

Math Leadership

COMPONENT #: 7-009-001

POINTS TO BE EARNED: 120 MPP

PART I – PLANNING

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

This component offers the understanding of how to identify, research, and implement research-based leadership strategies, instructional strategies, innovative teaching techniques, integrated technology, and/or new instructional materials that can be used to improve the school-site mathematics learning community, the instructional process and/or the participant's professional learning.

Upon successful completion of this component, participants will, through small group, on-site projects and demonstrations, portfolios, products, and/or participation in a mathematics learning community, be able to demonstrate a broad knowledge of applying collaborative learning skills (e.g., communication skills and skills of group dynamics), including reflecting on their own ability to contribute to the collaborative learning process. They will focus on Florida Continuous Improvement Model activities that impact: (1) the school mathematics curriculum and instructional programs; (2) mathematical instructional practices; and 3) student achievement in mathematics.

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 checked="" type="checkbox"/> Leadership | <input type="checkbox"/> Implementation |
| <input type="checkbox"/> Resources | <input 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 checked="" 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 checked="" type="checkbox"/> Decision Making |
| <input checked="" type="checkbox"/> Student Learning as a Priority | <input checked="" 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 checked="" type="checkbox"/> PS 7 – Professionalism |

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X PS 4 – Instructional Delivery and Engagement PS 8 – Learning Environment
X 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.

X Educator knowledge/skill (content) X Student learning
 Educator (professional growth) Organizational support and change

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. Explore, discuss, and implement the key leadership principles for mathematics leadership in the areas of equity, teaching and learning, curriculum, and assessment.
2. Research, discuss, design, and implement strategies for developing a collaborative school-site community of learners.
3. Identify current research, issues, and developments in the teaching and learning of mathematics.
4. Explore school-site data and conditions that enhance adult learning, support research-based practice, and promotes ongoing improvement of curriculum, instruction, and assessment.
5. Research, discuss, design, and implement instructional strategies that provide students at all grade levels with access to relevant and meaningful mathematics experiences.
6. Research and develop high quality programs that provide access to effective teaching of major mathematics concepts, foster high levels of achievement for every student, and reflect state standards.
7. Identify intervention techniques, strategies, and/or materials that can be used to assist students in improving their performance.
8. Explore current theories and strategies in effective instructional coaching for improving teaching practice.
9. Examine equitable methods, techniques, and practices addressing the diverse learning needs of all students.
10. Research, analyze, and implement the principles of continual quality improvement for professional growth.

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. Actively participate in professional learning activities to enhance leadership in mathematics: building and leading a mathematics learning community, implementing innovative instructional strategies, developing brain compatible mathematics classrooms, designing lessons that actively engage students, and evaluating materials for use in a mathematics classroom (SLO1-10).
2. Actively participate in discussions on leadership principles and strategies in mathematics, innovative strategies, techniques, technology integration, and/or materials to support specific instructional objectives (SLO 1-10).

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3. Implement the mathematics leadership principles and strategies learned (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

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 mathematics standards and innovative mathematical practices.
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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