

Measuring the Diversity Inclusivity of College Courses

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Abstract Most studies of curricular diversity have focused on the effects of participation in diversity courses on student outcomes. Though the results have been positive, these studies have used limited measures of curricular diversity and there is a great need for a complementary body of research demonstrating what faculty and what types of courses are more likely to include diversity. This study relies on 12 diversity inclusivity items derived from a comprehensive model of how diversity is included into a course to investigate how much diversity is being included in collegiate courses and what predicts diversity inclusivity, as measured by two scales: diverse grounding and inclusive learning. The results, based on 7,101 responses from faculty participating in the 2007 Faculty Survey of Student Engagement, suggest that most faculty are including diversity in their courses in some way, but that women and faculty of color tend to include diversity to a greater extent than their colleagues. Also, courses taught in the soft fields are more likely to be inclusive of diversity.

Keywords Diversity inclusivity · College teaching · Faculty Survey of Student Engagement

Gurin et al. (2002) assert that “research on *whether* and *how* diversity might affect education is of crucial legal and practical importance” (p. 332, italics in original). In partial fulfillment of that call, a growing body of empirical research spanning course-level, institutional, and national data sets attests to the positive effects of curricular experiences with diversity on student cognitive and affective outcomes (Astin 1993; Bowman 2009a, b; Chang 2002; Denson and Chang 2009; Gurin et al. 2002; Hurtado et al. 1999; Nelson Laird 2005; Nelson Laird et al. 2005; Smith and Associates 1997). Though the results of these studies support the overall assertion that so called “diversity” courses encourage important skills, abilities, and attitudes, the work in this area leaves two issues unaddressed. First, the limited ways curricular diversity is measured actually belies a common understanding of

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the many ways diversity is included into courses. Second, outside of a couple of studies examining the amount faculty members emphasize diversity experiences (e.g., Kuh et al. 2004) or inclusion of diverse content into a course (e.g., Mayhew and Grunwald 2006), almost no research has investigated which faculty and which courses are more likely to be inclusive of diversity. So, while more work is needed to answer Gurin et al.'s (2002) call, the same urgency exists for scholarship examining whether and how factors, such as faculty characteristics and disciplinary context, shape diversity experiences, particularly curricular experiences with diversity.

Model of Course Inclusivity

In the empirical research that examines course or course-taking effects, what counts as curricular exposure to diversity varies. In some studies, a course that meets the general education diversity requirement is such a course (Chang 2002). In other studies, effects are examined for courses taught in particular departments, such as women's or ethnic studies (Astin 1993), or courses using a particular instructional method, such as intergroup dialogue (Gurin et al. 2004; Hurtado 2001b). Together, these studies amount to a shotgun approach to assessing the effects of curricular exposure to diversity. With such an approach, there are likely many courses that deal with diversity that do not get counted. For example, many courses that deal with diversity do not satisfy a general education requirement, fall under women's or ethnic studies, or use an intergroup dialogue approach. Further, though some studies go beyond simple dichotomies and compute a count of courses taken (e.g., Nelson Laird 2005), the counting approach also ignores qualitative distinctions in the ways courses include diversity.

To better understand the overall picture of what constitutes curricular experiences with diversity, I developed a model of diversity inclusivity rooted in a course planning model (Lattuca and Stark 2009) and drawing on models from areas such as multicultural education (e.g., Banks 2005; Sleeter and Grant 2008) and feminist theory/pedagogy (e.g., Maher and Tetrault 1994; McIntosh 1983). The model identifies nine elements of a course (purpose/goals, content, foundations/perspectives, learners, instructor(s), pedagogy, classroom environment, assessment/evaluation, and adjustment), as well as a diversity inclusivity continuum for each element (for a complete description of the model and its development, see Nelson Laird 2010). The content of a course, for example, can range from monocultural to multicultural and the assessment/evaluation methods in a course can range from "standardized" to methods sensitive to the diverse learning needs of the students. The model offers advantages over past methods for examining diversity in the curriculum. First, it moves researchers and practitioners away from trying to make simple determinations about what is and what is not a diversity course. Instead it offers multiple avenues for determining the diversity inclusivity of any course. Further, it undermines the use of common assumptions, like "all women's studies courses are diversity courses" and "there is no way a physics course can be a diversity course."

Operationalizing Diversity Inclusivity

In addition, the model described above can be used to develop methods for assessing the diversity inclusivity of courses. The current study relies on 12 survey items that address ways faculty include diversity into the 9 elements of their courses (see Table 1). A faculty

Table 1 Diversity inclusivity items

Item ^a		Related course element ^b
a	Students gain an understanding of how to connect their learning to societal problems or issues	Purpose/goals
b	Students develop skills necessary to work effectively with people from various cultural backgrounds	Purpose/goals
c	The course content emphasizes contributions to the field by people from multiple cultures	Content
d	The course covers topics from multiple theoretical perspectives	Foundations/ perspectives
e	You explore your own cultural and intellectual limitations as part of class preparation	Instructor(s)
f	You address your potential biases about course-related issues during class	Instructor(s)
g	You try to learn about student characteristics in order to improve class instruction	Learners
h	You vary your teaching methods to encourage the active participation of all students	Pedagogy
i	You work on creating a classroom atmosphere that is conducive to student learning	Classroom environment
j	You try to empower students through their class participation	Pedagogy
k	You evaluate student learning using multiple techniques	Assessment/evaluation
l	You adjust aspects of the course (e.g., pace, content, or assignments) based on student learning needs	Adjustment

^a Faculty members were asked how much each item happened in their course sections. Response options were 1 = Very little, 2 = Some, 3 = Quite a bit, and 4 = Very much

^b Course elements from Nelson Laird's (2010) model

member receiving these items would be asked to identify how much the things covered in each item happened in a particular course she/he taught. Faculty respond to each item on a 4-point scale ranging from “Very little” to “Very much.”

As constructed, each item was intended to capture the diversity inclusivity spectrum associated with each course element. For example, as noted before, the content of a course can range from monocultural—focusing exclusively on content from a single culture—to multicultural—focusing on content from multiple cultures. The content item listed in Table 1 (item c) was worded to reflect the upper end of the spectrum. Therefore, faculty who did this “very little” in their course were assumed to have courses more toward the monocultural end of the content spectrum and those that indicated they did this “Very much” were assumed to have courses that have multicultural content.

As faculty do not always consider each element of a course distinctly in their planning processes (Lattuca and Stark 2009), it was assumed that there would be patterns of response that would allow the 12 items in Table 1 to be collapsed. However, since faculty also display varying patterns of course planning (Lattuca and Stark 2009), no a priori underlying structure was assumed.

Predictors of Including Diversity into College Courses

No studies to date have modeled comprehensive measures of diversity inclusivity. That said, a small number of studies have examined predictors of how faculty included diversity

content or activities into their courses, such as including diverse course content or readings (Hurtado 2001a; Mayhew and Grunwald 2006), including feminist or minority perspectives (Milem 2001), emphasizing diversity experiences (Kuh et al. 2004; Umbach 2006), promoting student encounters with difference (Reason et al. 2010), structuring a course to understand and resolve diversity issues (Smart and Umbach 2007), and generally addressing diversity in one's teaching (Maruyama and Moreno 2000).

Collectively, these studies suggest that faculty characteristics, such as gender, race/ethnicity, age, years teaching, rank, employment status, political orientation, beliefs about diversity, perceptions of department and institutional commitment to diversity, and prior participation in diversity activities, influence faculty members' inclusion of diversity into some aspects of their courses. Those studies that reported findings for academic discipline (Milem 2001; Mayhew and Grunwald 2006; Smart and Umbach 2007; Umbach 2006), show it was a strong predictor, which is not a surprise given the large body of evidence indicating a disciplinary influence on teaching (Braxton and Hargens 1996; Smart et al. 2000). When included, course characteristics, such as time spent on student-centered activities and active teaching methods, influenced inclusion of diversity. Finally, a minority of the studies (Milem 2001; Reason et al. 2010; Umbach 2006) examined institutional influences, including institutional type, control, location, size, selectivity, racial/ethnic diversity of the institution, and institutional climate or culture (Milem 2001; Reason et al. 2010; Umbach 2006). Findings suggested that all but size were significant predictors of variation at the institution level. It is, however, important to note that the Reason et al. and Umbach studies, which employed multi-level modeling, show that most of the variation in their measures of diversity inclusion was at the individual level.

