Synthesis Report 86

Educating Struggling Learners: Reflections on Lessons Learned about Curriculum, Instruction, and Assessment



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Educating Struggling Learners: Reflections on Lessons Learned about Curriculum, Instruction, and Assessment

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Preface |

For the past several years, the United States Department of Education (USED) has offered states opportunities to engage in focused research and development on inclusive assessment practices through General Supervision Enhancement Grants (GSEGs) and Enhanced Assessment Grants (EAGs). The National Center on Educational Outcomes (NCEO) has partnered with many states in these efforts and we have built many of our technical assistance and dissemination tools, products, and practices based on the lessons learned in these GSEG and EAG projects.

We worked very closely with practitioners and Hawai'i state and district leaders in a GSEG and, previous to that, in an EAG project, as well as in technical assistance activities since 2004. Since the beginning of our partnership with Hawai'i, the state has focused on the challenge of ensuring that struggling and at-risk learners (with and without disabilities) have appropriate opportunities to learn, and then are able to show what they know in the state assessment system.

A key intervention strategy that Hawai'i has targeted in the funded projects is the development of progress maps as a resource for teachers of struggling students. The progress maps were built on the state's reading and mathematics standards for grades K-8. We have captured many of Hawai'i's lessons learned in products available at the NCEO GSEG project webpages (http://www.cehd.umn.edu/NCEO/gseg/default.htm) and in the Tri-State EAG website (http://tristateeag.nceo.info).

We believe that the story of Hawai'i's work is told only in part through the available research reports and lessons learned documents. Hawai'i practitioners and leadership not only have contributed to the emerging field of content learning progressions in their work on progress maps, they also have contributed to our understanding of the complexities of educational reform implementation around the curriculum, instruction, and assessment triangle at the school, district, and state levels. Hawai'i is unique in that it is a single district state, so reforms "from the top" are implemented "from the bottom" by the same people. The research report by Karin Hess (2011)—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—includes the methods, results, and implications of the work from the perspective of the state and the GSEG research design. It can be found at www.nceo.info. There is more to the story of this research than is typically included in a final research report however. This first person narrative report is meant to give additional perspective from across the educational system, from the front lines of the schools and classrooms involved in the research.

Over the course of our work with Hawai'i, Valerie Kurizaki in particular played multiple roles, including state level leader, project facilitator, and school curriculum leader. Her story is particularly revealing of the complexities of school reform across the entire system. We asked her to "tell the story" from her perspective, sharing successes and challenges, opportunities and barriers. This is a first person account

of someone on the front lines of school reform, specifically focusing on inclusive assessment practices as they influence curriculum, instruction, and assessment at the local and state levels.

Valerie Kurizaki is a Complex Area Academic Coach within Central District of the Hawai`i State Department of Education to ensure systemic standards implementation that supports all students, especially struggling learners. She also provides consultative and professional improvement support for a middle school in restructuring status for No Child Left Behind (NCLB) accountability. She holds a B.Ed + 5th Year Professional Certificate and M.Ed from the University of Hawai`i, Manoa. Her 40 years as an educator include 23 years of classroom experience in elementary and middle schools, eight years as district-level literacy resource teacher, two years as a state-level mathematics resource teacher, and three years as coordinator/co-developer of state standards learning progressions for K-8 mathematics and language arts. She also has served in a variety of leadership capacities at the school level as accreditation, curriculum, and middle-school coordinator and new teacher mentor.

Her story suggests many themes that are similar to those in districts around the country where systematic reform has improved outcomes for all students, including students with disabilities. Some of these districts are featured in an NCEO website called *Moving Your Numbers* (movingyournumbers.org). These district stories tell a more institutionalized story of reform. Presented here is a first person account of the opportunities and challenges of the pathways to success from the front lines of inclusive reform.

