Reflective & Integrative Learning

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Personally connecting with course material requires students to relate their understanding and experiences to the content at hand. Instructors emphasizing reflective and integrative learning motivate students to make connections between their learning and the world around them, reexamining their own beliefs and considering issues and ideas from others' perspectives. This document provides basic findings for the FSSE Scale Reflective & Integrative Learning.

Data Description

The Data from this brief come from the 2013-2015 administrations of the Faculty Survey of Student Engagement (FSSE). FSSE collects information annually at hundreds of four-year colleges and universities from faculty who teach at least one undergraduate course in the current academic year. The results provide information about faculty expectations for student engagement in educational practices that are empirically linked with student learning in development. Institutions use their data to identify aspects of the undergraduate experience that can be improved through changes in policy and practice. For more information, visit the FSSE website: **fsse.indiana.edu**. The sample of faculty in this data consist of 43,932 faculty responses from 327 four-year colleges and universities. In instances where institutions participated in more than one administration, the most recent year's data was used.

Item Information

Reflective & Integrative Learning consists of seven items on the FSSE survey. Information on these seven items can be found in Tables 1 and 2. Table 1 contains counts, means, standard deviations, and factor loadings for all seven items. Table 2 contains frequency percentages for all of the items' response options.

Table 1
Reflective & Integrative Learning Item Descriptives

Please answer the following questions based on *one particular* undergraduate course section you are teaching or have taught during the current school year. In your selected course section, how important is it to you that the typical student do the following?
Response options: 4=*Very Important*, 3=*Important*, 2=*Somewhat*, 1=*Not important*

	Count	Mean	Std. Dev.	Factor Loading
Combine ideas from different courses when completing assignments (*fRIintegrate*)	36,534	3.13	.871	.550
Connect his or her learning to societal problems or issues (*fRIsocietal*)	36,211	3.07	.975	.815
Include diverse perspectives (political, religious, racial/ethnic, gender, etc.) in course discussions or assignments (*fRIdiverse*)	36,310	2.86	1.099	.844
Examine the strengths and weaknesses of his or her own views on a topic or issue (*fRIownview*)	36,283	3.23	.928	.841
Try to better understand someone else's views by imagining how an issue looks from his or her perspective (*fRIperspect*)	36,190	3.11	1.006	.868

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Learn something that changes the way you understand an issue or concept (*fRInewview*)	36,214	3.47	.728	.729
Connect ideas from your courses to his or her prior experiences and knowledge (*fRIconnect*)	36,154	3.57	.660	.676

Table 2
Reflective & Integrative Learning Item Frequencies

Please answer the following questions based on *one particular* undergraduate course section you are teaching or have taught during the current school year. In your selected course section, how important is it to you that the typical student do the following?

	Very important (%)	Important (%)	Somewhat (%)	Not important (%)
Combine ideas from different courses when completing assignments (*fRIintegrate*)	40.7	36.8	17.8	4.8
Connect his or her learning to societal problems or issues (*fRIsocietal*)	42.2	31.1	17.8	8.9
Include diverse perspectives (political, religious, racial/ethnic, gender, etc.) in course discussions or assignments (*fRIdiverse*)	37.8	27.6	17.9	16.7
Examine the strengths and weaknesses of his or her own views on a topic or issue (*fRIownview*)	50.0	30.3	12.5	7.2
Try to better understand someone else's views by imagining how an issue looks from his or her perspective (*fRIperspect*)	46.6	28.7	14.3	10.4
Learn something that changes the way you understand an issue or concept (*fRInewview*)	58.8	31.5	7.5	2.2
Connect ideas from your courses to his or her prior experiences and knowledge (*fRIconnect*)	64.9	27.9	6.0	1.2

Scale Information

The individual items within Reflective & Integrative Learning are combined together to create the Reflective & Integrative Learning scale. First, the individual response are recoded to a 0 to 60 scale: Very important=4 is recoded to 60, Important=3 is recoded to 40, Somewhat=2 is recoded to 20, and Not important=1 is recoded to 0. Individual faculty responses on this 0-60 scale are then averaged together to create an aggregate scale score. Information on the Reflective & Integrative Learning Scale can be found in Table 3.

