

Integrative Learning in Teacher Education Programs: A Pilot Study

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Abstract

The purpose of this study was to take a preliminary snapshot of education degree candidates' self-reporting of integrated learning in their programs of study. Students enrolled in education courses during Fall 2004 were asked to describe both formal (course content) and informal (experience-based) learning experiences that prepared them to be a good teacher. Responses were analyzed using the components of Academic Infusion Model (Mitchell, Williams, & Kuforiji, 2003) which was originally designed to analyze the incorporation of multicultural experiences into the mainstream curriculum on college campuses as well as P-12 settings. In general, this pilot study revealed a somewhat inconsistent pattern of what learning pre-service and in-service teachers reported that they integrated into their field-based programs.

Fostering students' abilities to integrate learning-across courses, over time, and between campus and community life- is one of the most important goals and challenges of higher education.

(Association of American Colleges and Universities, 2004, p.1)

While the opening statement is true for higher education in general, it is particularly so for teacher education programs. Upon graduation, certification, and acceptance of their first instructional positions, teacher candidates will have the responsibility of assisting their P-12 students in integrating learning. The college experiences of pre-service and in-service teachers, like their own P-12 educational

experiences, undoubtedly will have an impact upon what and how they teach. The purpose of this study was to take a preliminary snapshot of pre-service and in-service teacher education degree candidates' self-reporting of integrated learning in their programs of study.

In an earlier study, the researchers examined "academic infusion" as a model for the integration of multicultural studies into teacher education programs (Mitchell, Williams & Kuforiji, 2003). The components identified that would foster infusion included: diversity, introspection, reflection, empowerment, collaboration, and technology (DIRECT).

After reviewing *Integrating Learning: Mapping the Terrain* (Huber & Hutching, 2004), we deemed that Huber and Hutching's concept of integrative learning and the Academic Infusion Model (AIM) with the "DIRECT" components were comparable. As Huber and Hutchings point out, assessment of integrative learning is quite challenging:

... the challenges of assessing integrative learning run deep and will not be easily overcome. They are both technical and political, both theoretical and practical. They underline how important it is for educators to work together to build knowledge about the varieties of integrative learning, how they are best fostered and how they can be most helpfully assessed. (p.21)

Given this premise, the decision was made to utilize DIRECT as the assessment tool for the project. Table 1 outlines the definitions and indicators of each component in an academic setting.

Table 1. *AIM Components, Definitions and Indicators*

AIM Component	Definition	Indicator(s)
Diversity	Completely different; variety	<ul style="list-style-type: none">• Acknowledgement of different views• Individuality• Inclusion
Introspection	Looking inward	<ul style="list-style-type: none">• Self-examination of feelings, thoughts, and motives• Contemplating one's mental processes, thoughts, desires, and conduct
Reflection	Likeness; image; idea or remark resulting from careful thinking	<ul style="list-style-type: none">• Allow time to examine beliefs and attitudes• Assess group dynamics as well as product and/or performance
Empowerment	Enable, permit, authorize, commission	<ul style="list-style-type: none">• Open-ended assignments• Foster creativity and initiative
Collaboration	Working together	<ul style="list-style-type: none">• Communicating with other stakeholders• Cooperative learning experiences
Technology	The science of industrial arts; from the Greek meaning "systematic treatment"	<ul style="list-style-type: none">• Assistive technology• Telecommunications

Method

Forty-one students enrolled in education courses during Fall 2004 semester were asked to respond to the following prompt: "What have you learned this semester that has prepared you to be a good teacher? Consider formal (course content) and informal (experience-based) learning that occurred within this course as well as others in which you are enrolled." Students enrolled in two undergraduate education courses ($N = 31$) and one graduate education course ($N = 10$) were asked to respond to the prompt during a class session at the end of the semester. We reviewed the students' responses to determine which, if any, AIM

components (DIRECT) had been indicated. Each student response was read by two reviewers. To be counted in the frequency table, both reviewers had to identify the components.

Results

Table 2 summarizes the frequency at which each component was indicated. Both pre-service and in-service teachers included references to diversity and reflection at an 81 to 100% rate. Introspection was the least reported category for pre-service teachers in the study and collaboration for in-service teachers; 10% of each group cited those categories as integrative ones. In general,

this pilot study revealed a somewhat inconsistent pattern of self-reported learning

among pre-service and in-service teachers as to what they integrated into their programs.

Table 2. Frequency of *DIRECT* Component in Student Responses

AIM Component	Frequency	Pre-service (undergraduate %)	In-service (graduate %)
Diversity	35	25 (81%)	10 (100%)
Introspection	7	3 (10%)	4 (40%)
Reflection	38	28 (90%)	10 (100%)
Empowerment	18	9 (29%)	9 (90%)
Collaboration	19	18 (58%)	1 (10%)
Technology	14	4 (13%)	10 (100%)

Implications for Further Research

The study was undertaken as a preliminary investigation into the assessment of integrative learning for teacher candidates in undergraduate and graduate programs. Both groups reported diversity and reflection at a high frequency. Recent curriculum redesigns have emphasized those components along with integration of technology. Technology as well as empowerment were high frequency items for in-service teachers and comparatively low for pre-service ones. Within group analysis that will investigate years of experience (graduate) and amount of field experience completed to date (undergraduate) as well as age and gender factors might provide evidence to explain the discrepancy. Plans are underway to

repeat the study by expanding the study population to other education majors.

References

- Association of American Colleges and Universities. (2004). *A statement on integrative learning*. Retrieved June 20, 2006 from http://www.aacu.edu/org/integrative_learning
- Huber, M. T., & Hutching, P. (2004). *Integrating learning: Mapping the terrain*. Washington, D.C: American Association of Colleges and Universities and the Carnegie Foundation for the Advancement of Teaching.
- Mitchell, R., Williams, B., & Kuforiji, P. (Spring, 2003). Beyond diversity: An academic infusion model for teacher education. *Perspectives in Learning*, 4, 12-18.