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Overview

As one of the five states in the Multi-state GSEG Consortium Toward a Defensible AA-MAS (GSEG), Hawai'i's efforts focused on curricular pathways to support teachers in ensuring all students could access and achieve the academic standards for their grade level. We had coined the term "progress maps" for these pathways in a previous initiative, an Enhanced Assessment Grant (EAG) that had just been completed. Through the EAG, we had developed progress maps for the state's reading and mathematics standards for grades K-8. These served as a resource for teachers needing to clarify their interpretation of the state's standards and track students' learning achievement. The goal for the new GSEG project was to see to what extent this tool could be used to support struggling learners, including those with disabilities. The purpose was to facilitate access for all students to the same challenging standards-based curriculum with appropriate supports to meet their academic needs, social-emotional development, and personal well-being. We also hoped to reflect on the success of this effort, and the potential for sustained efforts into the future.

In this paper, I review the work that the Hawai`i Department of Education (HIDOE) completed in developing progress maps. This work demonstrated avenues or routes that students took to access the content of mathematics and reading. I then reflect on the activity of the GSEG-funded project, offering a personal perspective on the formal research findings documented by Karin Hess (2011). Finally, I offer my reflections on the local implementation of the project products and processes, as well as lessons that we learned throughout the project.

Background -

About seven years ago I was assigned as a resource teacher to work with the state-level mathematics educational specialist for the HIDOE. The HIDOE is a single-district system. State-level personnel develop the strategic goals and plans for statewide implementation to provide assessment-driven standards-based education with the intention to support all students to successfully be college- and career-ready upon high school graduation. This body also provides professional development for the leadership teams of each high school complex area. In turn, complex area leadership teams work with their respective high schools and feeder middle and elementary schools.

Upon my entry into the state-level position, the HIDOE was involved with an Enhanced Assessment Grant (EAG) to revise the state's alternate assessment to increase reliability and validity. Another goal was to ensure alignment to the state's reading and mathematics standards. Previous attempts had yet to be deemed acceptable. During the planning stages, state-level general and special education educational specialists worked with an assessment consultant from Mas-

sachusetts, who headed the development of a system to support teachers during individualized educational program (IEP) planning and development of alternate assessments based on alternate achievement standards (AA-AAS). We learned about options used in Massachusetts for using curricular tools that helped teachers identify "entry points" along a continuum to achieving the state standards, regardless of where that student was at the beginning.

Subsequent discussions uncovered possible barriers to implementing standards-based IEPs and alternate assessments in Hawai`i. Sometimes teachers misinterpreted the intent of the standards or were not quite sure of the criteria for proficient student work products or performance, or for those demonstrating development along the way to proficiency. Similar issues also were occurring with general education assessments and learning tasks. I wondered how this could be happening given heavily attended state-wide trainings on developing effective assessments for formative and summative purposes. The HIDOE also had provided differentiated instruction, universal design lesson planning, and numerous workshops and conferences, and yet acceptable assessments, assessment criteria, and differentiated or modified lessons and IEPs persisted as concerns.

State-level personnel decided to table the development of alternate assessment criteria and tasks until a learning progression similar to the Massachusetts model was available for all teachers in general education and special education. The goal was to ensure clearer interpretation of the level of mastery expected by the state's reading and mathematics standards for grades K-8. Funding from the EAG supported the beginning of a research effort focused first on developing and validating learning progressions. These learning progressions were tools hypothesized to support teachers' curricular, instructional, and assessment decisions to provide education on academic standards for all students, including students considered at-risk or not meeting grade-level expectations. Teacher-created assessments would only be as valid and reliable as the degree to which they were aligned to the standards they were intended to measure.

Development of Hawai`i's Progress Maps •

The Hawai`i investigation that took place through the EAG was an interdisciplinary pilot to develop high quality, validated within grade-level performance indicators and performance tasks to measure progress and attainment of "hard-to-assess" students. A strategic standards-implementation model was already in place to guide collaborative teacher planning of lessons and units based on clear learning goals, track student learning using checks for understanding during the course of teaching and learning, and evaluation of students' achievement, but it was not fully used by all teachers. This model and process included a collaborative student

work analysis (SWA) of pre-, mid-, and post-assessments to track student learning and inform teachers to continually adjust their instruction to support all of their learners' achievement of the standards. The question was whether learning progressions for Hawai`i's standards might stem inconsistent interpretation of the standards and allow improved access for the wide range of learners.

