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IssueBRIEF

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Using Multiple Child Assessments to Inform Practice in Early Childhood Programs: Lessons from Milpitas Unified School District

The expansion of assessment information available to teachers for planning is one component of the Milpitas Early Learning Transition Model (ELTM), which aims to support children and families as they prepare for elementary school. The ELTM also aims to align teachers' goals and instruction from preschool through 3rd grade by enhancing opportunities for collaboration within and across grades. In this issue brief, we describe key lessons learned about using multiple assessments to improve instruction.[1]

Due to a growing national focus on the importance of school readiness, more states are developing learning standards for their preschools and assessing children's progress toward those standards (Daily et al. 2012). The tools used to conduct these assessments range from teacher-administered checklists and observation rubrics to evaluations that children complete themselves using computer programs or other materials. Research supports the use of such varied tools to fully capture the cognitive and social-emotional development of young children. Indeed, using information from several sources that cover a range of domains is especially important for measuring the progress of children from diverse cultural and linguistic backgrounds (Howard 2011; Bandel et al. 2012).

To learn more about teachers' use of multiple assessments, we examined program practices in a state-funded preschool in Milpitas Unified, a school district in northern California that had recently begun using a second assessment. Overall, we find that teachers may need a range of supports when given the opportunity to integrate a new assessment tool into their practice. Teachers generally value the information that comes from assessment. However, to act effectively on that information, they need opportunities for formal training, ongoing support from supervisors, and the chance to learn through collaboration with their colleagues—both within and across classrooms and grades.

ASSESSMENT IN THE CONTEXT OF THE ELTM PROGRAM

At the time of our study (the 2012–2013 school year), the two primary assessment tools being used in the preschool program were the Desired Results Developmental Profile—Preschool© (2010) (DRDP-PS©, referred to in this brief as the DRDP) and the Children's Progress Academic Assessment (CPAA).[2] The DRDP had been in place for several years, but the CPAA had been recently introduced when our study began.[3]

The DRDP. With the DRDP, teachers use rubrics to rate a child's skill level in seven domains of development, based on the standards of the California Preschool Learning Foundations. Teachers collect evidence and documentation to support their ratings via observations, either one-on-one or in groups, evaluating each child based on his or her behavior within the

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familiar context of the classroom. The teacher's ratings on each of 43 measures reflect aspects of the seven domains of development addressed by the DRDP. Overall, the desired results for children reflect four outcomes: each child (1) is personally and socially competent, (2) is an effective learner, (3) shows physical and motor competence, and (4) is safe and healthy.

The CPAA. Unlike the DRDP, the CPAA is completed independently on a computer by each child, using headphones to follow auditory instructions and a mouse to click through the assessment. The CPAA assesses whether children's skills are in line with learning standards for a particular point in the year (fall, winter, and spring). Versions of the CPAA are available for children in preschool through 3rd grade. The preschool version of the CPAA provides scores for four literacy and three mathematics "concepts" (for example, "listening" and "measurement"). Within each concept, the scope and sequence of skills assessed reflects the expected progression of skill development (children are expected to master some skills before others within a given concept). The assessment is also adaptive; that is, the complexity of the items changes in response to the child's performance on previous items (including whether the child could complete the item correctly with a hint). This means that each child receives a unique set of items reflecting his or her performance.[4]

The CPAA draws on three different item banks for each point in the year. These item banks are not available to teachers for review. However, the CPAA does provide automated reports for the entire classroom and for individual children that include recommended activities; the individual reports describe the types of items children received.

LESSONS LEARNED

Our findings shed light on several aspects of assessment use: administration, interpretation, planning, and the use of assessment data to enhance collaboration. Although teachers appeared to be using assessments regularly, they would likely benefit from additional support in interpreting and combining data from multiple sources. Time constraints limit their ability to develop these skills independently or through collaboration.

- **Most of the teachers saw the value of using assessment data to inform their planning and instruction, but they only had experience using one tool for these purposes.** Teachers are required to summarize their DRDP results in a classroom summary sheet, which they considered helpful for examining their students' overall strengths and needs. This summary sheet identifies the number of children at each developmental level for a given measure and is used to guide instruction and lesson planning. As one teacher explained, "It helped to gather information—to see what needs to be done, improved, [or] changed in order to be a better teacher. It helped me teach more effectively. It narrows things down now because there are a million things [I could] put in my lesson plan."

  A few teachers valued the objective data provided by the CPAA. Challenges associated with the CPAA included teachers' lack of familiarity with the tool and difficulty situating computers so that children were not distracted while completing the assessment (because the computers were in the classrooms, not in a designated computer lab).

- **Few teachers had received formal training on the assessment tools they were using.** Despite having used the DRDP for many years, few of the teachers we interviewed had ever received formal training on the tool. Teachers reported inheriting materials and instructions from other teachers or simply figuring out how to complete the DRDP on their own. They also reported a lack of designated time for paid professional development and limited training opportunities, and most wished they had more time for these activities. One teacher summarized the need for training as follows: "Having formal training is so beneficial. . . . If everyone's winging it, it's useless because no one knows how to do it. . . . You have to be trained before you can be expected to do it properly."

- **Teachers valued the support they received from administrators and wanted more of it.** The administrative staff in our study shared their knowledge of best practices with teachers and helped them to use and interpret assessment data from both tools. Several teachers mentioned that they have occasional one-on-one meetings with a supervisor

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[1] The complete study report is available at http://www.mathematica-mpr.com/publications/PDFs/education/milpitas_ELTM.pdf. This report also includes findings based on one round of qualitative interviews with eight elementary school teachers who had implemented the Children's Progress Academic Assessment.

[2] In California, all state-funded preschool programs are required to use the DRDP. See http://www.cde.ca.gov/sp/se/sr/drdpassmntsystm.asp for more information.

[3] The CPAA is not a state-mandated assessment; the Milpitas ELTM program chose to adopt this tool. More information is available at http://www.childrensprogress.com/.

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[4] Information on the reliability and validity of the CPAA is available at http://www.childrensprogress.com/wp-content/uploads/cpaa-technical-report.pdf.

to review DRDP summary sheets, set goals, and plan lessons around those goals. However, they lack opportunities to learn how to incorporate information from multiple forms of child assessment to make instructional changes.

- **Teachers valued collaboration and were eager to collaborate more often.** Nearly all respondents said they collaborate with colleagues at least monthly. However, teachers mentioned that they have limited time to collaborate with each other outside of monthly meetings. Unlike K–12 teachers, they do not have a common planning time; instead, they share resources and collaborate informally during breaks and on the playground.

- **Teachers may find it difficult to understand and integrate findings from two assessments, particularly when it is not immediately apparent how the assessments align in terms of scoring and skills addressed.** The DRDP and CPAA address many of the same skills; however, the skills that preschoolers learn have many facets, and it is not necessarily clear to teachers whether the CPAA concept scores and DRDP measure ratings capture the same facets of those skills. Furthermore, when using DRDP to rate students, teachers are likely to consider only the skills they have taught the students to date. On the other hand, the scope and sequence of the skills assessed in the CPAA reflect the expected progression of skill development, which may be different from the way teachers sequence their instruction.

- **In comparing DRDP ratings and CPAA scores that likely capture the same constructs (specifically within the domains of literacy and mathematics), we found that children often had a higher rating on one assessment (typically the DRDP) than on the other.** Even though quantitative analyses showed numerical scores did not entirely overlap, most teachers thought the CPAA accurately captured children's skills. In general, teachers believed the results from the DRDP observations aligned with those from the CPAA, but they were likely to trust their own observations over the CPAA should there be any conflict.

- **Some teachers appreciated the objectivity of an assessment that is completed independently by students.** A few teachers felt that the CPAA could perhaps capture information about student progress with less subjectivity than a teacher-completed rating tool. For example, one teacher said that the CPAA does the work of collecting and analyzing the data, so a teacher could potentially discover information about students' strengths and weaknesses that she did not already know. A few teachers were concerned about whether the CPAA accurately captured the skills of ELLs, but another thought it gave ELLs who lacked expressive language skills a chance to show what they can do.[5]

Other challenges reported by teachers pertain to the format of the assessment tools and the teachers' ability to use them. For example, several of the teachers had limited technological capabilities and few chances to develop their computer skills, which may have translated to a slower integration of computerized assessment tools. Some expressed concerns that the CPAA (and other computerized adaptive tests) may be less comprehensive because each administration varies depending on how the child answers the questions. Conversely, many reported that the pencil-and-paper DRDP is onerous and time consuming, as there are 43 pages of measures to complete for each child.