Purpose

Though considerable work has been done to *describe* how diversity (or multiculturalism) can work its way into courses (e.g., Banks 2005; Kitano 1997; Nelson Laird 2010; Schoem et al. 1993; Sleeter and Grant 2008; Warren 1998), little empirical work has been done to examine the extent to which diversity has worked its way into the curriculum.¹ The first purpose of this study was to fill that gap through an examination of how much faculty report including diversity into the different elements of their courses.

The second purpose of this study was to determine the factor structure of the 12 diversity inclusivity items. This part of the study was aimed at understanding the underlying patterns of faculty members' responses to the items and to determine if internally consistent scales could be derived from the 12 items. Such scales mark a first step toward developing assessment tools appropriate for researchers and those involved in college teaching to use in investigating and developing diversity inclusivity in college courses.

Finally, though evidence suggests that diversity courses are important experiences for students in terms of their learning and development (Chang 2002; Gurin et al. 2002; Nelson Laird 2005; Nelson Laird et al. 2005), there is much less evidence about the indicators that predict the amount a course is inclusive of diversity (Mayhew and Grunwald 2006) and no prior studies examining comprehensive measures of diversity inclusivity. Are women more likely to include diversity in their courses than men? What about tenure status, racial/ethnic

¹ A notable exception is the work of Humphreys (2000) examining how many institutions have adopted diversity requirements. However, by focusing on diversity requirements, she too took a narrow view of how diversity could be included into the curriculum.

group, or length of time teaching? Are upper division courses more inclusive of diversity than lower division courses? This study sought to fill this void by determining the degree faculty and course characteristics predict the diversity inclusivity scales derived in the second part of the study.

Methods

Data

The data for this study come from the 2007 administration of the Faculty Survey of Student Engagement (FSSE), an annual survey of faculty designed to compliment the National Survey of Student Engagement (NSSE). FSSE items ask faculty members about their expectations for students, their observations of student behaviors, how they spend their time on professional activities (e.g., teaching, advising, and research), and how they structure classroom activities and course assignments to encourage certain student behaviors and outcomes. FSSE offers participating institutions two survey options (for more information about the survey options visit fsse.iub.edu). Because this study focuses on aspects of particular courses, the data come from the 100 U.S. baccalaureate-granting colleges and universities that administered the course-based survey option, which asked faculty to pick a particular course taught during the 2006–2007 academic year and respond to the bulk of the questionnaire regarding that course. Response rates at the 100 institutions ranged from 22 to 92%, with an average response rate of 48%.

Sample

The sample for this study was narrowed by three factors: citizenship status, rank, and disciplinary area. Preliminary analysis suggested that within racial categories, the effect of foreign status likely varied. Rather than unpacking this interaction—a task beyond the scope of this study and complicated by low numbers of respondents in certain race-by-citizenship categories—I chose to narrow the sample to U.S. citizens. The sample was also narrowed to instructors, lecturers, and assistant, associate, and full professors. Respondents who indicated their rank as “Graduate teaching assistant” or “Other” were removed from the sample since few institutions intentionally sample either group. Finally, Biglan’s (1973a, b) categorization of academic fields along three dimensions (hard-soft, pure-applied, and life-non-life) was used to divide faculty into eight groups, as was done by Nelson Laird et al. (2008). Faculty who reported an academic field that did not fit one of the eight categories were also removed from the sample.

After narrowing and deletion for missing data, the sample for this study contained 7,101 faculty members. Slightly less than half (45%) of the respondents in the sample were female and four-fifths (80%) were white (3% Asian American, 3% African American, 3% Hispanic American, 3% other racial/ethnic minorities including American Indian and multiracial faculty, and 8% indicated a preference not to respond to the race/ethnicity item). Slightly more than 7 in 10 respondents (71%) had a doctorate. The median number of prior years of teaching was 15 and the median course load was 5 for the 2006–2007 academic year. Nearly all part-time faculty respondents held the rank of lecturer or instructor. Consequently, rank and employment status were used together to group faculty, with 12% part-time lecturers or instructors, 13% full-time lecturers or instructors, 24% assistant professors, 24% associate professors, and 27% full professors.