During my second year working at the state level, my role shifted from professional development provider to grant project coordinator for the development of Hawai`i's learning progressions for grades K-8 reading and mathematics standards. The learning progressions (now referred to as progress maps) for grades K-8 reading and mathematics standards were to be a tool for all teachers. Hawai`i's progress maps were going to clearly describe proficient attainment of grade-level benchmarks and be validated by the HIDOE and university-level content-area specialists and experts. The descriptions of the "typical" learning paths of students on their way to proficiency would be put forward based on the developers' research and classroom experience. These "level descriptors" would then be validated by practicing classroom teachers' observations and analysis of student work; these would indicate the degree of accuracy of the level descriptors and progress map drafts.

Hawai'i progress maps were developed to:

- Make it easier for teachers to consistently come to consensus on interpretation of grade-level benchmarks within and across K-8 grade levels.
- Clarify learning goals, answering such questions as, "What would it look like if my students were to proficiently meet grade-level benchmarks or cluster of benchmarks?"
- Be referenced for "points of entry" and scaffolding of student learning as teachers collaboratively develop standards-based assessments and lessons within and across grade levels, using the HIDOE "6-Step Standards Implementation Process."
- Provide information about grade-level content concepts and foundational skills as landmarks to guide instruction and monitor student learning.
- Support teachers' conversations about curricular, instructional, and assessment decisions as they move ALL students toward grade-level proficiency.

Fourteen teachers, seven for reading and seven for mathematics, were selected to develop the Hawai`i progress maps. They were selected for their content and pedagogical expertise in their content area. Teachers for both content areas spanned grades K through 12 with equal representation from elementary and secondary levels.

If the Hawai`i progress maps' content was to make any difference in the way educators plan for instruction, monitor student learning, and assess proficient achievement of the standards, the development process needed to use drafts of this tool within the HIDOE's collaborative standards-implementation process. The Hawai`i progress maps were to be one more resource to clarify the intent of the state standards for mathematics or reading.

Field testing drafts of the Hawai'i progress maps required pairs or trios of classroom teachers from the same grade level in a school to collaboratively plan reading or mathematics units using the "Standards Implementation Process" provided by the HIDOE, and the Hawai'i progress maps. Following the steps of this process, each grade-level team of teachers systematically planned common pre-, mid- and post-assessments and rubrics, developed a quarter's worth of lessons based on their learning objectives, and monitored their students' learning using results from their analysis of student performance on the common assessments.

It was expected that the experience would be mutually beneficial for classroom teachers and Hawai'i progress map developers. Classroom teachers would have access to more detailed descriptions of proficient performance for each grade level's benchmarks that were previously validated by state-level specialists and university-level content experts. Teachers would provide the following feedback directly to the developers of the progress maps:

- 1) Comments, questions, and suggestions that may be helpful for the developers to revise the level descriptors leading to proficient performance as displayed by the students in their classes.
- 2) Suggested wording and additional information the developers could include, delete, or revise to make the level descriptors more user-friendly and less likely to be misunderstood by classroom teachers.

The developers expected to obtain valuable information from teachers' observations and from documented collaborated analyses of student work resulting from common pre-, mid-, and post-assessments employed by the field test teachers. These data, in addition to the informal notes, were needed to validate or revise the descriptors of learners' typical growth steps toward proficient performance for the reading and math standards in the Hawai'i progress maps.

The wealth of formal and informal field data allowed the developers to fine tune the Hawai'i progress map level descriptors. More examples and concise language resulted in the reading and mathematics progress maps for grade K-8 becoming more user friendly and one step closer to more accurately describing typical developmental

paths students might take to successfully meet the state's standards and grade-level benchmarks.

Field testing was essential to validating the Hawai`i progress maps' descriptors of typical learning paths students take toward proficiency. Here is an example of how the process worked. The developers logically determined that at the most foundational level, students would be able to describe visual patterns, followed by number patterns at the next level for a grade six mathematics benchmark. However, data from the field indicated that visual patterns did not always precede number pattern descriptions. Students who were able to describe visual patterns still needed to learn how to look for and describe number patterns and vice-versa. The developers then revised the foundational descriptor. The next level, for example, was then determined to require that both types of patterns be represented in Figure 1.

