Synthesis Report 87

Learning Progressions in K-8 Classrooms: How Progress Maps Can Influence Classroom Practice and Perceptions and Help Teachers Make More Informed Instructional Decisions in Support of Struggling Learners

**N A T I O N A L
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O U T C O M E S**

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Learning Progressions in K-8 Classrooms: How Progress Maps Can Influence Classroom Practice and Perceptions and Help Teachers Make More Informed Instructional Decisions in Support of Struggling Learners

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Executive Summary

This report describes perceptions and practices of Hawai'i teachers using progress maps (learning progressions) to inform their understanding of how struggling learners progress during the school year in language arts or mathematics. Participants included (K-8) elementary and middle school teachers from six Hawai'i public schools. Each teacher selected five students in his or her classroom to document progress and collect work samples from at least two quarters during the 2010-2011 school year; several of these students were ones who might have been eligible for and participated in an Alternate Assessment based on Modified Achievement Standards (AA-MAS) if Hawai'i had developed one. Multiple data collection tools and processes were developed for use in this project and are described in the report.

This project was part of the work that Hawai'i engaged in as part of the Multi-State GSEG Toward a Defensible AA-MAS. The project used progress maps initially developed through the Tri-State (Georgia, Hawai'i, and Kentucky) Enhanced Assessment Grant funded by the U.S. Department of Education (Grant #S368A060005).

Data from this project were used to analyze and document how having an underlying learning progression schema might influence teachers' implementation of strategies to support struggling learners, with a specific focus on:

(a) formative assessment practices and lesson planning;

(b) progress monitoring; and

(c) collaborative student work analysis.

Eight findings from the year-long effort addressed (a) teachers' reflections on practice (instruction, assessment, and instructional decisions), (b) teachers' perceptions on learners and learning pathways, (c) facilitated collaboration sessions), and (d) unanticipated activities. This report addresses each of those, as well as the implications of the project for professional development support.

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Introduction

Currently there is little existing research to help educators understand how the lowest perform-ing students at each grade level can best learn increasingly more complex concepts and skills in each content domain. Therefore, there is a critical need for new thinking that explicitly describes the best instructional practices, high-quality resources, and effective professional develop-ment strategies for meeting the goal of teaching academic content to students with a variety of unique learning challenges. While both the No Child Left Behind Act of 2000 (NCLB) and The Individuals with Disabilities Education Improvement Act of 2004 (IDEA) require that all students have access to grade-level general education curriculum, there tends to be a lack of targeted support for special education teachers to acquire deep content knowledge in order to meet that goal. Both deep content knowledge and a repertoire of instructional skills are essential to teachers when one considers the diverse needs of learners. In the past, educators have tended to rely on generic supplemental instructional resources, remediation when students fall behind, or adapting instructional materials on a day-to-day basis to meet the needs of their students. These approaches fall short of having a comprehensive and systemic solution.

Corcoran, Mosher, and Rogat (2009) present a case for addressing this void with the use of learning progressions:

> We are convinced that it is not possible for the reform goals with respect to "all students" to be met unless instruction in our schools becomes much more adaptive. That is, the norms of practice should shift in the direction in which teachers and other educators take responsibility for continually seeking evidence on whether their students are on track to learning what they need to if they are to reach the goals, along with tracking indicators of what problems they may be having, and then for making pedagogical responses to that evidence designed to keep their students on track, or to get them back on track, moving toward meeting the goals. This, of course, is a description of a formative assessment process in action. We are additionally convinced that teachers will not be able to engage in such pro-cesses unless they have in their minds some idea about how students' learning in the subjects they are teaching develops over their time in school, as well as some idea of the ways of responding to evidence of their progress or problems that are likely to be effective. We have been looking for promising ideas about what this metaphor of "on track" (or its obverse—"off track") might mean in terms that could be accessible to and useful for teachers and their students. One such idea that has attracted growing attention in education reform circles is the concept of learning progressions. (p. 8)

The focus of the Hawai`i Progress Maps project was on instructional practices and supports for all at-risk students, including students who would be eligible for an alternate assessment based on modified achievement standards (AA-MAS)—also called the "2% assessment." In this regard, a research study was proposed to examine how collaboration between general education and special education teachers, integrated with the use of Hawai'i Progress Maps (learning progressions) in language arts and mathematics could help to better meet the instructional needs of struggling learners. The student population included, but was not limited to, those students who would be eligible to take an AA-MAS.

In light of emerging literature about the potential of learning progressions to improve teaching and learning for all students in science, mathematics, and language arts (Biggam & Itterly, 2008; Confrey, 2011; Corcoran, Mosher, & Rogat, 2009; Hess, 2008, 2010, 2011; Hill, 2001; Masters & Forster, 1996; NRC, 2001; NRC, 2007; Pinnell & Fountas, 2007; Wilson, 2009), a study was proposed to focus on the implementation and use of Hawai'i Progress Maps developed and refined during the 2007-2008 and 2008-2009 school years. Teachers who were involved during the initial development phase (2007-2008), as well as educators involved in field testing the progress maps (2008-2009) were invited to participate. Inclusion of some educators knowledgeable in the purpose and use of progress maps was important because both general education and special teachers would be recruited for the study, and having some teachers with prior background knowledge of both the academic content of the Hawai`i benchmarks and progress maps and of processes for using them as tools for examining student learning would be very beneficial. Ideally, teams of teachers working in the same schools were to be recruited (e.g., a special education teacher working with a classroom teacher to support the same students at a particular grade level or grade level teams working with the same content across multiple classrooms).

Throughout the study, educators were asked to expand their content knowledge and teaching skills and to document and reflect upon information related to the use of progress maps in language arts or mathematics. This included processes for collegial collaboration in setting expectations for learning and analyzing student work, instructional planning using the learning continuum described in the progress maps, and use of formative assessment strategies and tools to make instructional decisions. Professional development sessions would be planned to provide ongoing guidance to participating teachers in the use of strategies for formative assessment, instruction, collaboration, and data analysis.

Progress Maps and Learning Progressions

Learning progressions, progress maps, developmental continuums, and learning trajectories are all terms that have been used in the literature over the past decade to generally mean research-based, descriptive continuums of how students develop and demonstrate deeper, broader, and

more sophisticated understanding over time. A learning progression can visually and verbally articulate an hypothesis about how learning will typically move toward increased understanding for most students. There is currently a growing body of knowledge surrounding their purposes and use, as well as ongoing research in identifying and empirically validating content-specific learning progressions (Hess, 2010a).

A conceptual view of learning progressions (Hess, 2008) is one of overlapping learning zones along a continuum of learning. At the lower end of the progression are "novice" performers (at any grade level), who may (or may not) demonstrate the necessary prerequisite skills or understanding that is needed to be successful (e.g., essential skills/concepts that can be built upon over time). At the other end of the continuum are "expert" performers. Learning progressions descriptors help to "unpack" how learning might unfold for most students over time, moving from novice to expert performance (see Figure 1 below).

Figure 1. Conceptual View of Learning Progressions
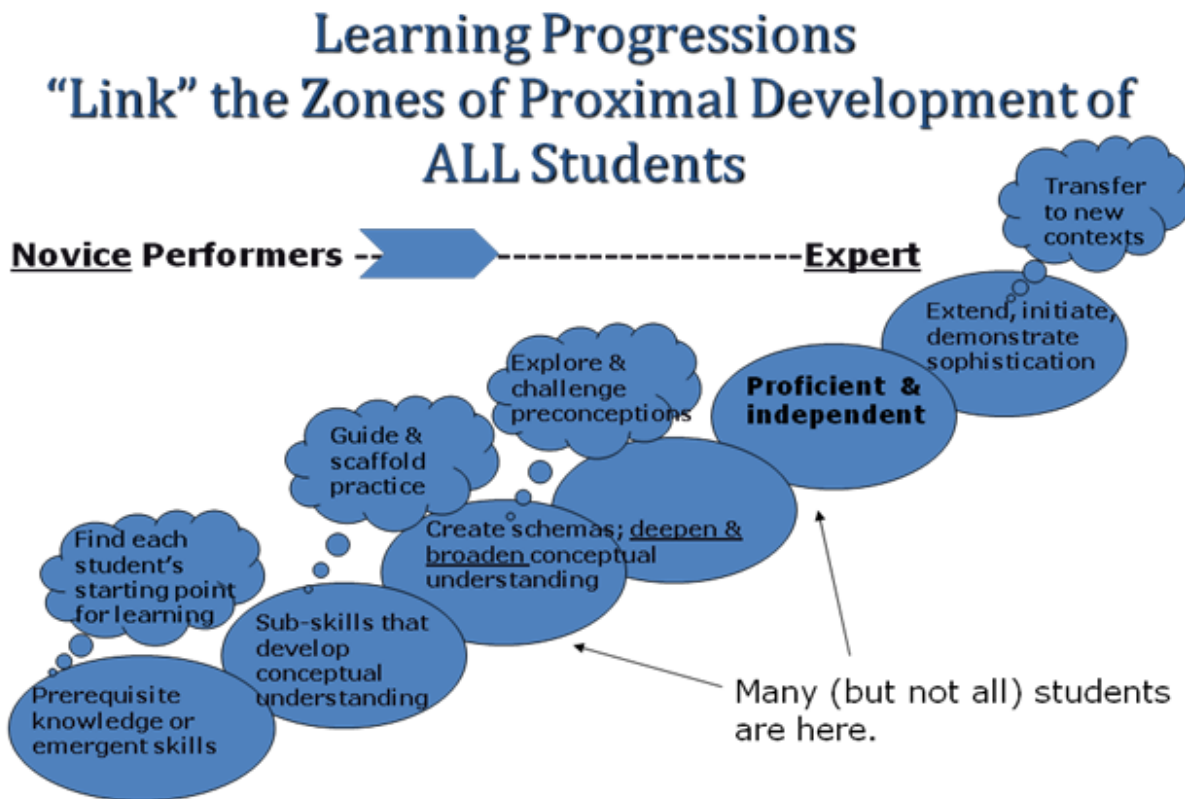
In Figure 1, the Zone of Proximal Development/ZPD (Vygotsky, 1978) is the range of actual to potential learning each person demonstrates at any given time. A conceptual view of learning progressions (Hess, 2008) is one of overlapping learning zones along a continuum of learning.

