

MSP Math Connections Evaluation Plan

Overarching Project Goal

The primary goal of the MSP Math Connections initiative is to provide the training and support essential for schools and teachers to meet the requirements of No Child Left Behind (NCLB) and Arizona Learns. The project targets teachers in need of focused professional development in the teaching of mathematics. The project will work with seven high-needs schools districts and those with low student achievement in mathematics as measured by the AIMS in Coconino County.

Project Strategic Goals

1. Prepare, train, and increase the number of Highly Qualified teachers of mathematics in the Coconino County.

Evidence, Assessment

We will use the first 3 quadrants of the Professional Development Accountability Model developed by Kathy Tucker (2003) for the ADE to measure the outcomes of this objective.

Quadrant 1 Objectives (Did we say what we would do and if so, how much?)

Objective 1: Deliver and complete the MAT 598 course, site follow ups, quasi-experimental design, analysis, and report write-ups in the given time frame.

Objective 2: Provide 3 credit hours of college credit and 4 PD mathematical content hours.

Objective 3: Enroll 60 teacher participants in the MSP Math Connections Program.

Objective 4: Increase the percentage of teachers receiving high quality professional development.

Objective 5: Increase the percentage of specific subgroups receiving high quality professional development (gender, ethnicity, ELL teachers, math teachers, principals, economically disadvantaged).

Quadrant 2 Objectives (How well did we do it?)

Objective 1: Report the % and level of participant approval for the context of the professional development (e.g., facility, physical arrangements)

Objective 2: Report the % and level of participant approval of the content taught and the follow up support and its level of difficulty.

Objective 3: Report the % and level participant approval of the process and delivery of the content and follow up support.

Objective 4: Report the % of participants who found the program content relevant to student achievement goals.

Objective 5: Report the % of participants who considered the stipends for their participation reasonable.

Quadrant 3 Objectives (How much effect/change was there?)

Objective 1: Report the # of participants completing the program.

Objective 2: Report the # of participants completing the program from specific subgroups (gender, ethnicity, ELL teachers, math teachers, principals, economically disadvantaged).

Objective 3: Report the # of participants becoming “highly qualified”

Objective 4: Report the # of students with teachers that are highly qualified, certified, endorsed, etc.

What methods and strategies of data collection will be utilized?

Sign-in sheets (participants)

Feedback Form (participants)

School/District Database

Questionnaire Survey (participants)

2. Increase the level of content knowledge of the Arizona Mathematics Standards

Evidence, Assessment

We will use Quadrant 4: Did participants increase knowledge and skills? Guskey Level 2 of the Professional Development Accountability Model developed by Kathy Tucker (2003) for the ADE to measure the outcomes of this objective.

Quadrant 4 Objectives: (What quality of effect/change was produced?)

Objective 1: Report the % participants reporting they gained knowledge.

Objective 2: Report the % participants reporting they will use the knowledge.

Objective 3: Report the % participants demonstrating increased knowledge

Objective 4: Report the % participants demonstrating increased skill

What methods and strategies of data collection will be utilized?

Feedback Form (participants)

School Site Visits/Observation Checklists (facilitators/participants)

Lesson Artifacts (facilitators/participants)

Simulation/Classroom Demonstration (facilitators/participants)

3. Increase the level of content and pedagogical mathematics knowledge of course participants.

Evidence, Assessment

We will use Quadrant 4: Did participants increase knowledge and skills? Guskey Level 2 of the Professional Development Accountability Model developed by Kathy Tucker (2003) for the ADE to measure the outcomes of this objective.

Quadrant 4 Objectives (What quality of effect/change was produced?)

Objective 1: Report the % participants reporting they gained knowledge

Objective 2: Report the % participants reporting they will use the knowledge

Objective 3: Report the % participants demonstrating increased knowledge

Objective 4: Report the % participants demonstrating increased skills

What methods and strategies of data collection will be utilized?

Feedback Form (participants)

School Site Visits/Observation Checklists (facilitators/participants)

Lesson Artifacts (facilitators/participants)

Simulation/Classroom Demonstration (facilitators/participants)

Administrator “Walk Through” observational reports

4. Increase the ability to implement the gained content and pedagogical knowledge understandings into classroom practice.