[5] The English version of the CPAA was administered to all children in the ELTM. Some children may not complete the assessment based on the program screening them out during practice exercises (to gauge familiarity with the computer and use of the mouse) or based on item performance or time to respond, with the assessment ending after repeated long delays in answering.

RECOMMENDATIONS

To overcome these challenges and maximize the value of using multiple assessments, teachers need more support in integrating a second assessment tool into their evaluation practices. They also need help understanding how and when the results from the various tools will align. Assisting teachers in these areas will enable them to make full use of the data for individualization and whole-class instruction. Specifically, program directors could:

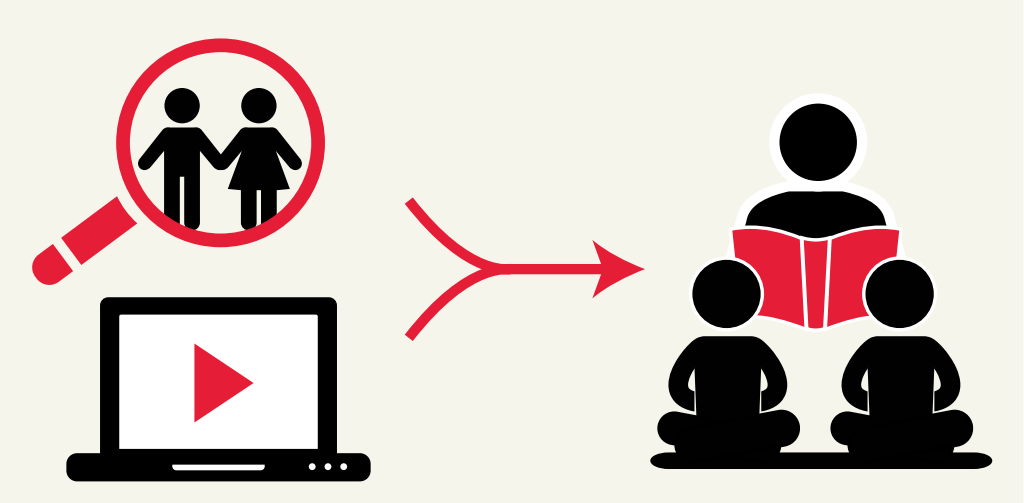
- **Work with teachers to make assessment data meaningful and actionable.** Teachers should develop goals based on the results from all assessments used. To do this, they must understand the conceptual alignment of the assessments and how to use the tools together. Administrators should help teachers see how the assessments complement one another, noting when similar skills are being measured and which strands are uniquely covered by a single assessment. Staff who are especially familiar with the assessment tools could create a crosswalk between the two assessments to illustrate which domains and items overlap and which are unique. The assessment domains and measures could also be mapped to specific learning standards. Besides helping teachers see the connections between the assessments, this would help ensure they cover all necessary content throughout the school year.

- **Offer teachers more training.** Although preschool teachers value the support provided by supervisors, more formal training may help them make better use of the assessments and improve their review and interpretation skills. In addition, teachers need more training on how adaptive tests work. A formal training in which teachers navigate the CPAA (or other computerized adaptive tests) from a child's point of view may improve their perceptions of the value of the technology, the results, and the recommended activities.

- **Provide teachers with more opportunities to collaborate with their colleagues.** Teachers are eager to share ideas, resources, and plans, but lack of time is an issue. They would likely benefit from brief, formal opportunities to meet and collaborate between meetings. They could also develop an online community for sharing ideas and concerns. With guidance from administrators or supervisors, the combination of brief collaborative meetings and online discussions could help staff develop their own professional learning community and increase their comfort with technology.