The courses faculty responded about were mostly upper division (56%), had between 21 and 50 students (51%, with 34% smaller courses and 15% larger courses), and did not fulfill a department or college-wide diversity requirement (88%). Also, of the courses faculty responded about, 8% were in hard-pure-life fields, 13% were in hard-pure-non-life fields, 2% were in hard-applied-life fields, 4% were in hard-applied-non-life fields, 13% were in soft-pure-life fields, 31% were in soft-pure-non-life fields, 13% were in soft-applied-life fields, and 16% were in soft-applied-non-life fields.

Measures and Analyses

The 12 diversity inclusivity items (see Table 1) were used for descriptive and factor analyses. These items were contained among a set of questions added to the end of the 2007 FSSE instrument for research and development purposes. Simple frequencies were examined to understand the distributions of faculty responses to the items. To understand the structure underlying these 12 items, an exploratory factor analysis was conducted using Principle Axis Factoring with a Varimax rotation.

The dependent measures for the regression analyses were the scales created by averaging faculty responses to each cluster of items resulting from the factor analysis. Each dependent measure was standardized prior to running the analyses. Consequently, the unstandardized coefficients for dichotomously measured independent variables, such as the gender and disciplinary area measures, are equivalent to standardized mean differences with pooled standard deviations between the indicated group and the comparison group (i.e. effect sizes). As Cohen et al. (2003) indicate, the standardized regression coefficients for dichotomously measured independent variables have little utility because of difficulty in interpreting the meaning of a standardized dichotomous measure. For the continuously measured independent variables in the model, standardized coefficients yield effect sizes.

Based on the few related studies in this area that used a multivariate approach (Kuh et al. 2004; Mayhew and Grunwald 2006; Milem 2001; Reason et al. 2010; Umbach 2006), each dependent measure was regressed on faculty characteristics (gender, race/ethnicity, highest degree earned, years of teaching experience, rank and employment status, course load, and perception of curriculum-wide diversity inclusivity). Like Milem (2001), I included a measure of faculty perceptions of the inclusiveness of the campus's curriculum. However, other measures of campus or department diversity related culture/climate, like those used by Mayhew and Grunwald (2006) and Milem (2001) were not available.

Since FSSE asks each faculty member to respond about a single course and some prior work shows connections to course-oriented covariates (Reason et al. 2010), the models also included course characteristics (disciplinary area, level, size, and diversity requirement status). Biglan's (1973a, b) categorization of disciplines, as operationalized for FSSE by Nelson Laird et al. (2008), was used to capture disciplinary area. This allowed for some comparison to Milem's (2001) study, which employed two of Biglan's dimensions (hard-soft and pure-applied) to divide faculty into four groups. Though others (Smart and Umbach 2007; Umbach 2006) have used Holland's (1997) theory and categories to examine aspects of how diversity is included into courses, two of Holland's six categories (realistic and conventional) have very few faculty, which led Smart and Umbach to eliminate the categories from their analyses. Relying on Biglan, all eight categories could be used. Though the hard-applied-life and hard-applied-non-life categories each had less than 5% of the sample, both had more than the 1% that Umbach (2006) reported for the realistic and conventional categories used in his study. See Appendix Table 5 for descriptions of all independent variables.

Institutional-level predictors were not employed in this study for two primary reasons. First, the focus of the modeling was on the faculty and course level. This study was not aimed at understanding how much variation exists between institutions and whether that variation can be predicted. Second, past studies with FSSE (Umbach 2006) and on other data sets (Reason et al. 2010) suggest that the bulk (~90% or more) of the variation in measures of diversity inclusivity will be at the faculty/course level. As with Astin and Denson's (2009) example, this study has sufficient sample size to suggest that partitioning the variance and/or including institution-level predictors would likely have little influence on the faculty/course level coefficients.