What distinguishes expert from novice performers is not simply general mental abilities, such as memory or fluid intelligence, or general problem-solving strate-

gies. Experts have acquired extensive stores of knowledge and skill in a particular domain. But perhaps most significant, their minds have organized this knowledge in ways that make it more retrievable and useful. … Most important, they have efficiently coded and organized (chunks of) this information into well-connected schemas … which helps them to notice features and meaningful patterns …that might be overlooked by less competent learners. The schemas enable experts, when confronted with a problem, to retrieve the relevant aspects of their knowledge. … Doing so, effectively moves the burden of thought from limited capacity of working memory to long-term memory. (NRC, 2001, pp. 72–73)

In other words, long-term memory is not about a collection of skills and knowledge, but connections among skills and knowledge built upon over time.

In this report the terms "learning progressions" and "progress maps" are used interchangeably to describe what within-year progress might look like for most students. Given that the project asked teachers to pay close attention to and document how their struggling learners progressed during the school year within the general education curriculum, there was an expectation that the progress of these students might not be "typical" and analyzing teacher observations and a collection of student work might provide insights into the actual progress made.

Staffing for the Progress Maps Project

Strand 1 Activities focused on identifying and tracking the progress of five (5) struggling learners. Teachers documented which tools, processes, and strategies for assessment and instruction seemed to be working effectively for these students. Karin Hess, Senior Associate at the Center for Assessment, Dover, NH, designed the study with the Hawai'i Department of Education and National Center on Educational Outcomes (NCEO) advisors, developed the data collection tools, met with teachers several times to conduct focus groups, interviewed school leaders and teachers, conducted classroom observations, oversaw the ongoing collection of student work samples, and guided the data analysis activities with teachers at the end of the project. Jeri Thompson and Pam Paek, also with the Center for Assessment, supported these project activities.

Strand 2 Activities provided several days of professional development to project teachers, guiding their use of the Hawai'i Content and Performance Standards planning model in using student work analysis protocols and lesson and assessment planning. Valerie Kurizaki coordinated the planning and delivery of these activities with the help of three Hawai'i-based professional development providers: Mary Frances Higuchi, Lisa Leong, and Tricia Tamayose-Okamura.

Hawai'i Department of Education staff were the essential glue who held this complex project together: recruiting and monitoring teacher involvement, organizing meetings and on-site school visits, acting as liaisons with school leaders, facilitating collection of data, and provid-

ing valuable trouble shooting and assistance throughout the school year. Maxine Nagamine, State Educational Specialist, Special Education Services Branch, and Milton Ching, Resource Teacher, Curriculum and Instruction Branch, played an integral role in the success of the project.

Methodology, Questions for Inquiry, and Timelines

What Was the Purpose of the Project?

This project was designed to examine how the use of Hawai'i Progress Maps in language arts and mathematics (K-8) and collaboration among general education and special education teachers can help better meet the instructional needs of struggling learners. The progress maps used in this study were developed specifically to "unpack" how students in Hawai'i would achieve the Hawai'i benchmarks (grade level expectations of the Hawai'i standards). While care is needed in interpreting the project outcomes as representative of all teachers (in Hawai'i or elsewhere), the results of the study have some potential to be generalized to other locations and contexts in terms of how using an underlying learning progressions schema might influence teacher collaboration practices and instructional decisions in support of all learners. In other words, the results of this project could open the door to new research questions in this area, including school-based action research that seeks to better understand how learning develops.

What Questions Did the Project Try to Answer?

The purpose of inquiry within qualitative research is in understanding the world from the point of view of those who live in it. Our general approach to this project was that of constructiv-

ist research, borrowing the term from Guba and Lincoln (1994), who identify their qualitative research work as constructivist. The term references the acknowledgement of the social construction of knowledge. Constructivist researchers are interested in the co-construction of knowledge between researcher and researched, and thus this project approached the analysis and interpretation of data collaboratively with the teacher participants in order to make sense of how learning progressions could influence their day-to-day practice. Self-reporting surveys, interviews, and focus groups were several means used to invite teacher participants to provide their reflections on the effectiveness of the tools and protocols employed.

The learning progressions project began with two broad questions which were later refined in order to develop specific data collection tools and protocols. The initial questions were framed in this way:

- Who are the struggling learners and what is working for them (e.g., targeted instructional strategies, use of formative assessment, extra scaffolding)?

- How can Hawai'i Progress Maps be used to support the struggling learners, including students with disabilities (e.g., periodic formative assessments, strategies used when examining student work, development of pre- and post-assessments)?

Revised Questions for Inquiry (with sub-questions for possible exploration during data collection, interviews, or data analyses—not all questions will be fully discussed in findings).

1. **In what ways are progress maps currently being interpreted and used by Hawai'i teachers, K-8?**

   - Are progress maps seen as a depiction of what could be taught (e.g., domain map), what should be taught (intended curriculum), where the student is on a learning path (e.g., what the student has/has not learned), some combination of these, or something else?

   - What factors (e.g., prior content knowledge, teaching experience, professional development and collaboration opportunities) may influence teachers' understanding and use of progress maps?

   - Are there any unexpected or unintended uses of progress maps being evidenced?

   - Do teacher perceptions (e.g., of content, of students) change over time or with use?

2. **How does the use of progress maps impact understanding of how to teach the content and use assessment tools and assessment evidence in instructional planning?**

   - Are there distinct differences between the content areas in how teachers used progress maps?

- What instructional strategies for assessment were generated during use; which strategies were found to be most useful and which were not as effective? How can acceptable or useful assessment strategies be characterized?

3. **How does the use of progress maps impact teacher expectations and instructional decision making specifically for struggling learners?**

   - To what extent do the participants (members of the same school team) need to have a shared understanding of the content contained in a progress map?

   - Are there differences in use of progress maps for struggling and non-struggling or typically progressing learners?

   - How important is collaboration or professional dialogue to the problem solving process for meeting the needs of struggling learners?

4. **What contextual factors support or hinder the use of progress maps to meet the needs of struggling learners?**

   - What organizational aspects are necessary (e.g., school leader support, structures that allow for professional dialogue, teacher leaders within a school, general education-special education collaboration time, etc.)?

   - Are some teachers more successful than others in using the progress maps? Why?

Who Participated in the Project and What Were They Asked to Do?

Staff of the Hawai'i Department of Education made on-site school visits to recruit general and special education teachers and encouraged teams of teachers from the same schools to participate in the project. Classroom teachers working directly with a special education teacher and teachers with prior involvement or knowledge of the Hawai'i Progress Maps development or field testing were given priority. In the end, prior developers and field testers of the progress maps only made up about 40% of the total participants. Prior knowledge of the progress maps did not seem to hinder teachers' ability to understand and use the progress maps in the project, in part because the initial training session provided extensive background information on their development, purpose, and use.