Figure 1. Levels of Progression

	LEVELS OF PROGRESSION BELOW THE BENCHMARK		AT THE			
	Foundational Approaching the Benchmark		BENCHMARK	BENCHMARK	ADVANCED	
	Students will	Students will	Students will	Students will		Students will
Gr.	Describe visual or numeric patterns in words	Represent visual and numeric patterns with tables For example: Input Input (x) (y) 0 0 0 1 2 2 4 3 6	Represent visual and numerical patterns with tables and graphs (e.g., graph the input/output values in the table)	Represent visual and numerical patterns with tables and graphs, and generalize the rule using words and symbols	MA.6.9.1 Represent visual and numerical patterns with tables and graphs and generalize the "rule" using words and symbols	Represent visual and numeric patterns with tables and graphs, and generalizes a multi-step rule using words and symbols

Several field test teachers suggested that the maps should be more user-friendly for teachers collaborating to plan, implement, and monitor student learning progress, as well as to adjust their curriculum, instruction, and assessment:

1) Hawai`i progress map descriptors helped them to understand their content area better due to the provision of content concepts (knowledge) and skills listed on the page preceding the grade-level descriptors for levels developing up to and for proficient performance. [Key content concepts, skills, broad understandings, and essential questions that might be helpful to plan standards-based units, lessons, and assessments were included on the page preceding the grade-level descriptors by the developers.]

- 2) Teachers understood the taxonomic demand of grade-level benchmarks more easily when explanations were simple and clear. [Starting each descriptor with a verb was done purposefully to communicate the taxonomic demand of the level descriptors for each map.]
- 3) Examples included in the level descriptors were most helpful. [Examples were included in the descriptors when they added clarity to the descriptor.]

These types of descriptive feedback helped the developers make the Hawai`i progress maps more precise, user-friendly, and informative for classroom teachers.

Instructional practices and curricular choices to support learning for the variety of learners encountered in their classroom experience continued to surface in the developers' conversations. The richness of this dialogue sparked developers who were classroom teachers to take back some of the ideas to try with their students. They would then bring back stories about what happened with some of the learning that occurred for students they considered to be hard-to-reach. The frequency of the developers coming together to discuss the standards and developmental stages of students on their way to meeting those standards was seen as a key factor that they attributed to improved learning for their own students.

Still, the reality of the limited time in the present school day usually does not allow ample time for teachers to plan collaboratively, use formative data to adjust instruction, or just talk about student learning on a regular basis. I began questioning whether all the work hours, effort, and money expended to develop the Hawai`i progress maps would end up being a valuable experience for developers and field test teachers contracted for this project, and just end there. Fortunately both within the state and nationally, Hawai`i's decision to invest in its development as a tool to guide teachers in instruction of struggling learners continued to be viewed as cutting-edge and essential research, and we were able to move forward.

Using Progress Maps with Struggling Learners

After three years, Hawai`i's progress maps for grades K-8 mathematics and reading were completed. The HIDOE now has grades K-8 progress maps for all five of Hawai`i's mathematics strands [Patterns, Functions and Algebra; Number and Operations; Geometry; Data, Probability and Statistics; Measurement] and all three of Hawai`i's reading standards [Literary Response; Conventions and Skills; Comprehension]. This is available on the HIDOE website (http://standardstoolkit.k12.hi.us; click on Enter HCPS III link, then Document Library).

At that point, the GSEG project set out to learn about the extent to which use of the Hawai`i progress maps could help teachers to better support struggling learners to have equal access to the same curriculum as their general education peers. The methods, questions for inquiry, and summary of lessons learned from the formal research are covered in the Hess (2011) research report. There were other more practical lessons learned, resulting in new understanding of the assumptions and reform context in which this research took place. These practical lessons learned raise questions about how to build capacity to move all teachers forward, and how to find the time to maintain the gains already made.

