

Diversity Infusion Project Stage 2

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Overview of the Project:

We began the project in the fall of 2015 with 24 elementary education pre-service teacher candidates. The project continued through students' completion of student teacher. For this project we established the following goals (taken from the original diversity dispositions):

1. Demonstrates knowledge of cultural awareness and competence.
2. **Addresses needs of diverse learners through culturally relevant/sensitive curricula and pedagogies (science and math, in particular).**
3. Applies knowledge, theories, and principles of diversity and social justice.
4. Inquires into the culture of self and others.
5. Reflects on issues of diversity and majority culture.
6. Appropriately adjust behavior in response to diverse experiences.

We created a number of activities in the fall pedagogy course to consider issues of diversity – particularly in mathematics and science education - with students. We selected readings, had a semester long project with directed assignments, planned cross-section discussions, and required attendance at diversity focused campus events.

We examined a variety of evidence to evaluate our effectiveness, including:

- Diversity Action Plan (DAP) project – a new EDU412 semester-long course assignment
- TCODs (both semesters)
- Pre, mid, and post self-evaluations by students of their confidence in addressing needs of diverse students (across the year)
- Lessons and unit plans (both semesters)
- Disposition forms (both semesters)

Summary of findings:

We did not submit an IRB and therefore this report can only offer formative analysis, but will not generate any detailed analysis. We can report the following (data sources italicized) about each goal:

1. Demonstrates knowledge of cultural awareness and competence.
 - a. We anticipated students would need more background, but the shift of EDU 451 to junior year was influential. Our early assessments (*self-evaluations, DAP, written reflections, and class discussions*) revealed that students entered our class with more knowledge than in prior years when they took EDU 451 concurrent with EDU 412.
 - b. Students' *self-evaluations* revealed that they gained depth of understanding of the limits of their knowledge. We saw this in changes in their self-evaluations. Initially, students rated themselves confident in their knowledge, but then they began to see the limits of their knowledge, and finally they gained more confidence by the end of student teaching.
2. Addresses needs of diverse learners through culturally relevant/sensitive curricula and pedagogies (science and math, in particular).
 - a. Based on our *classroom observations, mid-term and final evaluation conferences, and students' planning*, we felt this goal has not been met. Students struggled to apply the knowledge they have about culturally relevant/sensitive/sustaining curricula.

- b. Moreover and not surprisingly, we noted that this is a systematic and larger professional issue. We had multiple conversations with students and experienced cooperating teachers (*mid-term and final conferences* as well as anecdotal experiences) where the belief was that diversity issues are ‘easier’ to address in social studies and literacy. At the extreme, there were some implicit beliefs (by both experienced teachers and novices) that culturally relevant/sensitive/sustaining curricula is not possible in mathematics instruction.
3. Applies knowledge, theories, and principles of diversity and social justice.
 - a. Students reflected on and applied some knowledge, theories, and principles of diversity and social justice (*DAP*). However, they ultimately struggled to make these same applications in their teaching (*lessons and unit plans*) and *classroom observations* showed that students’ abilities to apply knowledge, theories, and principles of diversity and social justice to teaching remains a fragile ability for students.
4. Inquires into the culture of self and others.
 - a. Students reported that this was a goal that they had confidence in their abilities (*self-evaluations*).
 - b. But, anecdotally from *observations and lesson plans*, there is a gap in this confidence. Their inquiries of self were somewhat bimodal – several unable to see their dominant culture as a culture and a few that recognized their own culture and how their culture influenced their teaching and children’s learning.
 - c. Some students actively inquired into cultures of their students. For example, two rode buses with their children to learn about students’ homes.
5. Reflects on issues of diversity and majority culture.
 - a. In the fall students reflected on issues of diversity and majority culture (*DAP*).
 - b. However, during student teaching, students’ reflection was not as pronounced. In comparing their *pre, mid, and post self-evaluation*, there is reason to believe students reflected on these issues.
6. Appropriately adjust behavior in response to diverse experiences.
 - a. As stated, *lessons, unit plans*, and observations (*TCODs*) lead to the conclusion that students struggle to apply knowledge to planning and instructional practice, particularly in math and science. Thus they did not seem to adjust their behavior as much as we hoped.

Implications for Future Use:

For the future, we intend to use these findings to inform our instruction. We have identified a few implications for our practice in terms of develop students’ application of culturally sustaining pedagogy in practice:

1. Begin earlier with more *discipline specific* readings and discussions of issues of culture and diversity. Students entered our course with more knowledge than we anticipated and seemed ready to go to the next step of thinking about the applications of that knowledge to mathematics and science teaching.
2. Consider and model applications of culturally sustaining pedagogy in mathematics and science teaching.
3. Create more challenges and expectations for students to apply culturally sustaining pedagogies in their own planning and teaching.