The resulting teacher teams ranged from as small as two teachers at one grade level in a school, to teams that included all of the teachers (17) in the school's mathematics department for grades 6, 7, and 8. There were four school teams of six or fewer teachers and three school teams of seven or more. Only one school had both a mathematics and language arts team involved in the project. Three special education teachers participated "officially" in the project, while other special educators working in schools with the participating teachers were engaged in many of

the school-based activities in support of students. A few special education teachers even participated in the focus group interviews with project teachers they worked with because of their informal involvement. Forty-eight teachers began the project: thirty mathematics teachers and 18 language arts teachers. Two language arts teachers were unable to finish, but did participate for most of the school year. All teachers received a stipend for their participation in the project.

For the purpose of further explaining the roles and responsibilities of participants, two parallel "strands" describe activities facilitated by either the Center for Assessment staff (strand 1) or the Hawai'i Department of Education staff and consultants (strand 2). Activities for both strands were required and ran simultaneously during the school year. **The focus of this report is primarily on Strand 1**—activities related to teacher practices and perceptions and what they learned from the data collection and analyses for five struggling learners. Strand 2 activities related to employing the six steps of the Hawai'i Content and Performance Standards planning model for general unit and assessment planning, or HCPS III IMPLEMENTATION PROCESS MODEL. (For more information about how this model applied to use of progress maps, go to http://tristateeag.nceo.info/attachments/046_Intended%20Use%20of%20Progress%20Maps. pdf.)

Strand 1 Activities. Teacher participants were asked to identify and then track the progress of five (5) struggling learners in their classrooms, including at least two students with disabilities. Teachers documented which tools, processes, and strategies for assessment and instruction seemed to be working effectively for these students. During the year-long project, facilitators from the Center for Assessment, who designed the study and the data collection tools, met with teachers on-site several times to: (1) introduce the project and explain the use of the various data collection tools, (2) make school visits to conduct focus groups and interview school leaders and teachers, (3) make school visits to conduct classroom observations and oversee the ongoing collection of student work samples, and (4) to guide the data analysis activities with teachers at the end of the project. Ongoing e-mail communication was maintained with all project teachers, school leaders, and Hawai'i Department of Education staff who monitored teacher involvement and provided valuable trouble shooting and assistance throughout the school year.

Strand 2 Activities. In support of the Strand 1 activities, the Hawai'i Department of Education used project funds to hire a coordinator and three on-site professional development providers to work with project teachers, guiding their use of the Hawai'i Content and Performance Standards planning model in three full-day sessions. Strand 2 activities during year 3 and their relation to progress map development during years 1-2 are described in detail in a second paper by Valerie Kurizaki, the project professional development coordinator, *Educating Struggling Learners: Reflections on Lessons Learned about Curriculum, Instruction, and Assessment* (Kurizaki, 2011). A summary of the evaluations for these sessions is included in this report, as they relate to analysis of student work and assessment development.

Project Expectations

1. (Strand 1) Select a content area (reading or mathematics), progress map, and grade level to focus on. Use the tools provided (e.g., learner characteristics descriptors, student profile descriptors, student work analysis form) and available school data (e.g., last year's report card, pre-assessment for unit of study, diagnostic or state assessment) to identify five struggling students in reading or mathematics for the study.

2. (Strand 1) Administer a short (math or reading) pre- and post-attitudinal survey to each of the five students. Several grade appropriate and content specific surveys were provided to participants.

3. (Strand 2) Use the progress map chosen and a collaborative process to develop/use assessments, plan instruction, and examine or discuss student work and student progress. Three full-day meetings were scheduled during the year to facilitate this planning across school teams. Complete pre- and post-evaluations for these sessions.

4. (Strand 1) Collect assessment and instruction data on five selected students for quarters 1 (July-Oct), 2 (Oct-Dec), and 3 (Jan-Mar) only. This information is documented on forms 2 and 3 (Appendices D and E).

5. (Strand 1) Meet with outside research consultant at school either in the second or third quarter. This was an interview or focus group with participating teachers at the school to learn about how progress maps were being used to support struggling learners. Teachers had the chance to ask questions about the data being collected for the five students.

6. (Strands 1 and 2) Complete two required surveys designed to guide reflections and documentation of student progress.

7. (Strand 1) Fourth quarter (April-May) Pull data and work samples for each student together across teachers, grade levels, and schools. Teachers bring their data to this meeting for facilitated group analysis.

Summary of Required Project Meetings

Meetings were held on weekend or nonschool days, except for the school site visit day when classroom observations and focus groups were conducted.

- o **Day 1** (July 2010) Large-group orientation meeting for overview of tools, processes, and data collection. This day included a half day professional development session on designing pre- and post-assessments. Professional resource books were purchased that

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included instructional planning ideas along a learning continuum. Books were distributed to all teachers at this meeting.

ELA teachers received their choice of one of these professional books:

- *Literacy profiles: A framework to guide assessment, instructional strategies and intervention, K-4*
- *Developmental continuums: A framework for literacy instruction and assessment K-8*

Math teachers received their choice of one of these professional books (based on progress map content chosen):

- *First Steps in Mathematics: Chance and Data*
- *First Steps in Mathematics: Space*
- *First Steps in Mathematics: Measurement, Volume 1* or *Volume 2*
- *First Steps in Mathematics: Number, Volume 1* or *Volume 2*

o **Day 2** (August 2010-Strand 2) Professional Development session: large-group facilitated collaboration *general training* for how to use the student work analysis (SWA) forms and protocols to benchmark student work.

o **Day 3** (August/September 2010-Strand 2) Professional Development session: large-group facilitated collaboration using Hawai'i Student Work Analysis (SWA) form and mid assessments given—different days for math and reading. *This session focus was for examining actual student work from formative/mid-assessments*.

o **Day 4** (October/November 2010 or January/February 2011-Strand 1) On-site school visits—scheduled either in quarter 2 or 3. Outside consultants interview each individual, grade level team (e.g., general education and special education teachers), and conduct focus group after school with all teachers at that school. (This structure varied depending on how many teachers were involved at the same school.) Some meetings were conducted after school and others during teacher prep times following a classroom observation. Dates were scheduled based on school schedules and availability of teachers.

o **Day 5** (March 2011-Strand 2) Facilitated collaboration sessions using SWA form and assessments—different days for math and reading. *This day was for examining actual student work from post and final assessments*.

o **Day 6** (April 2011-Strand 1) Large-group data analysis day during April: both content areas met on the same day. Two Center for Assessment staff facilitated content-specific discussions and data analyses. Teachers brought portfolios of work samples collected for five students during the school year and summarized findings across classrooms.

Grade 7 teachers from Kapolei Middle School share data about student progress while examining a student portfolio at the April 2011 meeting. From left to right: Christine Kerr, Lynne True, Joy Nekomoto-Yamada, Roy Imamura, and Julie Lum, math department chair.

Summary of Lessons Learned

Data Collection Tools

Data from multiple sources—interviews, school-based focus groups, and self-reporting surveys—as well as student work samples were collected and analyzed by Center for Assessment staff in order to describe classroom assessment practices, the frequency and nature and use of formative assessment tools and strategies, and use of assessment data to plan instruction.

- All project teachers participated in either an individual interview or focus group, or both. (Focus group and interview questions are included in Appendix C.)

- Data collection for student work samples were organized using the tools in Appendix D (Form 2: Sample ELA Data Collection Tool for Tracking a Single Benchmark), Appendix E (Form 3: Sample Student Profile for Language Arts for Data Collection Tool for Tracking Multiple Benchmarks), and either Appendix F (Form 1: Learner Characteristics for Reading) or Appendix G (Form 1: Learner Characteristics for Mathematics) for reading or mathematics, respectively. More than half of the teachers actually used the student profile (Appendix

E) for all of the students in their classes, not just the five struggling learners identified for the study. This was a testimony to its perceived usefulness and will be discussed further in the section, Unanticipated Activities below.

- Self-reporting formative use surveys were administered at the end of the project (April 2011). Thirteen English language arts (ELA) teachers, 26 mathematics teachers (including one special education teacher), and 3 special education teachers who identified themselves as teaching both ELA and math completed a survey describing their formative assessment practices. (The Burns Formative Assessment Use Scale—for Teachers was adapted for use in this project with permission from R. Burns, 2010.) The formative use survey asks about frequency of using practices such as (1) the use of aligned rubrics and annotated student work to describe expected performance to students, (2) providing written or oral feedback, (3) student self-and peer-assessment practices, (4) modifying assessment based on formative evidence, (5) being intentional when designing formative assessments, and (6) examples of formative tools most frequently used.

- All teachers also completed a pre- (August 2010) and post- (January 2011) survey after attending the facilitated collaboration sessions with Hawai'i-based workshop leaders. The surveys included demographic information and project process questions (e.g., use of strategies for using student work analysis to plan instruction or assessments), as well as questions specific to workshop activities. (These surveys can be found in Appendix H and Appendix I.)

- Professional development facilitators (strand 2 leaders) also completed a survey asking them to reflect on and evaluate the facilitated collaboration sessions.