For example, the HIDOE Standards Implementation Model (see Figure 2) was presumed to be in place during the GSEG project. This model requires teachers to plan lessons collaboratively, based on common end-of-unit or end-of-quarter assessment criteria and tasks, then monitor student learning with appropriate instructional adjustments. State and district specialists provided a review of the Standards Implementation Model with special emphasis on when and how the Hawai'i progress maps would be most helpful. It was assumed that a majority of teachers would know the model use it to plan and monitor standards-based teaching and learning.

Figure 2. Standards Implementation Model

Implementation Steps	Progress Map
Identify relevant Benchmarks/Standards Which benchmarks will be the central focus of the lesson/unit?	Collaboratively <u>clarify proficient attainment of the benchmark(s)</u> Supports Unpacking/deconstructing benchmarks
② Determine acceptable evidence and criteria. What evidence will show that the student has met the standards?	Collaborativelyestablish evidence and criteria, and assessment task(s) allowing student to demonstrate proficient attainment of benchmarks/standards Supports development of Target-Method-Matched Assessments (Summative & Formative)
Determine learning experiences that will enable students to learn what they need to know and to do. What strategies/experiences will build understanding and help all students meet proficiency?	Collaborativelydevelop scaffolded "learning experiences" to support students learning towards proficiency. Provides developmental descriptors to determine possible "entry points" for instruction, and "stages along the way" to proficiently attain the benchmark(s)/standard(s)
 Teach and collect evidence of student learning. Assess student work to inform instruction or use data to provide feedback. What does the evidence indicate about the student's progress? What further instruction or support is needed? 	Provides developmental descriptors to determine possible "entry points" for instruction, and "stages along the way" to proficiently attain the benchmark(s)/standard(s)
G Evaluate student work and make judgment on learning results and communicate findings. What do recent assessments indicate about the student's level of proficiency?	

Teachers developed their learning objectives from the standards and grade-level benchmarks and established end-of-quarter assessment tasks so that teachers and students would know the end goal to be attained. Teachers taught their lessons and checked for understanding daily, but more formally they used the common pre-, mid-, and post-assessments. They collaboratively analyzed student work to gain formative data in order to further check for understanding to adjust their instruction. The level descriptors of the Hawai`i progress maps provided more information about what students were expected to show on the way to, and meeting, the standards. Teachers also were provided documents to track the learning of their struggling learners.

With all of this in place one would expect more than half of the struggling learners to make progress towards proficient achievement. However, results varied. In one instance, a student made gains up to the mid-assessment, then started to show a reversal in progress. In another case, the teacher just described the student as "not developmentally ready" during the whole quarter. Overall, the work sessions and documentation raised questions about whether or not all teachers really had the skills and knowledge we assumed they had. Once again, I worried that the tools we were developing were strong, but the support needs for teachers to use them effectively were very high.

As the work session continued for the pairs or trios of teachers to work on the first three steps of the model, it became apparent that for several groups of teachers, regardless of teaching experience, this was their first exposure to planning lessons collaboratively using the HIDOE Standards Implementation Model. Working together to establish consensus on their selection of prioritized standards, learning objectives, and planning of scaffolded lessons based on teacher-developed end-of-quarter assessments, the first three steps of the model required support from the standards-education specialists and Hawai`i progress developers who were regular users of the model. Teachers were provided research-based resources on effective assessments and instructional strategies for reading or mathematics.

A strong lesson we learned was that the state or district may provide models and procedures but classroom teachers who work with students daily may have limited or no knowledge of those resources, much less how to use them. This project was a means to bring forth those models and procedures, including the progress map, for standards-based education to happen in the classrooms of participating teachers.

The progress map developers and specialists observed that regardless of teaching experience, those teachers with strong content knowledge, especially in the area of mathematics, were better able to come up with assessments and lessons aligned to the standards and grade-level benchmarks. Content-strong teachers selected or created assessments and lessons that allowed

students to show their learning in a variety of ways, while others appeared to rely heavily on paper-and-pencil multiple-choice-type assessment tasks.