WORKABLE SOLUTIONS IN PRACTICE

Midway through the school year that followed the completion of the study, the research team met with the director of the child development program to find out what, if anything, had changed in the preschool based on both her experience in implementing the ELTM and



lessons from the study. The director had incorporated more collaboration and training time and reported that teachers were gradually learning how to combine data from the two assessments. The following approaches may help other programs find workable solutions, particularly when faced with time and budget constraints:

Creative scheduling to address time constraints. The director explained that two recent logistical shifts have allowed teachers more time for collaboration. Once a week, a supervisor now relieves lead teachers and assistant teachers during snack time so they can plan together. In addition to this weekly planning, the program has introduced structured time for teachers to collaborate across classrooms once a month outside of regular teacher meetings.

> One study respondent said, "We have to have a tool everyone is using to get the same information. We can't have a quality program unless we have tools to assess the teachers, students, [and] program. We need a universal resource so everyone is on the same page. I think assessment is very valuable."

Support for all teachers. Another important lesson reported by the director and validated by the research was that directors should not make assumptions about what teachers know. When introducing new assessment tools, administrators can help teachers ease into implementation with strong initial training and support. The director described her rationale for a more comprehensive and inclusive training approach: "There are strong [teachers] who will do it by themselves, but there are people who don't have the skill set yet. Leaving them out would mean we don't have the best program we can."

Time set aside for professional development. In response to teachers' strong desire for more training, the program closed for one day to provide a full day of professional development for teachers. The training addressed the development of learning objectives tied to measurable goals as well as ways to use assessment data to enhance collaboration. The director shared a key insight from the training: she noted that the language of collaboration and of data-driven decision making needed to be explicitly taught. These skill sets have their own vernacular, and teachers must be able to speak the language in order to execute the practice.

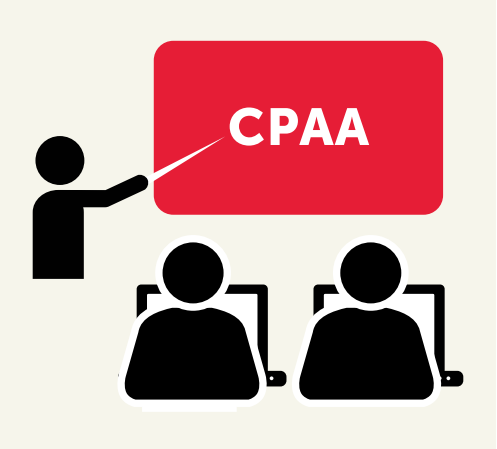
SUMMARY

Although the lessons are based on a study of only one district's preschool program, they may be applicable to other child development programs. Other preschool programs can learn from the experiences of the ELTM teachers and the workable solutions that the program leaders implemented in response to their needs.

STUDY METHODS

We used a mixed-methods approach for this study. For the qualitative component, we conducted two rounds of individual in-person interviews with the seven preschool teachers in the two district preschool sites over the course of one school year; the second round of one-on-one interviews included the teachers and their supervisors. We then organized and analyzed the qualitative data by theme based on a structured coding scheme.

For the quantitative component, we started by comparing the characteristics of the CPAA and DRDP, including how they are administered and the degree to which they address similar skills. We then analyzed DRDP ratings from the fall and spring and CPAA scores from the winter and spring, focusing on the scores and ratings that likely reflected similar skills. To examine the degree to which information about children's skills from the two assessments aligned or differed, we compared DRDP and CPAA scores from around the same time—approximately one month apart.[6] We collected hard copies of the DRDP rating records and received CPAA data electronically. We received assessment data for 134 of the 139 children attending preschool in the district, 30 percent of whom were English-language learners (ELLs). Most children (66 percent) were 4 years old at the start of the school year (August 2012), and the rest were 3 years old.[7]



[6] The fall DRDP was completed in October 2012, and the spring DRDP was completed in March 2013. The winter CPAA was completed in February 2013, and the spring CPAA was completed in May 2013.

[7] Complete assessment data were not available for all children. We received DRDP fall ratings for 105 children and spring ratings for 127 children; 100 children had DRDP data at both time points. We received CPAA winter scores for 95 children and spring scores for 98 children; 87 children had CPAA data at both time points.

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