Data analyses are discussed below under the following topics and draw from various data sources described above:

- Teachers' Reflections on Practice: Instruction, Assessment, and Instructional Decisions
- Teachers' Perceptions: Learners and Learning Pathways
- Facilitated Collaboration Sessions
- Unanticipated Activities
- Structures and Supports: Implications for Professional Development

Teachers' Reflections on Practice: Instruction, Assessment, and Instructional Decisions

Finding #1:

As a result of the project activities—using Progress Maps to plan assessments and instruction and to track progress of individual students—all teachers identified an increased use of many formative strategies and tools. (See summary in Table 1 for selected descriptors.)

Table 1: Frequency and Use of Formative Assessment Strategies

Examples of formative strategies that were used usually or almost always by most participants	Math Teachers (n=25)	ELA Teachers (n=13)	Special Ed Teachers (n=5)
I assess using rubrics aligned explicitly to the Hawai'i benchmarks and grade level standards.	76%	100%	60%
I use planned formative assessments (questioning probes, pretests, open-ended questions) to provide me with information that guides my next steps for instruction.	84%	100%	100%
The written or oral feedback that I give students about their work explicitly addresses how they did or did not meet the Hawai'i benchmarks.	72%	92%	60%
My students have opportunities to assess their own work and get feedback prior to handing it in for a final grade.	60%	53%	60%
My units of study include opportunities for students to engage in and get feedback on the kinds of problems that will be on their tests or exams.	96%	69%	40%
I use homework for purposes other than grading.	92%	85%	80%
I modify my instructional strategies when a student does not do well on a quiz or assessment.	88%	100%	80%
I modify my instructional strategies on the spot while teaching when a student or group of students does not seem to understand.	92%	100%	100%
I schedule class time for students to revise their work and provide ongoing feedback to them during that process.	76%	85%	80%

However, it appears that it was the general education teachers whose practices incorporated the most frequent use of formative strategies linked to grade level benchmarks when using the progress maps. For example, general education teachers tended to link scoring rubrics and feedback explicitly to progress towards the Hawai'i benchmarks and standards, while most special educators did not. And while one might expect a special education teacher to modify instruction on the spot while teaching (as confirmed by the five special education teachers who responded), researchers were surprised to see how many general education teachers also were using formative assessment data to modify instruction in various instructional situations. Also, special educators did not employ peer and student self-assessment strategies as frequently as did their general education colleagues.

Finding #2:

Progress Maps provided a clearer understand of what "within grade level progress" could look like; therefore, teachers were able to use a variety of instructional strategies and tools to monitor that progress. Teachers were asked on the formative uses survey to "describe any additional strategies you frequently use to know how well your students are progressing before giving them a performance-based summative assessment." All teachers were able to identify several effective progress monitoring strategies. That said, there were also some lessons or

assessment materials observed that showed a lack of understanding of how to make learning more accessible to students with disabilities. Since this was true of some general education and special education teachers, we can only surmise that the concept of universal design for learning is a broader issue that cannot be directly addressed using progress maps or formative strategies and should be a topic considered for future professional development across Hawai'i schools, district wide. Universal design for learning refers to a research-based framework for designing instruction that works for all students by using flexible approaches that can be customized and adjusted for individual needs (CAST, 2011).

With regard to supporting English language learners (ELLs)—many of whom were identified as "struggling learners" in Hawai'i classrooms—researchers observed many teachers at all grade levels employing strategies to support these learners (e.g., acting out situations for math problem solving to be sure students understood the context of the problem, building content-specific vocabulary skills for better communication, using visuals and models to support vocabulary development and use). These strategies were seen by teachers as generally beneficial to all students, including students with disabilities.

Below are the most common responses given when asked about progress monitoring strategies employed by project teachers. Surprisingly, the general education teachers used observations and formative warm-ups and exit cards more frequently than did special education teachers to monitor ongoing progress. Special education teachers tended to rely on pre-, mid-, and post-assessments of a larger grain size than did classroom teachers (see Table 2).

Table 2: Additional Strategies Used to Know How Students Are Progressing

General Education ELA Teachers	**Grades K-5:** Teacher observation, small group work, conferencing, warm-ups and exit tasks, pre-assessments **Grades 6-8:** Warm-ups (formative probes) at the start of class, checks for understanding during the lesson, graphic organizers, small group/pairs work
General Education Math Teachers	**Grades 2-5:** Teacher observation, small group work, conferencing, warm-ups and exit tasks, pre-assessments **Grades 6-8:** Warm-ups (formative probes) at the start of class, checks for understanding during the lesson (pair-share, hold up fingers to show degree of understanding 0-2-4, exit cards), conferencing or small group work, pre-assessments
Special Education Teachers	Pre- and mid-assessments, practice summative assessments with extra supports, quick checks for understanding during the lesson (specific strategies not named)

Finding #3:

When asked specifically what, if anything, teachers had changed in their day-to-day practice for developing and using assessments with progress maps, many teachers commented that they had a new lens for developing and using assessment evidence, especially the pre-assessments.

- Many of the teachers noted that they gained a clearer understanding of the state standards and grade level benchmarks. *"I've taught these benchmarks for years, but never really understood them this deeply before using the progress maps to break down the benchmarks."*

- Less experienced teachers spoke about the many benefits of collaboration and use of the progress maps to clarify understanding of the benchmarks: *"It (the project) helped me focus on the benchmarks. I test per benchmark now. Before I would give a test covering three benchmarks and give a grade. Now it helped me focus on (content of) standards and benchmarks more. I'm a new teacher so it was eye opening—the assessments I was giving, the planning, and the assessments I should be giving. I have a poster on the wall so students know and reflect on what they need to do to move up on the map."*

- Knowing the content was essential. Teachers who did not have deep content knowledge, especially special and general educators teaching math, stated that they benefitted greatly from collaboration activities with colleagues and admitted that without deep content knowledge, they could not have developed strong assessments or been as skilled in interpreting assessment results.

- Pre-assessments were used to determine "entry points" onto the progress maps and to differentiate instruction for individuals or small groups. *This was a new insight* and use of pre-assessments that was brought to light while using the progress maps.

- Teachers learned that the most useful pre-assessments were the ones that focused on the foundational (or prerequisite) skills needed to be successful, and not on the "end point" of the continuum (the benchmark). *"At first our pre-assessments were too difficult, included too much, and students could not show what they knew, if anything. Then we figured out that we needed to focus on the prerequisite skills needed to get ready to learn the skills in the benchmarks. That made a huge difference in getting usable assessment evidence."* Again, having deep content knowledge was identified as critical to the process and progress maps supported breaking down benchmarks into teachable chunks. Teachers used assessment evidence from pre-assessments to determine where to begin the instruction—starting with foundational skills or with skills closer to what "approaching proficient" looked like.

- Formative assessment data was found to be a new way to flexibly group students for targeted instruction or support all along the learning continuum, even those students who teachers thought had a solid understanding of the grade-level content. One teacher noted, "*It was a real eye-opener. Some students who I thought were proficient were actually below proficiency according to what they could and could not do on the formative and mid-assessments.*"

- Well designed pre-assessments helped teachers to decide how to best use instructional time: what to teach and what not to teach. "*Pretests allow me to skip over benchmarks students already know from previous years, so I make up time that way. The pre-assessment is good way to find out where they are now and what I need to re-teach.*"

Finding #4:

Another observation made by most teachers was that their assessments now had greater clarity and focus; therefore, assessment data became more useful to them in guiding instruction. Teachers often saw flaws in the commercially available assessments they had been using and chose to redesign many assessments they had used in the past. There was strong agreement that collaboratively developed common assessments seemed to strengthen the resulting assessments and provide better opportunities for analyzing results and sharing instructional strategies across classrooms.

- Teachers noted greater clarity and focus in their collaboratively developed assessments using progress map descriptors and including prerequisite skills. "*When we looked at our first results and the assessment we used, we said, 'what were we thinking?' This is an awful assessment!*"After the first pre-assessment was given and results were analyzed, most teachers revised their thinking about what to include in a pre-assessment, thus improving the quality of assessments used.

- Teachers noted that when there was greater clarity in the assessment tasks, assessment results were more useful in terms of what to do or teach next. "*I never really thought about each individual benchmark, and generally taught and assessed many of them at the same time. So I never knew what the next steps might be when they didn't get it.*"

- Teachers frequently told us that the progress map descriptors and better designed assessments helped them to go deeper into the content with instruction. "*I don't just touch the surface of the benchmark now, but go more in depth.*"

- Assessment prompts and assignments: Many teachers told us that they now rethink the purposes of specific assignments and write them with more detail and specificity about the outcomes they expect from students.