In one of the partner schools, the entire mathematics department participated in the study. The department head continued to provide mentoring as a consultant and coach for these mathematics teachers, and school leadership made a deliberate decision to have each of the core department heads relieved of classroom instruction for at least three years to receive special training and serve as content area coaches and data analyzers. Their assignment was to provide continual formative and summative data in addition to their other duties throughout the school year. Their research involvement was used as part of that training.

Recent dialogue with the mathematics department head suggested that the department has continued to use the tools from the project to organize student work portfolios. However, lack of dedicated time for collaboration to improve lessons, assessments and instruction, and for bringing new hires up to speed on this process, have posed challenges. How to regain the momentum that began with the project, and to spread the process to the whole school, will continue to be hurdles that need to be addressed.

Perspectives at the School Level —

Though still connected to the Hawai'i progress map research project, due to reorganization of state level personnel, I was assigned as a district-level Academic Coach in school year 2009-2010 to work with a middle school in restructuring status. This school's disadvantaged student population missed the NCLB Adequate Yearly Progress (AYP) benchmark for mathematics three years in a row. Only 32% of the disadvantaged students had a scaled score of 300 to meet the proficient performance cutpoint, short of the 46% needed to meet the AYP benchmark. Overall, 78% of students, and 58% of the disadvantaged population, met the AYP benchmark for reading in the same year. The school met the state's AYP benchmarks, but not all student groups met or exceeded state standards in reading and mathematics. The AYP benchmarks for the next school year posed a tougher challenge; the AYP benchmark for mathematics jumped to 64% of students needing to meet proficiency.

The district superintendent purposefully did not contract an outside agency to overhaul the school to meet NCLB AYP requirements. The district determined that two elements would produce better results: (a) an academic coach with strengths in assessment, data-driven standards-based education, and inclusive classroom experience with a range of students with special needs; and (b) funding to support the school to fully implement its strategic action plan. My work with the Hawai`i progress map development was a factor in my assignment to the district.

Several other factors affected the decision not to overhaul this middle school's efforts to meet NCLB AYP. The cost incurred by other schools that contracted with outside agencies ran into the hundreds of thousands of dollars over several years, but once AYP was met the school was left on its own with nothing systemic in place to replicate the positive results or to continually improve. The school's strategic action plan and goals contained most of the elements to move them out of restructuring. However, the school needed additional funding to act on that plan for full implementation of standards education, with a targeted effort to support the group of disadvantaged students. The administration and staff had professional learning communities (PLCs) for each content area. This communication system allowed leadership and staff to collaboratively make decisions about academics, the school culture, and more. Dedicated time needed to be scheduled for the content area PLCs to work collaboratively within and beyond the existing work day. The district provided funding to pay for substitute teachers or stipends as well as professional resources for teachers and students.

In the first year (2009-2010), mathematics department teachers started to establish ground rules to function as a PLC. Their focus was to systematically use the Standards Implementation Model that includes SWA data of common pre-, mid-, and post-assessments to inform curriculum and instruction adjustments for their learners. The mathematics department was introduced to and used the mathematics Hawai`i progress maps. Common quarterly curriculum maps, also called pacing guides, for each grade level were developed one quarter at a time. The development of common assessments and units for each quarter was described earlier. The series of lessons making up each quarter's units needed to include adjustments to support struggling learners who are also targeted as disadvantaged.

The English language arts (ELA) department already had a similar process in place and was making good progress, so my services were mostly consultative. The reading progress maps were already used by the department. The social studies and science departments were introduced to the model for implementation in the following year. This decision was made to allow me to give the mathematics department concentrated support to move the school out of restructuring status.

My role as academic coach required me to establish personal and professional relationships with the administration and staff. Though I was acquainted with some of the teachers in the mathematics department, I had to define the parameters of how we interacted professionally. Fortunately, because of the culture of positive working relationships present at this school site, establishing the working relationships was easy and mutually supportive. The challenge was for teachers to accept instructional changes—possibly related specifically to the needs of struggling learners—when most of the teachers were proud of the school's reputation for having a majority of its students scoring above the state's average.

