Integrative Thinking



Showcase Yourself.

MT Engage Integrative Thinking and Reflection











How will integrative thinking and reflection impact your learning?



What is MT Engage?

The MT Engage QEP is focused on enhancing students' <u>academic engagement</u> by:

- 1. Providing students with <u>high impact</u> <u>pedagogies</u>
- 2. Challenging students to use <u>integrative</u> thinking and reflection across multiple contexts and educational experiences.

Integrative Thinking & Reflection

Students will be assessed on their ability to:

- 1) Make connections to relevant experiences
- 2) Make connections across academic disciplines
- 3) Adapt and apply information to new situations
- 4) Communicate information effectively
- 5) Reflect and self-assess

Modified from the AAC&U Integrative Thinking Value Rubric

How Learning Works 7 Research-Based Principles for Smart Teaching

- 1. Provide authentic, real world tasks (ch. 3)
- 2. Connect material to students' interests (ch. 3)
- 3. Give students opportunity to reflect and self-assess (ch. 3, ch. 7)
- 4. Give students opportunity to apply skills or knowledge in diverse contexts (ch. 4)

Student Motivation

"Students' motivation generates, directs, and sustains what they do to learn" (*How Learning Works*, p. 83).

"Expectancies and values interact to influence the **level of motivation** to engage in goal-directed behavior," (p. 70)

Establishing Value

Strategies to establish value:

- Provide authentic, real world tasks
 - Connect to experience
 - Adapt and apply information to new situations
- Show relevance to students' current academic lives
 - Make connections across courses / academic disciplines
- Demonstrate the relevance to future professional lives
 - Adapt and apply information to new situations
 - Reflect and self-assess

From: *How Learning Works*

Make Integrative Thinking a Course Outcome

Gives students:

- clear understanding of what is important in the course.
- clear understanding of expectations
- language for the process of integrative learning
- opportunity to self-assess

From: Leveraging the ePortfolio for Integrative Learning

Learning Outcome Examples

Integrative Learning Indicator	Example Learning Outcome
Connections to Experience	 Students will apply two theories learning from the course to their community-based learning. Students will demonstrate their understanding of Erikson's developmental theory by analyzing their developmental path in an autobiographical essay.
Connections to Discipline	 Students will describe how a historian would analyze the problem identified in the community learning project.
Transfer	 Students will assess the knowledge from PSY 101 and develop a learning plan for PSY 102 based on this assessment.
Reflection and Self- Assessment	 Students will advance their writing skills by reflecting on what they have learned from each writing assignment.

From: Leveraging the ePortfolio for Integrative Learning, p. 44

Backward Design

Three steps

- 1. Identify desired results
 - Write learning outcomes
- 2. Determine acceptable evidence
 - Assignments that allow students to demonstrate learning
- 3. Plan learning experiences and instruction

From: Wiggins and McTighe, 2005, as cited in *Leveraging the ePortfolio for Integrative Learning*, p. 44

Design Examples

Learning Outcome	Assignment	Activity
Students will describe how a historian would analyze the problem identified in the community learning project	Historical perspectives paper: 5 pages using historiography model	Reading, lectures, and discussions on historiography Smaller Assignments • Field notes • Community document reviews • Quizzes Class discussions: documentation and connection to historical concepts
Students will assess the knowledge from PSY 101 and develop a learning plan for this course (PSY 102) based on this assessment.	Learning paper plan	PSY 1010 concept quiz Missing "data" worksheet: • Concepts I didn't know • Where I can find information Class discussion: need for transfer of information from PSY 101 to PSY 102

From: Leveraging the ePortfolio for Integrative Learning, p. 45

Discussion at tables

- Share Integrative Learning Outcome examples (Currently in use or new ideas)
 - Determine which indicators they map to
 - 1) Make connections to relevant experiences
 - 2) Make connections across academic disciplines
 - 3) Adapt and apply information to new situations
 - 4) Communicate information effectively
 - 5) Reflect and self-assess
- Discuss assignments and activities that support the learning outcome

Table Reporting

Questions?



References

Ambrose, S.A., Bridges, M.W,. DiPietro, M., Lovett, M.C., Norman, M.K., (2010). How Learning Works: 7 Research Based Principles for Smart Teaching. Jossey-Bass: San Francisco, CA.

American Association of Colleges and Universities. (2004). Statement on Integrative Learning. Retrieved from http://evergreen.edu/washingtoncenter/docs/intlearning/statementintlearning.pdf

American Association of Colleges and Universities. (2009). Integrative and Applied Learning VALUE Rubric. Retrieved from http://www.AAC&U.org/value/rubrics/integrative-learning

Catalyst for Learning. ePortfolio Resources and Research. Retrieved from http://c2l.mcnrc.org/pedagogy/

Chickering, A. W., & Gamson, Z. F. (1987). Seven principles for good practice in undergraduate education. AAHE Bulletin, 39, 3-7.

Eynon. B., Gambino, L.M., & Torok, J. (2014). Reflective Learning. Retrieved from http://www.c2l.mcnrc.org/DP Reflection.pdf

Kuh, G. D. (2008). *High-impact educational practices: What they are, who has access to them, and why they matter.* Washington, DC: Association of American Colleges and Universities. Excerpted here: http://www.AAC&U.org/leap/hips and available in table format here: http://www.AAC&U.org/leap/documents/hip tables.pdf

Kuh, G. D. (2009). The National Survey of Student Engagement: Conceptual and empirical foundations. In R. M. Gonyea & G. D. Kuh (Eds.), *Using NSSE in institutional research* (pp. 5-20). San Francisco: Jossey-Bass

Kuh, G. D., Pace, R., & Vesper, N. (1997). The development of process indicators to estimate student gains associated with good practices in undergraduate education. Research in Higher Education, 38, 435-454.

Miller, R. L. & Butler, J. M. (2011). Outcomes associated with student engagement. In Miller, R. M., Amsel, E., Kowalewski, B. M., Beins, B. C., Keith, K. D., & Peden, B.F. (Eds.), Promoting student engagement, Vol. 1: Programs, techniques and opportunities. Society for the Teaching of Psychology, American Psychology Association.

Pascarella E. T., Cruce, T., Umbach, P. D., Wolniak, G. C., Kuh, G. D., Carini, R. M., Hayek, R. M., & Zhao, G. C. (2006). Institutional selectivity and good practices in undergraduate education: How strong is the link. Journal of Higher Education, 77, 251-285.

Pascarella, E. T., Palmer, B., Moye, M., & Pierson, C. T. (2001). Do diversity experiences influence the development of critical thinking? Journal of College Student Development, 42, 257-271.

National Survey of Student Engagement. (2015). High-impact practices. Retrieved from http://nsse.indiana.edu/html/high_impact_practices.cfm