Finding #5:

Above all, teachers told us that having the progress maps gave them greater insight into what to teach next when a student was not making progress and to see all students somewhere on the progress maps. Teachers' perceptions of the slowest progressing students shifted for some (not all) teachers who began to see students according to what the students **could** do, not what they **could not** do. *"I'm not seeing this student as 'behind the other students' like I might have before. I see where he is on the progress map; and now I have an idea of how I can help him."*

- Time and again, teachers stated that they began to understand what a path to proficiency or "approaching proficiency" might actually look like and could now plan lessons to get there. The indicators in the progressions presented the "big picture" of what students could do that teachers could build upon. More than half of the project teachers started to use the progress maps with parents and students to describe progress in concrete terms.

- Teachers found that they had to know the student better in order to "place them" on a learning continuum—because they needed more specific formative assessment data, they started to design assessments with more targeted purposes. "*First quarter pre assessments are more informative, since they tested the skills students needed to know to move ahead.*"

- Many teachers told us that they had been using the grade-level benchmarks for years, but never really understood the benchmarks in a way that laid out a path to get there (meaning how to teach to get there from wherever the student started).

- Teachers told us they had discovered a new way to keep track of progress: *"Now I had a visual organizer of where students were and what I had to do next.*"

- Teachers told us their confidence in interpreting progress for themselves and students was enhanced: "*For seventh grade, it helped us improve our assessments. We made this assessment and compared it with the progress maps. We found that we had to adapt tests and add in questions to properly assess what students know. The result was more rigorous than what we (originally) had planned to assess. It changed the language used in the assessment and how we speak to students. Progress maps allow us to speak to the progress upfront with students, so they know what they need to do for it to be good enough. It's completely taken the guesswork out for us and the kids. They feel more comfortable and confident with what they need to learn.*"

Facilitated Collaboration Sessions

The facilitated collaboration sessions are referenced in a companion report by Valerie Kurizaki (2011), *Educating Struggling Learners: Reflections on Lessons Learned about Curriculum, Instruction, and Assessment*. These sessions were planned and led by four Hawai'i educators as part of the Strand 2 activities. Center for Assessment staff realized early on in the project that having two separate strands might be somewhat confusing to teachers. In strand 1, teachers were using the progress maps and tools provided to track the progress of five students; while in strand 2, they were bringing full classroom sets of student work to analyze. We regret that more effort was not made to better tie the activities of the two strands more closely throughput the project. It was not until the January focus groups and teacher interviews that researchers realized this gap was as significant as it was for many teachers who expressed that it was like being involved in two different projects. Teachers did not always see the connections between the activities in the two strands as clearly as the leaders of strands did. This was easily explained when questions finally surfaced and could have been avoided.

Finding #6:

The use of student work analysis (SWA) protocols, combined with Progress Maps, was a major game changer for making instructional decisions. While teachers told us that in the past they had looked at evidence in student work to give a grade, they had not considered using SWA to target instruction for groups of students, nor were they always sure of what to teach next when students struggled.

- The idea of *"sorting papers"* was a new idea for many teachers: *"I never thought of sorting papers according to what students were able to do or not do. That really changed my thinking about next steps for instruction."*

- SWA processes were sometimes seen as too cumbersome and unmanageable because of the lengthy protocols used early in the project during the facilitated sessions. A more streamlined protocol was designed (Appendix J) late in the project to address this problem voiced by many middle school teachers who teach as many as 150 students.

Finding #7:

Participants noted time and again the benefits of collaborative planning to both design assessment tasks and analyze student work together. Many teachers expressed that after the initial collaborative facilitation session to teach them how to use the process of SWA with colleagues, they would have preferred to simply have quality time with colleagues in a less structured format so they could self-direct the SWA activities.

Unanticipated Activities

Finding #8:

During the school year, many schools, as well as individual teachers, initiated practices related to the use of Progress Maps that were not required, but supported the implementation of Progress Maps more fully and became embedded in day-to-day practice. We believe that many of the teacher-initiated practices have continued beyond the life of the project.

- School Wide Portfolios—One middle school initiated whole-school portfolios guided by the use of progress maps. This resulted in more than half of the project teachers using the student profile (Appendix E) for all of the students in their ELA and math classes, not just for the five struggling learners identified for the study. Student work was collected and used with the progress map descriptors in the profile during parent and student-led conferences during the school year. One elementary school that involved most of their teachers in the ELA part of the project asked if they could use the math student profiles next school year to expand the use of progress maps school-wide to both ELA and math.

- Classroom environments—Classroom and school visits by Center for Assessment staff during the year provided a unique lens into how teachers were using progress maps beyond the requirements of the project. Students were using progress maps for reflection and goal setting before and after testing in one eighth grade math classroom. The teacher told us that this change moved students from setting general learning goals to more specific ones, because students were more clear about a visible path for their own learning and what was being assessed.

- Classroom environments—Another way that teachers used the progress maps to make the learning pathway visible to students was through posting samples of student work along a continuum and promoting student dialogue and peer and student self-assessment as it related to specific "pit stops" along the learning pathway. Teachers in these fifth grade classrooms used formative assessment checklists (based on the progress map descriptors they were focusing on) to monitor small group dialogue during problem solving activities. They were then able to immediately adjust instruction based on informal notes taken. Below is a photo of one teacher's bulletin board, taken during an on-site visit. It displays the progress map descriptors along the learning continuum with samples of what student work looks like along the learning pathway. Students move their markers (sticky notes) along the path when they achieve the next level and *all* students support each other in getting there. The class goal is for everyone to achieve at the highest levels.

Fifth grade teachers at Mililani Uka Elementary School, Evelyn Ibonia, and Margeaux Ikuma, display descriptors of the levels of the progress maps they are working on and then post student work samples so students can see how the work becomes more sophisticated over time. Students work together to get everyone to the "high end" of the progression by the end of the unit. The sticky notes represent students in the class and are moved from "just starting" to match the progress map descriptors as they make progress to "got it."

Structures and Supports: Implications for Professional Development

There are several simple but important takeaways from this project. While they may seem obvious, we list them to be sure that future efforts to implement a learning progressions schema in classroom practice does not overlook what may be essential to its success.

• Everyone needs time and support structures for collaboration, collaboration, collaboration.

• Teachers need a SWA process that is manageable and practical to use.

- Special education teachers must become fully integrated as a member of the planning and instructional teams.

- Everyone needs to know the content to really make a difference in support of struggling learners.

- Clarity saves time: strong instructional and assessment models, common language, and shared expectations will benefit all teachers and all students in the long run.

- Build school wide consensus for recognizing high quality in assessments, expectations for students (and evidence of real learning), and *proven* instructional approaches to get there.

- Last, but perhaps most important, work to build "leadership density" within each school (Hess, 2000). School administrators can provide collaboration time, support structures, and the resources needed to support full implementation of learning progressions; however, it is the master teachers who will lead the school in these efforts, if enough of them come to deeply understand purposes and uses of progress maps. This is called leadership density—many leaders within a school who can inspire and mentor colleagues along the way.

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Appendix A

Sample Classroom Observation Summary Form - MATH

Teacher: grade: School:	skills	concepts	P Solve X
Lesson content/objective/focus (very brief sentence/include benchmark only if you know it – not required!) *For example:* This lesson focused on comparing data in tables to graphs representing that data. **Strategies observed** *Describe any specific things the teacher did that would be supportive of any struggling learner – you do not have to make a direct link to their 5 kids* **Other comments/ideas/suggestions**: *You might include a positive comment, such as how the teacher encourages use of math language and math dialogue among students. You might include a suggestion – students could benefit from use of manipulatives to demonstrate ...*	*Are there specific examples? Was the lesson focus mostly on one area? All 3?* The lesson included: Skills/procedures Concepts Problem solving *For example*: **pairs of students were given a "story" and asked to describe what the graph should look like**		

Appendix B

Sample Classroom Observation Summary Form - ELA

Teacher: grade: School:	Literal X	Interpret X	Analyze X
Lesson content/objective/focus (very brief sentence/include benchmark only if you know it – not required!) *For example:* This lesson focused on retelling a story heard read aloud, <u>The Very Hungry Caterpillar</u>. **Strategies observed** **Other comments/ideas/suggestions**: *For example:* Teacher connected the lesson (book selection) to finding a butterfly chrysalis the day before. Since students know the term "chrysalis" teacher could introduce the term, "chrysalides" which is the plural form of chrysalis.	*Are there specific examples? Was the lesson focus mostly on one area? All 3?* Literal – Interpreting – Analyzing – students worked in trios to arrange story events in proper sequence		

Appendix C

Sample Questions for Teacher Interviews & Focus Groups

Thanks for letting me visit your classroom today. First I have a couple of questions about today's lesson. Can you relate anything that I saw today to the work we've been doing in the project? – for example…

1. Did the lessons I saw today focus on one of your "selected" benchmarks? If yes, where are you in the process of documenting learning? (e.g., just started, near the end)
2. How does the <u>content of the lesson</u> today build on what students have already learned?
3. What is your sense of what the students know and understand at this point about the topic/content/benchmark? What examples of work/<u>evidence</u> tells you this?
4. Given what your students did today, what are the <u>next steps</u> you will take? Or: How will you build on what they learned today? Where will you go from here? What helps you to decide next steps?
5. Did you do anything specific today to support one of your struggling learners during the lesson (e.g acted out the problem with props for an ESL student)?

Sample Questions for Focus Groups

(1) In general, how have things been going so far? Has anything about the research project surprised you that you did not expect to see/do? (e.g., changed benchmarks, started later)

#1
#2
#3
#4

Recording forms were set up to capture comments from multiple responders during focus groups

(2) Did you have any problems identifying your 5 students? What typically did you do to identify them? What data were most useful in identifying your students?

Did you remember to complete the table you got in July and check off what data you used for all 5 students? (Someone from the department of education will collect that table from you in March)
Did you administer the reading or math attitude survey? yes___ no ___ Any comments about that?

(3) Do you have questions or need help with completing the data forms (1, 2, and 3) or selecting evidence of progress? (This question is <u>not</u> about the SWA forms)

Form #1 (learner characteristics with instruction that worked - Appendix F and Appendix G)

If you were going to describe any of your struggling students to a teacher who was going to take over your class, would the descriptors in Form #1 be helpful?__ accurate? ___
Do you have suggestions about revising any descriptors?
How many times have you completed this form for each student so far? 1____ 2____ 3____ (You can wait until late March to complete the last one.)
So far, have you identified any tools, processes, and/or strategies for assessment and instruction that are working really effectively for any of these 5 students? (We will have time at the April meeting to discu this and for you to add ideas then.)

Form #2 (detailed notes on 3 selected benchmarks - Appendix D)

> Have you had difficulties making these notes on specific benchmarks? What help would you like? Have you needed to use different descriptors than what is in the progress maps? Be sure to note your suggestions.

Form #3 (general notes/all benchmarks /shows general progress of individual students - Appendix E)

Can I see some of the data/student work you have collected so far? Walk me through one of your portfolios and show me how you have been collecting and documenting information.
- (4) How do you decide which work to select/include among all of the work students do?

Have you been meeting with colleagues in your school to discuss the use of the progress maps or to discuss & analyze student work?
- (5) When/how often?
- (6) Who do you meet/talk with (general ed/SPED)?
- (7) What typically do you do when you meet – develop assessments, learn how to use the maps, develop lessons, etc.)
- (8) Have you seen any benefits OR drawbacks of collaborating with colleagues?
- (9) What kind of support are you getting from your coaches/ administrator? What more do you need/would you like to have?

How are you specifically using progress maps for the 5 (or more) struggling learners in your class? Has anything made a difference?
> What is working well?
> What isn't working as well as you'd like it to?
> Do you see yourself using the progress maps as a regular part of your instruction with students?
> WHAT if anything has anything changed with your practices as a result? (instructional tasks, assessment use, knowing how to better meet needs of students)

> Is there anything else you'd like to share?

Appendix D

Form 2: Sample ELA Data Collection Tool for Tracking Progress and Instructional Strategies for a Single Benchmark.

Used to document specific strategies used and analyze student work samples.

Distinguish fact from opinion and cause from effect when reading informational texts

Progress Map Descriptors Concept: **Constructing Meaning**	Below lowest descriptor (please describe what student <u>was</u> able to do)	Foundational Distinguish fact from opinions based on personal experiences (e.g., Fact: I have black hair. Opinion: I look better as a red head.). Predict effects for experience-based causal factors (i.e. if you study hard, you might get good grades.).	Define the terms, fact, opinion, cause and effect.	**Approaching Proficient** Identify cue/signal words for cause/effect pattern (since, because, if/then, etc.) and facts/opinion (I believe, etc.).	**Proficient** Tell which key points are facts and which are opinions; and identify causes and effects.
Student work is "closest" to which entry level descriptor? (include date)	Date	○　Met ○　Not quite	○　Met ○　Not quite	○　Met ○　Not quite	○　Met ○　Not quite
Comments about the Evidence (observed or in the student work): *strategies-skills-concepts*					
Comments related to the assessment used					
Comments related to next steps for instruction or support					

Appendix E

Form 3: Sample Student Profile for Language Arts (Data Collection Tool for Tracking Multiple Benchmarks)

Sample Student Profile for ELA - Grade 5

Year	Grade	Classroom Teacher	Support Service Provider(s) – is the student receiving other services	Case Manager/Special Educator
2009-10	5	Karin Hess	SLP services	-

The Student Profile provides a guide for instructional and assessment planning, progress monitoring, and documentation of essential learning of ELA skills and concepts based on Hawai'i's grade-level benchmarks and related Hawai'i Progress Map descriptors. The profile provides the "big picture" of ELA benchmarks for the full school year.

Samples of student work will accompany this record and simply be placed inside the student's folder. When including a sample of student work, *label the student work* with: (1) Student ID#, (2) Date, (3) letter/column associated with benchmark (e.g., 5R-KH-01, 8/7/09, B). **In some cases, an assessment *could assess* more than one benchmark, so include all letters/benchmarks that apply.** (See next pages for letters/columns associated with the Hawai'i ELA benchmarks.)

<u>Check all benchmarks for which you have monitored progress</u> **(√)** this year.

√	**A** = Comprehension - **LA.5.2.1**	√	**F** = Interpretative Stance - **LA.5.3.3**	√	**K =** Vocabulary – **LA.5.1.1**
√	**B** = Comprehension - **LA.5.2.2**	√	**G** = Personal Connection - **LA.5.3.7**	√	**L** = Use of Resources – **LA.5.1.2**
√	**C =** Comprehension - **LA.5.2.3**		**H** = Critical Stance - **LA.5.3.4**		
	D = Interpretative Stance - **LA.5.3.1**		**I** = Critical Stance - **LA.5.3.5**		
	E = Interpretative Stance - **LA.5.3.2**		**J =** Literary Elements - **LA.5.3.6**		

DIRECTIONS for Documenting Progress:

/ in the box indicates the skill/concept has been introduced, but the student has not yet demonstrated conceptual understanding or consistently applied the skill (e.g., identify characters in different texts). It may be necessary to: scaffold instruction; re-teach the concept using another approach or another text/activity; or re-assess acquisition of skills/concepts at earlier levels if not yet mastered. <u>Administering formative assessments during instructional activities is highly recommended</u> to guide instructional planning and appropriate timing of the summative assessments. (You may wish to collect some of the shorter formative assessment probes you've used, in addition to pre-mid-post assessments.)

X in the box indicates the student has fully met expectations, meaning that there is *sufficient evidence* (assessment data from multiple formats – teacher observations, formative assessments, performance tasks, etc.) to support this conclusion.

Use this form to complete one profile for each student. Collect work samples with ID#, date, & benchmark (A, B, C, etc.).

OPTIONAL: Add any other notes/descriptors of performance to make the profile more useful or meaningful. Please note the number of assessments you're including with student work samples.

ELA	A	Is the student using organizational patterns (e.g., compare and contrast, proposition and support) to access information?	B	Can the student make inferences and draw conclusions about grade-appropriate texts?	C	Can the student distinguish between explicit and implied information?
PM descriptors		**Comprehension - LA.5.2.1** Understanding Text Structure		**Comprehension - LA.5.2.2** Constructing Meaning		**Comprehension - LA.5.2.3** Constructing Meaning
Advanced		Teacher notes that student showed proficiency "x"		Student has NOT shown proficiency yet on this benchmark		
Proficient	X	Use organizational patterns (e.g., proposition and support) to access and construct meaning.	/	Make conclusions about grade-appropriate texts	/	Distinguish between explicit (i.e., directly stated) and implied (i.e., inferred) information.
		2 assessments		**1 assessment – will continue in 3rd quarter**		**2 assessments– will continue in 3rd quarter**
Approaching Proficient	X	Use graphic representations to organize information in texts (e.g., proposition/ support frame, etc.).	X	Use prior experience to draw a conclusion based on a simple text with clear clues as to a possible outcome (i.e., "The coyote was hungry. He saw a rabbit. So he…").	X	Locate clues within a text that might support an inference.
		1 assessment		**1 assessment**		**Teacher observation/question student after reading**
		Locate words that give clues to the organizational structure of a text (e.g., expert said, examples to support, etc.).	X	Draw a conclusions about a passage based on both the text and an illustration.	X	Identify explicit information in a text (i.e., find answer to a who, what, when, where question).
				1 assessment		
Foundational	X	Identify the elements of an organizational pattern (e.g., proposition and support, problem-solution, cause-effect, etc.).	X	Identify what is happening in a text after viewing an illustration.	X	Define implied or inferred information as logical guesses based on personal experience (e.g., The cat is limping so he must be injured.).
		2 assessments		**Teacher observation/question student after reading**		
Below lowest descriptor	X	Locate signal words in a variety of texts **1 assessment**		The teacher added notes about text structures included for instruction and formative assessments "below" the lowest descriptors on the Progress Map. Student successfully showed understanding. (See "x" in boxes for this benchmark.)		
	X	Match signal words with appropriate text structure **1 assessment**				
NOTES		Text Structures: sequence, cause-effect, chronology, description, compare/contrast, proposition/support				