Table 3
Reflective & Integrative Learning Scale Descriptives

Count	Minimum	Maximum	Mean	Std. Dev.	Cronbach's Alpha	ICC
36,288	0	60	44.14	13.819	.880	.0385

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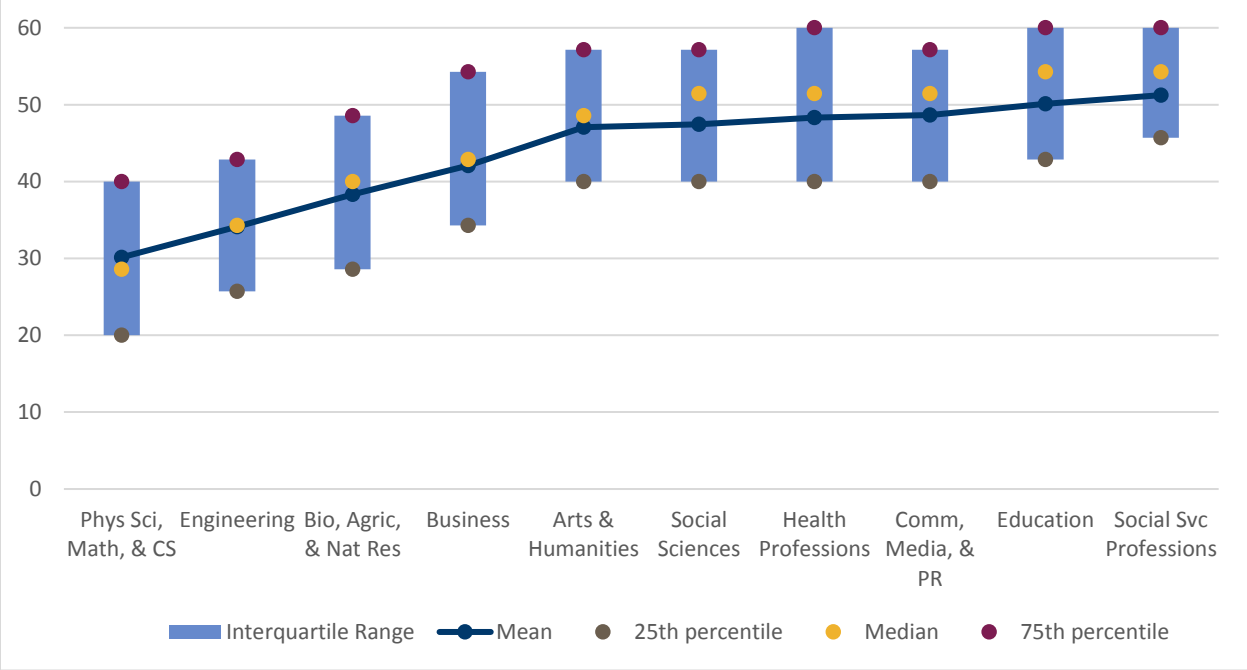
Disciplinary Differences

Reflective & Integrative Learning varies greatly by faculty's disciplinary area appointment. Faculty that display the greatest levels of importance for Reflective & Integrative Learning are in the fields of Social Service Professions; Education; and Communications, Media and Public Relations. Faculty that display the lowest levels of importance for Reflective & Integrative Learning are in the fields of Physical Sciences, Mathematics, and Computer Science; Engineering, and Biology, Agriculture, and Natural Resources. There is noticeable variation within disciplinary areas as well. For example, Social Service Professions faculty have a relatively small interquartile range suggesting that faculty in this field more consistently value Reflective & Integrative learning within their field. Other fields, such as Business, have a larger interquartile range suggesting that faculty in this field have a greater diversity in their levels of importance placed on aspects of Reflective & Integrative learning.

Figure 1
Reflective & Integrative Learning by Disciplinary Area



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Correlations

Table 4 presents correlations between Reflective & Integrative Learning and the remaining FSSE Scales. Faculty who place greater importance on aspects of Reflective & Integrative learning emphasize more Higher-Order Learning activities in their courses, feel their institution should increase aspects of student support, perceive that they display more effective teaching practices, and provide more opportunity for students to have diverse discussion with others in their courses.