Evidence, Assessment

We will use Quadrant 4: Did participants effectively apply the new knowledge and skills?

Guskey Level 4 of the Professional Development Accountability Model developed by Kathy Tucker (2003) for the ADE to measure the outcomes of this objective.

Quadrant 4 Objectives (What quality of effect/change was produced?)

Objective 1: Report the % participants who report exploration and practice of new skills

Objective 2: Report the % participants who report implementation

Objective 3: Report the % participants who report adopting

Objective 4: Report the % participants who report participating in institutionalization

Objective 5: Report the % participants submitting artifacts demonstrating use of new skills

Objective 6: Report the % participants observed using new skills

Objective 7: Report the % time participants spend collaborating with other teachers about new knowledge and skills

What methods and strategies of data collection will be utilized?

Questionnaire (participants)

Lesson Plans, Curriculum Maps, Classroom Management Plans (participants)

Observation/Evaluation Instrument (facilitators/participants)

Administrator “Walk Through” observational reports

5. Improve student achievement in mathematics in the Coconino County.

Evidence, Assessment

We will use Quadrant 5: What is the impact on student learning? Guskey Level 5 of the Professional Development Accountability Model developed by Kathy Tucker (2003) for the ADE to measure the outcomes of this objective.

Quadrant 5 Objectives (What quality of effect/change was produced?)

- Objective 1: Report the % students increasing achievement levels
- Objective 2: Report the % students improving attendance
- Objective 3: Report the % decrease in dropout rate
- Objective 4: Report the % completing courses successfully
- Objective 5: Report the % of increased participation in math course offerings beyond minimum requirements

What methods and strategies of data collection will be utilized?

- Standardized test results, school/district assessments, teacher made tests, grades (facilitators/district administrators)
- Attendance records (facilitators/district administrators)
- Dropout records (facilitators/district administrators)
- Student transcripts (facilitators/district administrators)
- Questionnaires (facilitators/participants)
- Financial Records, Achievement Records (facilitators/district administrators/participants)

5. To support the notion that teachers involved in Lesson Study as a professional development model have a deeper, more substantive implementation of the content and pedagogical knowledge into classroom practice.

Evidence, Assessment

We will use Quadrant 4: Did participants effectively apply the new knowledge and skills?

Guskey Level 4 of the Professional Development Accountability Model developed by Kathy Tucker (2003) for the ADE to measure the outcomes of this objective.

Quadrant 4 Objectives (What quality of effect/change was produced?)

- Objective 1: Report the % participants who report exploration and practice of new skills
- Objective 2: Report the % participants who report implementation
- Objective 3: Report the % participants who report adopting
- Objective 4: Report the % participants who report participating in institutionalization
- Objective 5: Report the % participants submitting artifacts demonstrating use of new skills
- Objective 6: Report the % participants observed using new skills
- Objective 7: Report the % time participants spend collaborating with other teachers about new knowledge and skills

What methods and strategies of data collection will be utilized?

- Questionnaire (participants)
- Lesson Plans, Curriculum Maps, Classroom Management Plans (participants)
- Observation/Evaluation Instrument (facilitators/participants)

If this grant is extended into a third year, we would add the following project strategic goal. It is not reasonable to assume a significant impact in school climate can be accurately and precisely measured in one year. However, this is one of our overall project goals that we will constantly be working towards.

7. To make a positive impact on overall school climate.

Evidence, Assessment

We will use Quadrant 5 What is the impact on the organization? Guskey Level 3 of the Professional Development Accountability Model developed by Kathy Tucker (2003) for the ADE to measure the outcomes of this objective.

Quadrant 5 Objectives (What quality of effect/change was produced?)

Objective 1: Report the % improvement in climate

Objective 2: Report the % improvement in attitude towards change

Objective 3: Report the % participants reporting sufficient support for implementation of intervention

Objective 4: Report the % increase in funding to support intervention

What methods and strategies of data collection will be utilized?

Climate Survey (facilitators/district administrators/participants)

Financial Records (facilitators/district administrators/participants)

References Cited

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