

InTeGrate Project Evaluation Report

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Participants

This project evaluation report is based on self-report, pre- and post-evaluation data from four Middle Tennessee State University (MTSU) faculty participants. Two of these participants completed both pre- and post-project evaluation instruments. Three MTSU faculty members completed the pre-project evaluation instrument and three MTSU faculty members completed the post-project evaluation instrument.

Project Description

Two out of three MTSU faculty members viewed the project as accurately described during the recruitment process. However, one faculty participant recommended national InTeGrate to more accurately describe the nature of the implementation process and specify expectations for the recipient university, noting the required amount of time spent in managing the project far exceeded expectation and was without direct benefit to MTSU.

Project Goals, Process, and Concerns

One of the goals of this project was to augment the interaction between two groups of women students: Geoscience majors and participants in the MTSU Women in STEM Center. One faculty participant viewed the level of elicited interaction as limited at best. Another faculty participant noted project process took longer than expected. All faculty members completing the post-evaluation instrument stated the project was adequately implemented.

Faculty recommendations related to improving project process are as follows: 1) the InTeGrate faculty team meet once a month; 2) having access to a Geoscience resource person to provide instructional support for non-Geoscience faculty; 3) InTeGrate meetings be redesigned with goals and outcomes to specifically relate to InTeGrate project materials, project implementation, and student performance/evaluation issues; 4) structuring a project requiring collaboration between women Geoscience majors and participants in the MTSU Women in STEM Center; 5) implement stipend payments for project-participating students; 6) InTeGrate modules to be mastered first in domestic locations before their implementation at international sites; 7) clearer directions be provided to students (for what, was not specified), 8) more time be allowed for project implementation, and 9) require faculty participants to specify student outcomes per InTeGrate module.

On the pre-project evaluation instrument, faculty participants expressed the following concerns about the InTeGrate project: 1) negative student reaction, 2) limited opportunity beyond the

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Project Goals, Process, and Concerns (continued)

class for further engagement, 3) University committee response to student project proposals (because it is a first time situation), and 4) limited ability to cover other course topics because of the required time commitment to the InTeGrate modules. Two out of three faculty participants completing the post-project evaluation instrument viewed their concerns about the project as adequately addressed over the course of the project.

Project Modules/Curriculum

Two of the three faculty completing the pre-project evaluation instrument stated one reason for participating in the InTeGrate project was it provided a new means to enhance student engagement with science. All three faculty participants completing the post-project evaluation instrument viewed the modules as beneficial to students. The perceived benefits to students by faculty participants are as follows: 1) educational modules and online resources, 2) the connection made between the impact of natural disasters and civic resources, 3) learning how to use Excel for descriptive data analysis and visualization (graphs and charts), and 4) learning how to work as a team member. The faculty perceived benefit to students is also reflected in their willingness to retain all or some elements of the InTeGrate curriculum for future classes: all materials, the use of stakeholders, making extensive use of modules, and continuing project collaborations with other MTSU entities (i.e., MTSU Stormwater). Faculty participants also reported the InTeGrate curriculum required little pre-course preparation, liked that it was online with rubrics, and a plus having Dr. Mark Abolins be familiar with the curriculum.

Faculty participants' criticisms of the curriculum are as follows: 1) the required amount of preparation could be reduced; 2) skepticism that the InTeGrate modules connect to student needs and the assessment process does not illuminate the nature of this connection; 3) there were not enough points given for assigned work, 4) materials were hard to access online; 5) the font was too small and there was too much small print in handouts; and 6) the student evaluation method is dependent on written exam questions and does not have "clicker questions," which results in the instructor spending more time grading written exams as well as creating clicker questions.

While students were clearly seen as benefiting from the InTeGrate curriculum, one faculty participant noted InTeGrate students were unable to articulate accurate and clear responses to InTeGrate assessment questions; however, students could adequately articulate a project proposal. Another faculty participant viewed the InTeGrate curriculum materials as lacking an adequate assessment path to determine student response to InTeGrate curriculum.

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Faculty Participants

MTSU faculty members indicated they participated in the InTeGrate project for the following reasons: 1) financial gain; 2) career advancement/sustainability; 3) professional development (i.e., new methods of teaching, engaging students in science, connecting science and civic/public policy issues, and learning about other sciences), 4) peer collaboration, and 5) publication in peer-reviewed journal. The expected benefits of their participation were basically the same as their reasons for participating in the project.

The three faculty participants that completed the post-project evaluation instrument indicated the realized benefits from their participation as follows: 1) financial gain; 2) increase in student test scores, which resulted in more positive instructor and class evaluations; 3) learning about the impact of natural disasters on civic resources; 4) the diversity of final projects; 5) the positive impact the project had on students; 6) financial support of other University entities; and 7) student recruitment into the Geosciences. When asked which InTeGrate project elements delivered realized benefits, faculty participants indicated the following: 1) financial payments to instructors and other University entities, 2) the choice students had in their final projects, 3) their final PowerPoint project presentations, and 4) all project elements.

As related to faculty participants, difficulties in project management involved the following: 1) the amount of time required for project implementation (previously discussed), 2) necessary micromanaging of faculty participants (relates to #1), and 3) difficulty collecting assessment data from faculty (relates to #2).

Summary Statements

1. The InTeGrate modules were seen as beneficial to students by faculty participants and modules will be utilized past the life of this project in future non-science major classes.
2. Faculty participants viewed themselves as benefiting from their involvement in the InTeGrate project both financially and professionally.
3. While project implementation and process were problematic, faculty participants overall had a positive view of the overall project, its roll-out, on-going administration, and outcome.
4. Recommendations made by faculty were weighted towards improving the project process and tailoring the InTeGrate curriculum to the MTSU student population.
5. The nature of the student connection to and student response to InTeGrate curriculum modules is an unresolved issue as this project ends.
6. Clearer communication of national InTeGrate expectations for project implementation by the University are needed to develop an efficient as possible project roll-out and management strategy tailored to MTSU's student and faculty populations.