
3	89.2%	80.6%	69.4%
Total number of students	314	1,834	703

Note: For the similar percent FRL column, the percentages were drawn from 13 comparison schools. For the similar percent ELL column, the percentages were drawn from 6 comparison schools.

2. Difficulties experienced by teachers in gathering and constructing a body of evidence

In two out of four schools (Aspen and Cottonwood), school administrators discouraged teachers from using the common ANet assessments as part of the evidence for determining students' mastery of a given SLO. One administrator explained that teachers could not use the ANet assessments for their SLOs since ANet had an agreement with the district that their assessments could not be used to inform compensation decisions. As a result, teachers at those schools had to find other sources of data for their body of evidence that went beyond the set of assessments that were discussed extensively during data team meetings. This was a cause of significant dissatisfaction for teachers at the two sites that enacted this policy.

Across the four sites, there were concerns and confusion expressed by both teachers and teacher leaders about what constituted good evidence to evaluate all students on the SLO. Both groups across all sites experienced difficulty in finding assessments that were aligned with the learning objective. The TEC at Spruce noted that even toward the end of the school year, many of her teachers were still seeking her assistance to construct a body of evidence for the SLO.

3. How this process will be used to inform monetary compensation under Denver's Professional Compensation (ProComp) system

Across the four sites and across all three groups, the discussion of ProComp centered on how many SLOs would be used to inform compensation decisions. From the perspective of the two elementary principals and the TEC at Spruce, they expressed concern about the lack of clear policy definition around whether one or two SLOs would be used to inform compensation decisions. As indicated by the TEC from Spruce, "the decision has dragged on for so many months and our teachers are anxious to know what the policy is around tying compensation to SLOs." Additionally, the principals at Aspen and Tamarisk and the TEC at Spruce expressed concerns about how tying student outcomes from SLOs to compensation may serve as a corrupting force. According to the principal at Cottonwood, "As for the one versus two SLOs policy: how do you choose one between two and the fact that DCTA is still in negotiations and sends mixed messages? A lot of money[1] is attached to this and [the policy] might change

1 The ProComp incentive for SLOs was set at $390 for the 2015-2016 school year.

in December or April. If I had a lower SLO score on one SLO, I think I'd naturally choose the higher SLO score and submit that information for compensation. The uncertainty around this policy is a challenge for all teachers."

As for teacher leaders and teachers across sites, all participants indicated great dissatisfaction with the lack of clarity and conflicting messages received from the district and the union about the compensation policy for SLOs. The following statement from a teacher at Aspen reflects similar perspectives expressed by teachers and teacher leaders at the other three sites, "the messaging around one versus two SLOs is muddying the waters for how I think about SLOs as a tool that I can use to watch my students grow."

4. The large amount of time spent by teachers working on the SLOs due to duplicative and data entry requirements

Teachers from Spruce, Cottonwood, and Aspen all expressed frustration about the large amount of time spent on SLOs. Tamarisk teachers noted this as an issue while reflecting on their four month engagement with the process in 2014-2015, but did not reference this as an issue in 2015-2016. When pressed to provide information on why this issue did not seem to impact their experience in 2015-2016, the Tamarisk teachers indicated that since they used the district's template SLOs, they did not have to spend much time developing their own SLOs. However, this sentiment should be tempered by the fact that these teachers also mentioned that they had not spent "much time" on SLOs during the fall semester.

As a factor that contributed to feelings of ambiguity about the process, this issue was framed by teachers and teacher leaders in Aspen and Spruce as contradicting the district's communication about this process as something that teachers "already do." Although this process had been described by district staff as a process that should be embedded in the regular practices of classroom teachers, all teachers across the three sites noted that the process required spending a lot of additional time on "paperwork" (e.g., entering and transferring information, and having to progress monitor students using multiple student information tracking systems).

5. Dual purpose of the process to meet instructional and accountability purposes

Across three sites (Aspen, Spruce, and Tamarisk) and across all three groups within those sites, participants expressed concerns about how this process intersects with educator evaluations. In Cottonwood, the principal and the teacher leaders shared concerns about this issue. Participants voiced concerns that SLOs comprised 45 percent of a teacher's evaluation, despite the fact that teachers were still experiencing uncertainties over implementing the process. The two quotes below from a teacher at Aspen (first quote) and from a teacher at Spruce (second quote) capture similar concerns vocalized by other teachers from Tamarisk:

- "This process puts teachers in a situation that's difficult and uncomfortable because I often wonder if I'm doing things the right way to evaluate student growth but also fear that someone would call into question my integrity when this is used for accountability."
- "Because SLOs are such a large portion of the evaluation pie, I feel that our work becomes more focused on collecting data, rather than on good teaching practices."

According to all teachers and teacher leaders across the three sites, the intention of this process to improve instructional practices and to inform educator evaluations appeared to be working at cross-purposes. That is, the perspective that SLOs were primarily designed in support of accountability purposes made the teachers unwilling to buy-in to them as a tool for instructional improvement.