The school faced a number of challenges in the first year of the project. Its accreditation self-study process was in full swing while the school was in the midst of classroom renovations. This required teachers to move in and out of their classrooms throughout the year. The principal who had been with the school for long period of time had just retired. The vice-principal was promoted to the principal's position and a new vice-principal was taking her place. At midyear, the registrar retired and was replaced by the existing curriculum coordinator. One of the mathematics teachers shifted to the curriculum coordinator's position. Another teacher was brought out of the classroom to take on the accreditation self-study process, support the new vice-principal with renovations, and be middle school coordinator. A new mathematics teacher who had just graduated from the university was hired.

Despite all the challenges, the mathematics teachers met on a regular basis. Using the Standards Implementation Model in a collaborative process, they began developing a more coherent standards-based curriculum. Assessments being developed were still evolving to be more closely aligned to the standards, and rubrics showed professional development was needed in this area. Minimal instructional changes that included students working in pairs or small groups began to occur, but the basic mode of instruction remained almost totally teacher-directed during the majority of the period. Teachers continued to use computational practice worksheets for two quarters of the school year, rather than following the agreed-upon mathematics problem-based curriculum designed to allow students a variety of modes of entry.

Two of the six math teachers increased small-group and paired instructional strategies, yet these strategies may not have been systematically selected to match the learners' styles or needs. Four of the six math teachers held on to a more traditional lecture/note-taking or whole-group and individual work strategy that leaves little time for students to construct their understandings. Daily implementation was not ensured by the Collaborated Standards Implementation Model or the Student Work Analysis (SWA) of pre-, mid-, and post-assessments that required teachers to note effectiveness of common curriculum and assessments and list follow-up instructional steps. The challenge was to determine how to encourage teachers to select instructional strategies that might not be in their comfort zone but might be what students needed.

The end-of-year state assessment results showed that the overall percentage of students who met proficiency in mathematics dropped four percentage points from the previous year. The percentage of students in the disadvantaged group dropped six percentage points. If this was an implementation slump, then the drop in percentages was not a big worry. The teachers understood the benefits of the up-front planning of common assessments and standards-based lessons using the Standards Implementation Model, including the SWA process for formative data. However, it was placing demands on their time after school, on Saturdays, on holidays, and during instructional time. Some began questioning the use of their time at the expense of their personal

lives and families or having the added burden of doing extra lesson planning for a substitute teacher to use.

In the second year (2010-2011), the state assessment was given online. Students had three opportunities to take the test, and the highest score would be taken for AYP purposes. Student scores on the first and second attempts can be used formatively in addition to ongoing teacher made assessment data. The school had begun using these assessments and used teacher input on students' classroom performance to determine which students were most likely to progress to meeting the identified standards. The distinction was made between those who had a good chance to meet the standards with more assistance and those who might not be able to meet the standards before the next round of state tests. Teachers collaboratively determined appropriate instructional interventions and then checked the effectiveness on students' learning at two- to three-week intervals. Teachers found the more frequent collaborated checks on learning progress helped them to support student learning more intentionally.

Lag times at the beginning and end of classes diminished in several classrooms over a period of three months since starting the procedure. Instruction and learning seemed to be more targeted and focused. More importantly, the excitement and celebration of seeing students once thought unable to achieve now making progress formed the greatest motivator to continue sharing and trying other instructional strategies that may not have been in the teacher's comfort zone. Previously, in the first year, the Hawai'i progress maps were just seen as another tool from the state DOE. Now, the Hawai'i progress maps have contributed to teachers' conversations and have been referenced more often to monitor student learning.

Successes and Continuing Concerns from the GSEG Project —

Our work has resulted in many successes. First, teachers who appeared to have a deeper understanding of their content were able to develop more varied assessments that allowed greater student access to show their achievement. These teachers' descriptions of follow-up instructional strategies usually described in detail actions students should display, as well as under what conditions they should be displayed, rather than using terms like "review" or "revisit" a skill or concept.

Second, project teachers found the Hawai`i progress maps helpful for identifying and tracking student learning. Many of the teachers noted that they gained a clearer understanding of the state standards and grade-level benchmarks. The listing of the content concepts and skills addressed by the standards also helped teachers develop learning goals and assessment criteria.