Table 4
Correlations between Reflective & Integrative Learning and other FSSE scales ($p < .001$)

Higher-Order Learning (r = .508)	Collaborative Learning (r = .151)	Effective Teaching Practices (r = .319)
Quantitative Reasoning (r = .142)	Discussions with Divers Others (r = .318)	Quality of Interactions (r = .059)
Learning Strategies (r = .281)	Student-Faculty Interaction (r = .256)	Supportive Environment (r = .398)

Our Related Papers

For more information about FSSE and Reflective & Integrative Learning see the following publications, conference papers and presentations, research reports or other FSSE investigations focused on Reflective & Integrative Learning:

- National Survey of Student Engagement. (2015). Looking within FSSE results. *A Fresh Look at Student Engagement—Annual Results 2013*. Bloomington, IN Indiana Center for Postsecondary Research.
- Peck, L., Chiang, Y.C., & BrckaLorenz, A. (April 2015). Global perspectives in curricula and deep approaches to learning: Examining faculty practices for engagement. Paper presented at the American Educational Research Association Annual Meeting, Chicago, IL.
- National Survey of Student Engagement. (2014). Efforts to improve teaching pay off. *Bringing the Institution into Focus—Annual Results 2014*. Bloomington, IN: Indiana Center for Postsecondary Research.

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Predictors

Some types of faculty and types of courses are more or less likely to place greater importance on aspects of Reflective & Integrative Learning. Table 5 presents significant ($p < .001$) predictors increased importance placed on Reflective & Integrative Learning by faculty and course characteristics. Following Table 5 are figures representing the average Reflective & Integrative Learning differences by these faculty and course characteristics.

Table 5
Significant Faculty and Course Characteristics Predictors for Reflective & Integrative Learning

		Unstd. B	Std. Error
Course Division (*lower division as reference*)	Upper division	.145	.012
	Other division	.088	.025
Course format (*classroom instruction on-campus as reference*)	Classroom instruction at an auxiliary location	.204	.040
	Distance education	.098	.022
	Combination of classroom instruction and distance education	.144	.019
Tenured (*On tenure track but not tenured or not on tenure track as reference*)		-.114	.018
Woman/Female (*Man/Male as reference*)		.197	.011
Racial/Ethnic identification (*White as reference*)	Asian, Native Hawaiian, or other Pacific Islander	.135	.025
	Black or African American	.361	.024
	Hispanic or Latino	.289	.030
	American Indian, Alaska Native, other, multiracial	.213	.025
Gay, lesbian, bisexual, another sexual orientation, questioning or unsure (*Heterosexual as reference*)		.105	.025
Disciplinary area (*Arts & Humanities as reference*)	Biological Sciences, Agriculture, & Natural Resources	-.643	.022
	Physical Sciences, Mathematics, & Computer Science	-1.184	.019
	Business	-.444	.021
	Education	.103	.021
	Engineering	-.905	.030
	Social Service Professions	.192	.032
	All other disciplines	-.156	.024

Notes: All continuous variables were standardized before entry in the model so that unstandardized coefficients can be interpreted similar to effect sizes. The following faculty-level independent variables were included in the model but were not significant ($p < .001$): selected course size, faculty course load, faculty academic rank, teaching experience, earned doctorate, age, citizenship, faculty who preferred to not respond to the gender identity, racial/ethnic identification, or sexual orientation items; and faculty in Social Sciences; Communications, Media, and Public Relations; and Health Professions. The following institution-level independent variables were included in the model but were not significant ($p < .001$): undergraduate enrollment size, control, and Carnegie classification.