	D: Can the student cite specific information or ideas in the text that support and develop the author's message or theme?	E	Can the student explain the relationship between plot events and how they build to the resolution of the selection's primary conflict?	F	Can the student explain how characters evolve over the course of a work?	G	Can the student describe similarities and differences between characters and themes in literary texts and personal or real world experiences?
	LA.5.3.1 - Interpretative Stance		**LA.5.3.2-** Interpretative Stance		**LA.5.3.3-** Interpretative Stance		**LA.5.3.7** – Personal connection
	Advanced						
/	**Proficient** Cite specific information or ideas in the text that support and develop the author's message or theme	X	Explain the relationship between events and resolution such as cause and effect, coincidence, chance, etc. and how they build to the resolution of the selection's primary conflict	X	Explain how characters evolve over the course of a work.		Describe how the characters and theme in a text are alike or different from own life or the real world (text to self, text to world).
X	**Approaching Proficient** Cite details in the text that support the theme.	X	Identify important events that leads to resolution	X	Tell how a character changes over time (e.g. in the beginning… - now…)		Identify a theme from a text and connect it to own experience or world experiences
X	Identify the author's message.			X	Cite a change in the main character's actions, thoughts, or feelings.	X	Align similar attributes, actions, or motives between self and character
	Foundational						
	Below Lowest Descriptor						
NOTES			**Made connections between signal words, text structures & cause-effect in story events**				

> The teacher includes some information on other benchmarks, although reading comprehension was the focus for the data collection. (See "x" or "/" for other benchmarks achieved or almost met.)

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Appendix F

Form 1: Learner Characteristics for Reading

Student _____   Grade ____   Student ID# _____

Directions: List student ID# at top of page. Check all descriptors that apply (3 times during the instructional time). Describe instructional supports to which the student responded positively.

Reading	Learner Characteristics	Pre	Mid	Post	Instructional Supports that Worked
Self-Monitors/ Uses Reading Strategies	Uses no fix-up strategies				
	Tries some fix-up strategies with limited success				
	Fix-up strategies help to construct meaning; self-corrects for meaning				
Decodes **Uses Reading Strategies**	Reads one-syllable, short vowel words & words with silent *e*				
	Uses word patterns & syllable types to decode common words				
	Uses patterns, affixes, roots to decode multi-syllable words				
Retells **Comprehends**	Not able to retell what was read (read aloud or silently)				
	Partial retell; has some story elements				
	Retell is logical; includes all story elements				
Predicts **Comprehends**	Unable to predict; or predictions not supported by text/illustrations/ visuals				
	Predictions consistent; text logically supports predictions /assumptions				
Paraphrases Summarizes **Comprehends**	Unable to summarize/paraphrase (e.g., only identifies topic)				
	Partial information; lacks key ideas or ideas in random order				
	Main ideas/events with relevant details in correct sequence				
	Transfers comprehension skills to different text genres				
Makes Relevant Connections Interprets	Unable to respond personally				
	Gives personal response, but not explicitly related to text				
	Response applies personal experiences & knowledge to text				
Asks Questions/ Interprets	Asks literal questions; short answer/word-level questions				
	Asks inferential/analytical questions				
Makes Inferences **Interprets**	Literal response; no interpretation; interpretation not logical				
	Logical interpretation; infers basic cause-effect				
	Logical & deeper interpretation; infers relationships between ideas or parts; elaborates with support				

Expands Vocabulary	Lacks understanding of key words/ideas				
	Understands most concrete/ literal word meanings				
	Uses word relationships (e.g., synonyms, analogies) for meaning				
	Learner Characteristics (cont)	**Pre**	**Mid**	**Post**	**Instructional Supports that Worked**
	Understands or interprets abstract/ figurative meanings				
Reading Attitudes/ Habits	Lacks interest or confidence in reading				
	Shows some interest or confidence				
	Self-selects books at appropriate level; Sustains engagement				
Communication Describe					
Auditory Describe					
Visual Describe					
Motor or Spatial Skills Describe					
Other?					

Learner Characteristics for Reading, Developed by Karin K. Hess (2008), National Center for Assessment using Keene's Major Point Interview (1997), Dewitz (Feb. 2003 *Reading Teacher*), Biggam & Itterly (*Literacy Profiles*, 2008), & Bonnie Campbell Hill (*Developmental Continuums,* 2001).

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Appendix G

Form 1: Learner Characteristics for Mathematics

Teacher _____   Grade ____   Student ID# _____

Directions:
List student ID# at top of page. Check all descriptors that apply (3 times during the instructional time). Describe instructional supports to which the student responded positively.

Math	Learner Characteristics	Pre	Mid	Post	Instructional Supports that Worked
Computational Skills and Procedures	Still developing understanding of numbers, counting, equals, basic math language & representations				
	Counts, skip counts, uses manipulatives, or calculator for **routine** operations				
	Connects the concrete (objects) to symbolic representations /expressions				
	Does **routine** computational procedures with and without a calculator; demonstrates some fluency of number facts & operations (+, -, x, ÷)				
	Performs specified **routine** procedures (e.g., rules for rounding, measuring, evaluating an expression)				
	Performs procedures with multiple steps or multiple decision points				
Conceptual Understanding	Performs basic routine procedures but cannot explain why/reasoning				
	Applies concepts only in familiar contexts (e.g., place value, estimating, =, ≤, ≥)				
	Can give example or non-example of concept or approach that will work				
	Explains a term, symbolic representation, principle, operation, or relationship (e.g., add-subtract)				
	Compares, classifies, or orders data, observations, or figures				
	Constructs and interprets simple representations (e.g., bar graph)				
	Extends and generalizes a pattern				
	Translates from one representation to another				
	Solves **routine** problems requiring the application of multiple concepts				
	Uses concepts to solve **non-routine** problems; generalizes to new situations				
	Explains thinking when more than one response or approach is possible				

Math	Learner Characteristics (cont.)	Pre	Mid	Post	
Problem Solving Skills	Misinterprets the question or unable to locate key information needed				
	Chooses a partial or inappropriate strategy to solve the problem				
	Solves simple problems with periodic support/scaffolding provided				
	Locates key information (e.g., question) needed to solve problem				
	Independently solves a one-step word problem				
	Retrieves information from a table, graph, or figure to solve a problem requiring multiple steps				
	Applies appropriate strategies/ approaches/ materials to solve **routine** word problems from various contexts				
	Applies computational procedures to solve **routine** or **non-routine** word problems from a variety of contexts				
	Applies variety of strategies/approaches to solve **routine** and **non- routine** word problems from a variety of contexts				
Attitudes / Habits	Demonstrates interest or confidence when using math to solve problems				
	Checks reasonableness of solutions; verifies results; self corrects				
	Sustains engagement; initiates different strategies when answer is not apparent				
Commu-nication					
Auditory					
Visual					
Spatial or Motor Skills					
Other?					

Learner Characteristics for Mathematics, developed by Karin Hess (2008), Center for Assessment, using Webb's Depth of Knowledge Levels (1997), *First Steps in Mathematics* (STEPS PD, Beverly MA, 2007), & *Mathematics Assessment Handbooks* K-2, 3-5 & 6-8 (NCTM, 2005).

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Appendix H

Student Work Analysis (SWA) Meeting Evaluation Survey #1 (August 2010)

For all Reading and Mathematics teachers participating in the
Hawaii General Supervision Enhancement Grant (HI GSEG)

Instructions: Please rate the following statements on a scale of 1 to 7 using the rating scales and keys under each question. If you are not able to provide an answer to a question, please indicate CR (Cannot Rate). **You can either:** <mark>highlight your response</mark> **or** underline your response **and email it back**. *Feel free to add other comments to explain any response if you wish. Names are optional.*

Please note that this information will <u>solely</u> be used to describe general participant responses about the usefulness & clarity of SWA workshop activities and materials.