Some teachers even stated that they began to understand the content area better. This comment was voiced more by the elementary teachers than middle school teachers.

Third, though documentation to track the struggling learners was time consuming, many of the teachers shared that the information was thought-provoking. They noted that it forced them to be more deliberate about how they described their students' learning, selected instructional strategies, and recorded results. They often indicated that the process made their teaching more "intentional."

Still, there were continuing concerns. I began to wonder if a missing piece was whether project teachers had a better understanding about students with disabilities and how they learn. Some of these students needed to be paced differently or to have distracters minimized or taken away completely for them to take in the new learning, and then have other strategies to move that learning to long-term memory. Some of these strategies may not have been in the repertoire of the project teachers. Did we need to involve more special educators to collaborate with the general education teachers in the project so that the pool of instructional strategies would have included a broader range of differentiation? Adding a specific focus on articulating, identifying, and ensuring teachers have these skills is essential if all students are to be successful.

This question came to mind as I recalled some of the classroom observations. There were several classes that showed little or no lesson adjustments to accommodate the different learners during the entire period. This happened in classes with teachers who said that the Hawai`i progress maps helped them to understand the standards (learning goals) and to find the level of performance of their students. Interestingly, the lecture mode of instruction lasting longer than 15 minutes was still found in some elementary classes. These types of situations also made me begin to wonder whether we should have provided more professional development about how students with different disabilities and other struggling learners might learn best.

Conclusions on Our Continuing Work =

Tools like the Hawai`i progress maps help teachers to come to consensus collaboratively about what needs to be taught and to plan the content of the curriculum to be taught. However, to ensure that the curriculum is taught as it was intended in the classroom, teachers need to have a deep understanding of that content. They also need a repertoire of instructional strategies to respond to student work used to judge learners' progress. Instructional adjustments or accommodations, tailored to their learners, are possible when teachers are clear on the learning targets and have a sound understanding about how their students learn and show progress over time.

My present school assignment confirmed that teachers need to have self-confidence to recognize when their repertoire of strategies or content knowledge needs to be expanded. They need to be willing to learn from each other or even to bring in outside sources to add to their content or pedagogical knowledge. In addition, one could have breadth of curriculum and content (what is to be learned) and possess standards-aligned assessment criteria, tasks, and rubrics (how students will be assessed), but learning may still be hampered. Collaboration in PLCs continues to be essential for consistency of curriculum and assessment.

Without effective execution of instructional pedagogy based on comprehensive understanding of how each student learns, the collaboration to develop standards-based lessons and assessments, even with the aid of the progress maps, had little impact on student achievement for all learners, in particular for struggling students. It appeared to me that the existing capacity of each participating teacher to make use of the tools varied widely, and the assumptions we had made about teacher skills and knowledge in standards implementation processes were overly optimistic.

Still, there are indications that our school's effort to improve the quality of teaching through use of research-based tools and practices including the tools from the GSEG project are paying off. State test results showed grade 8 students were flat-lined, averaging 36% of the disadvantaged students scoring proficient on the state test over six school years. After one year of engaging in a self-reflection protocol and process in addition to collaborative PLCs, there was a rise to 47% of this subgroup scoring at the proficient level. In addition, grade 8 students, inclusive of all disaggregated groups, shifted from averaging 48% proficient over six years to 60% this past school year. Similar increases were demonstrated for students with disabilities as well.

Overall, PLC sessions—to collaboratively develop common assessments tasks and criteria, curriculum to scaffold learning towards desired outcomes based on the state standards and referencing the progress maps—have resulted in greater consistency across a grade level in specific core content areas. However, opportunities for teachers to reflect on their own instructional practices, committing to trying new strategies, followed by more self- and collaborated-reflections on the effects on students, seem to be one of the biggest benefits of the various PLC discussions.

Many other factors, such as policies and procedures established by state department of education offices, school administrator leadership, and school climate and infrastructure, influence effective implementation of standards for all students. However, focusing on what happens in each and every classroom—with supports for teachers to gradually gain confidence to grow their understanding of their learners and hone their instructional practices—seems to be an essential factor that needs to be given more attention.

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