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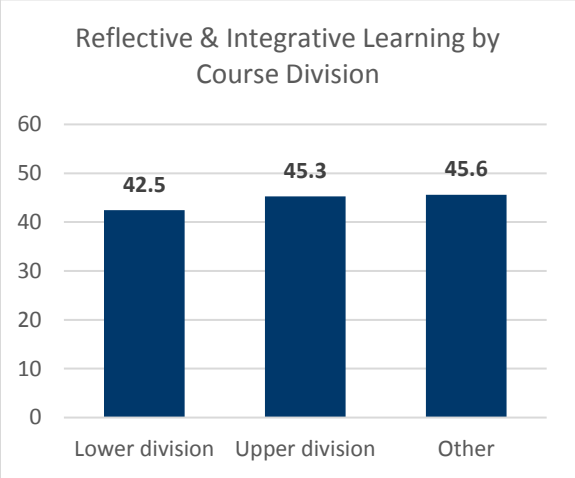
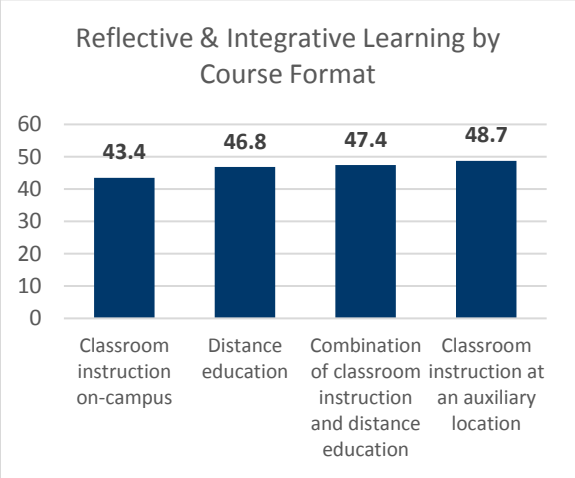
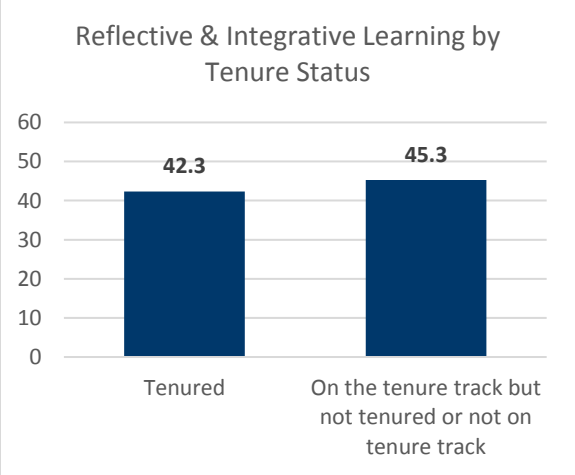
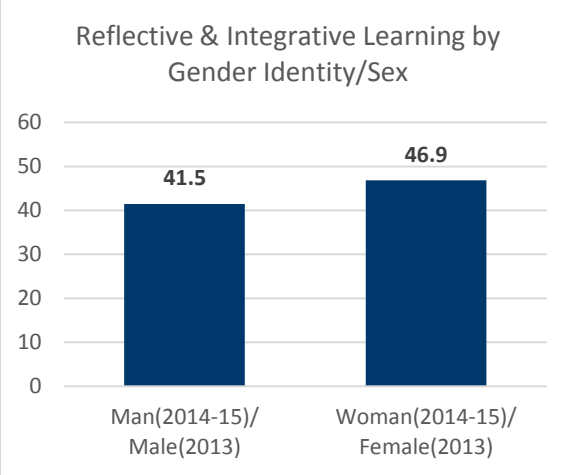
Predictor Follow-up

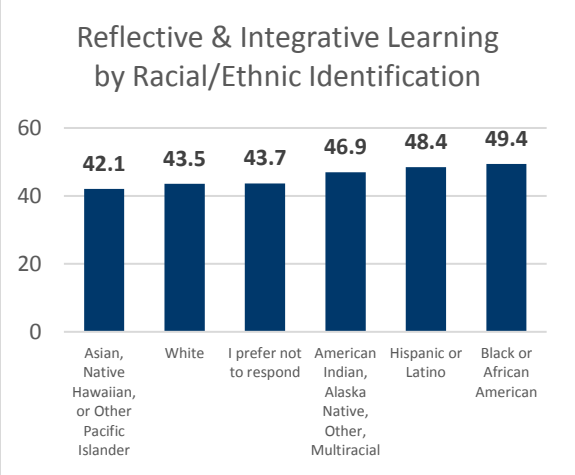
In the following figures represent the average Reflective & Integrative Learning scores by the faculty and course characteristics found to be predictive of Reflective & Integrative Learning in Table 5.











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