Meeting Outcomes

A. I felt satisfied with the progress we made in reviewing student work for reading or mathematics.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | CR |
| (Strongly Disagree) | | | | | (Strongly Agree) | | |

B. I learned new and effective strategies for reviewing student work for reading or mathematics.
.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | CR |
| (Strongly Disagree) | | | | | (Strongly Agree) | | |

C. I already knew all or most of the strategies for reviewing student work and did not learn any new ideas today.
.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | CR |
| (Strongly Disagree) | | | | | (Strongly Agree) | | |

Workshop Activities & Facilitation

A. I felt satisfied with my understanding of the strategies we can use to review student work back in our classrooms/schools.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | CR |
| (Strongly Disagree) | | | | | (Strongly Agree) | | |

B. Facilitators answered questions in a clear, concise, and appropriate manner.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | CR |
| (Strongly Disagree) | | | | | (Strongly Agree) | | |

C. Facilitators were well-organized and kept the workshop moving in a timely manner.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | CR |
| (Strongly Disagree) | | | | | (Strongly Agree) | | |

D. Materials used for the workshop were useful and I feel well-prepared to use them.
    1   2   3   4   5   6   7   CR
    (Strongly Disagree)   **(Strongly Agree)**

E. Individuals in my content group reflected a team orientation and collaborated well when coming to consensus on scoring or interpreting student work.
    1   2   3   4   5   6   7   CR
    (Strongly Disagree)   **(Strongly Agree)**

How could the <u>process</u> for student work analysis (SWA) be improved in the future?

Please explain how you intend to <u>use the information</u> gained from participation <u>in this meeting</u> (e.g., in your classroom, understanding of specific students, understanding of use of assessment).

Please provide any additional comments regarding the meeting.

Please rate the <u>overall quality</u> of this meeting (e.g., outcomes accomplished, quality of facilitation, satisfaction with activities to prepare you for the work ahead).
    1   2   3   4   5   6   7   CR
    (Low quality)   **(High Quality)**

Your Demographic Information
    A. Please indicate your content area:
        _____Reading   _____Mathematics

    B. Please indicate the grade-level your are working with:
        _____Grade K   _____Grade 3   _____Grade 6
        _____Grade 1   _____Grade 4   _____Grade 7
        _____Grade 2   _____Grade 5   _____Grade 8

    C. Please indicate your <u>area(s) of expertise</u>:
        _____Special Education
        _____Classroom Teacher
        _____Other, please specif

Student Work Analysis (SWA) Meeting Evaluation Survey #2 (January 2011)

Instructions: Please rate the following statements on a scale of 1 to 7 using the rating scales and keys under each question. If you are not able to provide an answer to a question, please indicate CR (Cannot Rate). **Please <u>circle your responses</u> <u>and return</u>**. *Feel free to add comments to explain any response.*

Please note that this information will <u>solely</u> be used to describe general participant responses about the usefulness & clarity of SWA workshop activities and materials.

SWA Meeting Outcomes – I have now participated in _____ SWA sessions (2009-2010) – include both the school-based session on your own and Saturday sessions. I think it will be 6 if you started in July and went to all of them

A. I feel satisfied with the progress I've made so far this year - using what I've learned from analyzing my students' work with others.

1	2	3	4	5	6	7	CR

(Strongly Disagree)   **(Strongly Agree)**

B. I have learned/ applied new and effective strategies for using SWA to plan instruction or assessments.

1	2	3	4	5	6	7	CR

(Strongly Disagree)   **(Strongly Agree)**

C. The most beneficial outcome of the SWA sessions <u>for me</u> was:

Workshop Activities & Facilitation

A. Information presented was relevant to me, my colleagues, and ultimately my students.

1	2	3	4	5	6	7	CR

(Strongly Disagree)   **(Strongly Agree)**

B. Facilitators were well-organized and kept the workshops moving in a timely manner.

1	2	3	4	5	6	7	CR

(Strongly Disagree)   **(Strongly Agree)**

C. Materials used for the SWA workshop were useful and I feel well-prepared to use them in the future.

1	2	3	4	5	6	7	CR

(Strongly Disagree)   **(Strongly Agree)**

D. Individuals in my content group reflected a team orientation and collaborated well when coming to consensus on scoring or interpreting student work.

1	2	3	4	5	6	7	CR

(Strongly Disagree)   **(Strongly Agree)**

Please explain how you intend to <u>use the information</u> gained from participation <u>this year</u> (e.g., in your classroom, understanding of specific students, understanding of use of assessment data, collaborating with colleagues).

How could the SWA <u>process</u> for student work analysis be improved in the future?

Please provide any additional comments.

Please rate the <u>overall quality</u> of the SWA meetings (e.g., outcomes accomplished, quality of facilitation, satisfaction with activities to prepare you for applying strategies in the future).

1	2	3	4	5	6	7	CR

(Low quality)   **(High Quality)**

Your Demographic Information

A. Please indicate your content area:
    _____Reading   _____Mathematics

B. Please indicate the <u>grade-level</u> your are working with:
    _____Grade K   _____Grade 3   _____Grade 6
    _____Grade 1   _____Grade 4   _____Grade 7
    _____Grade 2   _____Grade 5   _____Grade 8

C. Please indicate your <u>area(s) of expertise</u>:
    _____Special Education
    _____Classroom Teacher
    _____Other, please specify _____

Appendix J

(Streamlined) Student Work Analysis—Formative Assessment Tool

(Not used initially in the project, but developed as a more practical tool that would be less cumbersome for teachers.)

Aligned to Standards:

1. Using district/classroom assessment or rubric, describe expectations for performance:
(See wording of assessment prompt, genre-specific rubric wording, and CCSS standards for determining expectations for this assessment)

_____

_____

2. Quickly "sort" students' work by degree of objectives met (list student names in each category). Start by sorting 2 larger piles: met and not met. You may also need a "not sure" pile. Then re-sort each of those piles into two more piles: not met-partially met, and met and met and exceeded. Any remaining papers that you were not sure about can now be matched with" typical" papers in one of the other piles. Estimate class percents for each set of papers.

Objectives not met	Objectives partially met	Objectives fully met	Objectives fully met and exceeded
% of class	% of class	% of class	% of class

3. Choose samples from each group/category and describe "typical" performance, or specific performance of selected students in each grouping.

Objectives not met	Objectives partially met	Objectives fully met	Objectives fully met and exceeded

4. based on above descriptions, describe learning needs of identified students (or students in each targeted group)

Objectives not met	Objectives partially met	Objectives fully met	Objectives fully met and exceeded

5. Identify differentiated strategies to move ALL groups of students forward. Note any patterns or trends. What will some students benefit from? What will all students benefit from?

School Leader Survey

- o ~~Principal~~
- o Assistant principal
- o School curriculum coordinator/curriculum developer
- o District curriculum coordinator/curriculum developer
- o literacy or numeracy coach
- o staff development specialist
- o department chair
- o mentor teacher
- o other (please describe):

2. **How would you describe your role in supporting Field Test (FT) teachers in your school during the Hawaii LP Project? (Check all that apply.)**
   - o Providing time for teachers to meet
   - o Providing substitutes/coverage for teachers to have released time related to project
   - o Providing additional resources for teachers to implement LP project, specific lessons, or assessments
   - o Acting as a Mentor – as a curriculum/instructional specialist
   - o Acting as a Mentor – as an assessment specialist
   - o Attending curriculum/lesson planning meetings with teachers
   - o Attending student work analysis meetings with teachers
   - o <u>Facilitating</u> curriculum/lesson planning meetings with teachers
   - o <u>Facilitating</u> student work analysis meetings with teachers
   - o Locating available resources (please describe):
   - o Other (please describe):

3. **What have you seen as the <u>greatest impacts</u> as a result of teachers' participation in the research project? (Please feel free to elaborate on any that apply.)**
   - o curricular planning at the school?
   - o teaching/instruction/lesson planning?
   - o their view of students/student learning?
   - o their approach to/understanding of formative and summative assessment?
   - o Collaboration?
   - o Other?

4. **Do you have any comments about …**

Teachers' collegial discussions about how children learn.

Teachers analyzing student work/ assessment data *with colleagues*.

Teachers' attitudes about *average* or *high* performing students have changed as result of this work.

Teachers developing high quality *formative assessments*.

Teachers developing instruction that targets specific learning needs.

5. **What have you seen as the teachers' greatest challenge(s) during this project and how have you or the teachers addressed it?**

6. **Are there any plans to sustain, expand, or enhance use of learning progressions in any way at your school? (Feel free to elaborate on your response.)**

7. **What else would you like to share with us? Is there anything we haven't asked about that you'd like us to know about your school's involvement with the LP project?**