STEAM Innovate

COMPONENT NUMBER: 2-408-042

> Function: Instructional Methodology/Faculty Development (2)
> Focus Area: Instructional Strategies (408)
> Local Sequence Number(s): (042)

POINTS TO BE EARNED: **75 maximum points per year**

DESCRIPTION:
The purpose of this component is to provide opportunities for teachers to receive best practices with STEAM (Science, Technology, Engineering, Arts, and Math). Upon successful completion of this component, participants will be able to create, collaborate, communicate, and think critically to adapt, design, and implement curriculum incorporating trends and techniques acquired through this component.

SPECIFIC LEARNER OBJECTIVES:
Identify the priority study and/or on-the-job implementation outcomes.
1. Demonstrate knowledge of research, theories, and practices in their area.
2. Identify methods of applying research or theories in their area.
3. Discuss trends in instructional programs in their area.
4. Demonstrate the ability to evaluate instructional effectiveness of selected trends.
5. Demonstrate the ability to adapt, design, and implement curriculum incorporating trends.
6. Demonstrate skills in organizing, conducting, and/or evaluating instruction in their area.
7. Develop, adopt, and/or select strategies for instruction and for evaluation of student progress.
8. Discuss methods of integrating instruction in their areas and of correlating with other disciplines.
9. Discuss alternative methods of evaluating student progress in their area.
10. Discuss trends in instructional materials in their area.
11. Discuss methods of evaluating the effectiveness of instructional materials.
12. Demonstrate the ability to evaluate, select, and adapt instructional materials in their area.
13. Discuss techniques for managing instructional materials, equipment, and resources.
14. Demonstrate the ability to share ideas, strategies, and knowledge with others in their area.

LEARNING PROCEDURES (Methods):
A: Knowledge Acquisition
I: Job-Embedded Workshop
B: Electronic, Interactive
D: Learning Community
F: Independent Inquiry
- **WHAT** will occur during this professional development component delivery?

Activities may include, but will not be limited to, such things as workshops, conferences, lectures, visitations to other classrooms or schools, individual research, demonstrations and presentations.
- **HOW** will the experiences be provided to participants during this delivery?

The design of activities will be sufficiently flexible so that a variety of activities of various lengths can be selected. Participants will engage in lectures, discussions, and activities designed to meet the specific objectives.

IMPLEMENTATION/MONITORING PROCEDURES:
P: Participant product related to training
- **ACTIVITIES** to be included in participant Implementation/Follow-Up (should support the specific

learner outcomes identified above):

Participants will take their new knowledge of instructional strategies and engage students in activities and lessons that include these strategies.

- **SUPPORT** to be provided for participant Implementation/Follow-Up (should support the specific learner outcomes identified above):

Course facilitator will provide resources and continuous support through emails, phones calls and classroom visits. Additional training will be provided if there is a need.

IMPACT EVALUATION PROCEDURES:

Staff A: Changes in instructional or learning environment practices implemented in the classroom

Student D: Observation of student performance

B: Results of school/teacher-constructed student growth measure that track student progress

- **What criteria will be used to evaluate the impact of the component on:**
  - o **Specific Learner Objectives?**

The Facilitator will ensure that the training covers the desired objectives. A trainer will be chosen that is knowledgeable and can provide the material in an engaging and effective way for participants.

  - o **Increasing Educator Knowledge?**

Participants will be asked to engage in activities throughout the training that will monitor their learning and understanding of the material. Skills will be demonstrated through verbal, written and collaborative means.

  - o **Changing Educator Practice?**

Participants will be asked to analyze test results, student work and observations of student performance and engagement to reflect on their changes in instructional practices.

  - o **Improving Student Outcomes?**

Teacher/school created tests and observation of student's performance will be used to determine how effectively the new strategies impacted student performance. Rubrics and student portfolios may also be used to monitor student impact.

Date approved:
Department: OPL
Name(s) of Component Author(s): Michael Knowlton
Revision Date: