



OGAP Professional Development

Through work with educators in Vermont, Alabama, and Michigan and advice from national experts two professional development and implementation models have evolved: a teacher leader model and a school based model. In the teacher leader model OGAP staff provide professional development and support directly to teacher leaders who in turn provide PD and mentor support to other teachers in their school as they learn about and then implement the OGAP formative assessment system. In the school based model a whole faculty receives direct professional development from OGAP staff.

ALL OGAP professional development models regardless of its structure include:

- Professional development on the substance of the research that is foundational to the OGAP materials and processes.
- Training in the use of OGAP formative assessment materials and processes.
- Use of the materials “real time” with students with links to mathematics programs.
- Systems with ongoing support for users.

Who should consider partnering with OGAP?

- 1) Programs or districts that use or support the development of teacher leadership in mathematics
- 2) Schools/districts that are looking to increase the use of formative assessment in grades 3 – 8 in mathematics (specifically fractions, multiplicative reasoning, and proportionality)

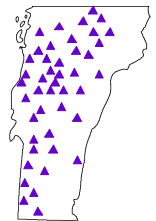
To speak with someone on how your district/school can get involved contact:

Marge Petit (mpetit@gmavt.net)

Bob Laird (rlaird@uvm.edu)

OGAP has been used in hundreds of classrooms and impacted thousands of students in Vermont, Alabama, and Michigan

Vermont: Vermont educators have been involved in early studies as well as in a variety of scale-up and implementations models using the OGAP fractions, multiplicative reasoning, and proportionality materials through: the Vermont Mathematics Partnership, the Vermont Mathematics Initiative (VMI), the Southwest Vermont Superintendents’ Curriculum Coordinators’ Collaborative, numerous district/school initiatives (2004-present).



Vermont Mathematics Initiative Executive Director Judi Laird, University of Vermont

“The partnership of OGAP and VMI is a strong and natural one. The VMI teachers bring a very deep knowledge of mathematics to the project. OGAP allows them to learn more about the cognitive research around learning of mathematics and about formative assessment and intertwined these important aspects of effective teaching. The result is a powerful model by which to disseminate OGAP material throughout the state and elsewhere.”

¹ (OGAP was developed by the Vermont Mathematics Partnership funded by the US Department of Education (Award Number S366A020002) and the National Science Foundation (Award Number EHR-0227057))

Alabama - Mobile Math Initiative (2006 - present)

OGAP has involved grade 3 – 6 educators in Hoover, Decatur, and Mobile Alabama as a part of the Mobile Mathematics Initiative (MMI). The MMI program is designed to build and support mathematics teacher leaders. This summer this work will be extended to middle school educators in Mobile, Alabama with a focus on OGAP fractions and proportionality.

Mobile Mathematics Initiative Executive Director Susan Pruet, Mobile Area Education Foundation

“The MMI is a program designed to build and sustain teacher leadership in mathematics in Alabama schools. OGAP has become an integral part of MMI professional development and implementation model as teachers learn about cognitive research on how students learn develop understanding of fractions, multiplicative reasoning and proportionality concepts and then use OGAP formative tools and strategies to inform their instruction. Our MMI principals and teachers are finding the OGAP experience very powerful; their only lament is, ‘Why hasn’t this research been put in this format before?’”

Michigan – Michigan Mathematics and Science Teacher Leadership Collaborative (2008-present): The Michigan Mathematics and Science Teacher Leadership Collaborative ((MMSTLC) project is embedding OGAP fractions and proportionality professional development into the training of middle school teacher leaders.

MMSTLC mathematics project director Judith Flowers, University of Michigan, Dearborn Michigan

“Our goal for the Michigan Mathematics and Science Teacher Leader Collaborative (MMSTLC) is to develop middle school teacher leaders in mathematics (and science) in high-needs schools. Having our mathematics teacher leaders participate in OGAP training was instrumental in their professional development experiences within the project. In particular, the training provided them with the opportunity to develop a deep understanding of the issues involved in teaching and learning about proportionality; to gain the skill and knowledge to interpret student thinking in this domain; and to recognize and appreciate the power of using formative assessment practices. When asked to evaluate their OGAP training experience, the participants were overwhelmingly positive. As one participant stated, “I enjoyed this workshop, and I am surprised about the amount of mathematics, as well as strategies, that I have learned.” “

OGAP National Advisory Board Member – Judith Zawojewski, Illinois Institute of Technology

“I have been an advisor and consultant during the development and implementation of OGAP, and have found the OGAP system to be a remarkable body of work. The program has developed tools for teachers to engage in formative assessment *in the context of their own practice*. Research from mathematics education literature has been translated into materials that “speak” to teachers by drawing on empirical

studies and theoretical perspectives, by engaging expert review throughout the development process, by extensive ongoing field-testing the materials with teacher-leaders and teachers learning from the leaders, and by formally assessing what both *teachers'* and their *students'* learn as a result of engaging in the OGAP system. Actual student work, teacher-leader perspectives, and teacher suggestions are included in the materials to illustrate and substantiate the content of OGAP. Overall, the substantial work is a major contribution to the field, and hopefully in the future will be expanded to address other topics within the field of mathematics education.”

Some teacher testimonials

“Prior to this training I was a first year teacher with an overwhelming sense of dread. Not only did this leave me excited and ready to teach fractions, but I am suddenly less worried in general because I feel confident and can use these tools everywhere to help myself.” Vermont educator

“The concepts and ideas about fractions really make sense now. Analyzing my students work has enabled me to focus on where their specific needs are and the training has given me a stronger understanding and tools to use.” Vermont educator

“Reenergizing – very interested in getting into classrooms to work with students and staff.” Vermont educator

“This is the most powerful and effective professional development I have ever experienced.” Alabama educator

“Why hasn’t this research been put in this format before? Now I get it.” Alabama educator

Some Survey Data of the IMPACT OGAP Use and Professional Development had on Teacher Practice (self reported)

Post survey data from 2006-2007 OGAP Fraction Scale-up Vermont and Alabama (*n* = 104)

OGAP professional development goals	Percent of teachers who rated themselves 4 or 5 on a 5 point Likert Scale (<i>n</i> = 104)	
	Before PD and use of OGAP	After PD and use of OGAP
Expertise in analysis of evidence in student work	7%	80%
Expertise in understanding purposes of activities in mathematics programs	13%	83%
Expertise in using evidence from student work to inform instruction	11%	84%
Fraction content knowledge	16%	72%

Post survey data from 2006-2007 OGAP Fraction Scale-up Vermont and Alabama - Use of OGAP

	Percent of Respondents (<i>n</i> = 104)
Indicated that other teachers in their school use the OGAP fraction materials and processes.	95%
Indicated that they will use OGAP multiplication and division materials when they became available.	87%

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