Vermont Mathematics Partnership Ongoing Assessment Project (OGAP)

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OGAP is an intentional and systematic FORMATIVE Assessment approach to gathering and interpreting evidence on student learning in mathematics – as students learn.

OGAP materials are aligned to national mathematics expectations (PSSM) and NCTM Focal Points, respond to elements of the National Mathematics 2008 Panel Report, and has a design based on research of how students develop understanding of concepts, common errors that students make, and misconceptions/preconceptions that students may have.

OGAP materials, resources, and professional development are available for fractions, multiplicative reasoning, and proportionality.

The OGAP system involves:

1) gathering information about pre-existing knowledge through the use of a pre-assessment;

2) analyzing the evidence in student work from the pre-assessment to guide unit planning; and

3) a continuous and intentional system of probing with OGAP questions during an instructional lesson/unit, analyzing evidence in student work, and making instructional modifications as students are learning.

The OGAP Formative Assessment System is supported by:

1) Pre-assessments that consist of short constructed response questions designed to elicit developing understandings, common errors, and pre-conceptions or misconceptions that may interfere with students learning new concepts or solving problems;

2) Item banks with hundred's of short constructed response questions EACH specifically designed to elicit understandings, common errors, and pre-conceptions or misconceptions that may interfere with students learning new concepts or solving problems (sample item);

3) Research based Frameworks for fractions, multiplicative reasoning, and proportionality used by educators to understand purposes of activities in their mathematics programs, understand evidence in student work, and make instructional decisions.

4) Strategies and tools for gathering information about student learning and for making instructional decisions (sample case study);

5) Strategies and tools that help teachers maximum the use of their mathematics programs/texts based on understanding of research and evidence in their student work (sample program link);

6) Instructional strategies teachers used in response to evidence in student work based on our work with over 300 educators who use OGAP materials in their classroom;

7) Materials and activities to communicate research (sample page from PD materials);

8) Professional development to support use and implementation of OGAP