Figure 3 presents how this issue emerged across two groups within a school's hierarchy relative to this theme (dual purpose of process for accountability and for teacher improvement) for two elementary school sites (Aspen and Cottonwood). In Figure 3, the quotes presented were gathered from focus groups and interviews conducted at each site. Those quotes were selected since they best reflected the general consensus and perspectives of each group relative to the use of the SLO process to meet both accountability and instructional purposes.

FIGURE 3. DUAL PURPOSE OF SLO PROCESS FOR ACCOUNTABILITY AND INSTRUCTION

COTTONWOOD	
Principal	We've really tried hard this year to make this process as authentic as possible, but what I'm seeing now is that a few of my teachers are beginning to see how the points add up in LEAP and they're asking me more questions about the points sheet. If the accountability aspects of SLOS were completely disconnected from student growth, I think we would get better results and buy-in…our teachers would not longer be fearful about failing.
Teachers	For some teachers, they are only thinking about the accountability aspect of SLOs, as opposed to thinking of what value they can get out of the process.
ASPEN	
Teacher Leaders	In our data teams, even though we're saying to teachers that this should be integrated with the work that they're already doing and that we trust their judgment, we're finding that we're spending a lot more time explaining the accountability pieces such as the scoring matrix. Because the SLOs are used for accountability, we're grounding this work in more procedural and compliance aspects of this process instead of focusing on the instructional aspects of this process.
Teachers	This process puts teachers in a situation that's difficult and uncomfortable. I often wonder if I'm doing things the right way to evaluate student growth and also fear that someone would call into question my integrity when this is used for accountability.

MOVING FORWARD

Despite the challenges identified by teachers, teacher leaders and principals, two interesting findings emerged from our case studies.

- First, with the exception of Aspen, teachers across all other sites expressed optimistic views about the future of SLOs in the district, and all four leaders at each site also supported the continued use of SLOs in the district.
- Second, almost all stakeholders across each case study site noted that the district's pre-populated SLO templates provided teachers with useful models that helped them to better understand each component of the process and/or saved them time in carrying out the SLO process.

To elaborate upon the first finding, all teachers participating in focus groups at Spruce, Cottonwood and Tamarisk recognized that each element of the process consisted of practices that teachers should be doing to improve their instruction and student learning. Teachers across the three sites indicated that this process is still in its early stages and that as they become more familiarized with SLOs, this process should in the long-term serve as a meaningful and useful process for informing instruction.

Further, all leaders at each site indicated that this process held great promise for teachers since it embodied good instructional methods and processes. In fact, as indicated by the mid-year LEAP survey results referenced in Brief 3, this sentiment appears to be shared by the majority of principals in the district.

RECOMMENDATIONS

We closed each interview and focus group by asking the same group of stakeholders participating in the focus groups and interviews to provide recommendations for improving the SLO process. Out of all of the recommendations received, we identified five recommendations that could serve as potential solutions for addressing four of the barriers experienced at the case study sites. One of the five barriers is not addressed since there is not a clear or simple solution for resolving concerns with using the SLO process to meet dual purposes. That is, even if SLOs were to be used solely for formative purposes, the SLOs or another indicator of student growth will need to be used to support educator evaluations since this is still required by state law. The recommendations are organized under each corresponding barrier.

Setting preparedness categories

1. Provide requirements and expectations for the SLO process at the beginning of the year so that teachers can determine the preparedness levels early in the school year and can plan out the body of evidence needed to evaluate students over the duration of the course in advance. According to all teachers across all sites, expectations and requirements appeared to be chunked out and communicated in pieces as opposed to helping teachers know about requirements and expectations from the start to the end of the process at the beginning of the year.

   We would add to this recommendation by stating that training should be provided to help clarify understanding of preparedness levels. As indicated by all three groups located across the four sites, teachers struggled to understand the expectations set by the current two-dimensional matrix used to portray preparedness relative to the end of command levels. If all of the levels could be articulated using expectations defined along a one-dimensional continuum of levels, this would likely provide an easier schema for teachers to understand where to locate their students relative to the learning objective at different time points during the year.

Collecting body of evidence

2. Provide an assessment bank that would facilitate construction of assessments that are better aligned to the learning objectives and would provide teachers with readily accessible sources for assessments.

3. Involve students in the SLO process to ensure that they are involved in the process of tracking their own progress and can contribute to the process of building the body of evidence for the SLOs.

Intersection of ProComp and SLOs

4. Improve communication and training from the district such that teachers can access trainings more easily through both in-person and on-line options and that information is continuously streamed to teachers so that the requirements and expectations are made clear on an ongoing basis. This would include articulating clear requirements and expectations about the process for ProComp.

Process takes too much time

5. Improve data management systems so that teachers do not spend limited time during the school day entering data twice (e.g., in data trackers and in the SLO application) or transferring data across different student information systems.

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