

# Mathematics Assessment

COMPONENT #: 1-009-317

POINTS TO BE EARNED: 120 MPP

## PART I – PLANNING

**DESCRIPTION:** Write a brief description of content and intent of component.

This component is designed to enable the participant to gather evidence of student achievement and understand the instructional implications.

Upon successful completion of this professional development activity, the participant will be able to develop and incorporate meaningful assessment into his/her instruction.

**STANDARDS/FOCUS AREAS ADDRESSED BY COMPONENT:** Identify the standards, national/state/district imperatives, initiatives or key focus areas this component supports.

**Standards for Professional Learning** (choose one)

- |   |  |
|---|--|
| <input type="checkbox"/> Learning Communities | <input type="checkbox"/> Learning Designs    |
| <input type="checkbox"/> Leadership           | <input type="checkbox"/> Implementation      |
| <input type="checkbox"/> Resources            | <input checked="" type="checkbox"/> Outcomes |
| <input type="checkbox"/> Data                 |  |

**Florida Educator Accomplished Practices** (check all that apply)

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Instructional Design and Lesson Planning | <input checked="" type="checkbox"/> Assessment                           |
| <input type="checkbox"/> The Learning Environment                            | <input checked="" type="checkbox"/> Continuous Professional Improvement  |
| <input type="checkbox"/> Instructional Delivery and Facilitation             | <input type="checkbox"/> Professional Responsibility and Ethical Conduct |

**Florida Leadership Standards** (check all that apply)

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Student Learning Results          | <input type="checkbox"/> Decision Making                    |
| <input checked="" type="checkbox"/> Student Learning as a Priority    | <input type="checkbox"/> Leadership Development             |
| <input checked="" type="checkbox"/> Instructional Plan Implementation | <input type="checkbox"/> School Management                  |
| <input checked="" type="checkbox"/> Faculty Development               | <input type="checkbox"/> Communication                      |
| <input type="checkbox"/> Learning Environment                         | <input type="checkbox"/> Professional and Ethical Behaviors |

**IPEGS Standards** (check all that apply)

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> PS 2 – Knowledge of Learners                 | <input type="checkbox"/> PS 6 – Communication        |
| <input checked="" type="checkbox"/> PS 3 – Instructional Planning                | <input type="checkbox"/> PS 7 – Professionalism      |
| <input checked="" type="checkbox"/> PS 4 – Instructional Delivery and Engagement | <input type="checkbox"/> PS 8 – Learning Environment |
| <input checked="" type="checkbox"/> PS 5 – Assessment                            |  |

**IMPACT FOCUS AREA(S):** Select the intended impact focus area(s) from the choices below. Note that Impact Evaluation procedures should reflect this level of impact.

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Educator knowledge/skill (content) | <input checked="" type="checkbox"/> Student learning       |
| <input type="checkbox"/> Educator (professional growth)                | <input type="checkbox"/> Organizational support and change |

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**SPECIFIC LEARNER OUTCOMES:** Identify the intended learner outcomes (number and content of learner outcomes should be reflective of the total points participants will earn as a result of completing this learning).

1. Demonstrate knowledge of and use of the Mathematics State Standards as the basis for developing assessments in mathematics.
2. Develop skills in interpreting and analyzing student work to ensure improvement in student learning.
3. Analyze and interpret student data in order to make informed instructional decisions.
4. Align assessment with instruction to enhance student achievement.
5. Develop assessments to measure students' application of mathematical concepts in a real world and authentic context.
6. Design evaluative questions enabling students to reflect on their processes (student self-assessment).
7. Design performance-based activities that assess student ability to use mathematics to solve real-life problems.
8. Develop various questioning techniques that will help students share mathematical ideas and clarify mathematical understanding.
9. Identify and use alternative assessments.
10. Increase understanding in designing, analyzing, and utilizing rubrics.

## PART II – LEARNING

**LEARNING PROCEDURES:** Describe the experiences (the “what”) and formats/methods (the “how”) that will be used to provide participants with the knowledge and skills sufficient to master the intended learner outcome of this component.

1. Utilize the Mathematics Sunshine State Standards as the basis for developing assessments in mathematics (SLO 1 & 5).
2. Engage in a range of strategies and techniques for the purpose of assessing student understanding of mathematics standards (SLO 2 - 10).
3. Engage in designing and developing tools (i.e. formative and summative assessments, performance items, rubrics) to assess student mastery of the standards (SLO 1-10).

## PART III – IMPLEMENTATION

**IMPLEMENTATION PROCEDURES:** Method(s) and resource(s) that will be provided to support implementation of new learning for participants (check all that apply).

- X Apply newly acquired professional knowledge, skills, dispositions, and behaviors to improve practice.
- X Provide sufficient classroom- and school-focused support and assistance by skillful coaches, mentors, or others to the educator to ensure high-fidelity implementation of professional learning.
- X Provide educators with web-based resources and assistance to support implementation of professional learning.

## PART IV – EVALUATION

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**IMPACT EVALUATION PROCEDURES:** Describe the processes that will be used to determine the impact (as identified in previous section titled "Impact Focus Areas"). Description should reflect methods for determining at least ONE of those areas, and will include a specific section for each impact focus area identified for this component.

1. Educator knowledge/skill (content): Will consist of observation of participants actively engaged in professional learning activities and discussions on instructional practices to develop student understanding of assessments.
2. Student learning: Will include evidence (e.g. student sample work, pre and post assessments) verifying that the content impacted student achievement

**COMPONENT EVALUATION PROCEDURES:** Describe the process(es) that will be used to determine the effectiveness of this component to include design, implementation and impact (check all that apply).

- X Evaluate the impact of all professional learning on educator's practice through reflection, assessment, collaborative protocols for examining educator practice and work samples, peer visits, and/or professional portfolios.
- X Determine the degree to which educator's professional learning contributed to student performance gains as measured by classroom assessment data.
- X Use summative and formative data from state or national standardized student achievement measures, when available, or other measures of student learning and behavior such as district achievement tests, progress monitoring, educator-constructed tests, action research results, discipline referrals, and/or portfolios of student work to assess the impact of professional learning.

**Date Approved: 5/20/2014**

**Department: Mathematics**

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