Limitations

This study has two primary limitations. First, institutions choose to use the FSSE and determine which faculty members are invited to participate. Consequently, self-selection limits the claims that can be made about the representativeness of the sample. However, based on several institutional characteristics (Carnegie type, control, region, and location), participating institutions represent a wide variety of U.S. colleges and universities (FSSE 2007). Though there were a disproportionate number of some types of institutions (e.g., public master's institutions), the overrepresented types of colleges and universities tend to enroll a larger number of undergraduates and employ a larger number of faculty. In addition, the faculty members who participated mirror the national population of faculty at baccalaureate-granting institutions along several characteristics (e.g., gender and disciplinary area).

Second, the courses at participating institutions were not sampled. Rather, faculty members chose the courses about which they responded. This approach, while it produced a wide variety of course types, makes it impossible to determine whether the courses in the study are representative of all courses at participating institutions, which may further limit the study's generalizability beyond the institutions and courses covered by the faculty in the sample.

Results

The results of this study suggest that diversity is being included in a wide array of courses across college curricula. Further, the items used to tap diversity inclusivity form two reliable scales that appear to focus on the diverse grounding of a course and how inclusive learning strategies are used. When regressed on faculty and courses characteristics, several key predictors of both scales were found, including gender, race/ethnicity, and disciplinary area.

Amount of Diversity Inclusivity

Table 2 presents the distribution of faculty responses to each of the 12 diversity inclusivity items. Somewhat strikingly, there are two distinct patterns of response that split the items into two groups of six. For items a through f, the distributions are relatively flat (a perfectly flat distribution would have 25% of faculty responding in each category). For items g through l, the distributions are skewed, with a large majority of faculty responding "Quite a bit" and "Very much."

Table 2 Distribution of faculty responses to the diversity inclusivity items

Item ^a	Very little (%)	Some (%)	Quite a bit (%)	Very much (%)
a Students gain an understanding of how to connect their learning to societal problems or issues	13	30	30	27
b Students develop skills necessary to work effectively with people from various cultural backgrounds	23	36	23	17
c The course content emphasizes contributions to the field by people from multiple cultures	30	31	21	19
d The course covers topics from multiple theoretical perspectives	15	27	31	27
e You explore your own cultural and intellectual limitations as part of class preparation	19	28	27	26
f You address your potential biases about course-related issues during class	20	38	26	16
g You try to learn about student characteristics in order to improve class instruction	5	23	35	37
h You vary your teaching methods to encourage the active participation of all students	2	22	37	38
i You work on creating a classroom atmosphere that is conducive to student learning	<1	4	29	67
j You try to empower students through their class participation	2	11	31	56
k You evaluate student learning using multiple techniques	4	20	34	42
l You adjust aspects of the course (e.g., pace, content, or assignments) based on student learning needs	4	22	33	41

^a Faculty members were asked how much each item happened in their course sections

On the first six items, those that focus on the purpose/goals, content, foundations/perspectives, and instructor(s) of a course, between 40 and 58% of faculty indicated that each item was done a lot (“Quite a bit” or “Very much”) in their courses. Under half of the faculty indicated that working with people of different cultures, emphasizing contributions from people from different cultures, and addressing one’s own biases about course-related issues during class (items b, c, and f) were done quite a bit or more. However, over half said understanding how to connect learning to societal problems, covering course topics from multiple theoretical positions, and exploring one’s own cultural biases (items a, d, and e) were done a lot.

For the last six items, those that cover the learners, pedagogy, the classroom environment, assessment/evaluation, and adjustment, at least 72% of the faculty indicated that each of the items was done a lot in their courses. Fully 96% of the respondents indicated that they work a lot on creating a classroom atmosphere that is conducive to learning. For those who have pushed for learner-centered teaching (e.g., Barr and Tagg 1995), faculty members’ responses to these items should be encouraging.

Across the 12 items, the distributions of faculty responses suggest that most faculty members are including diversity into their courses in some ways, at least a little. The distributions suggest a majority—sometimes a large majority—of faculty try to be inclusive about their students (learners), their pedagogy, the classroom environment, evaluation, and adjustment. Fewer faculty indicated being inclusive in the purpose and goals, content, foundations/perspectives, and in examining themselves, though still close to 50%. These two distinct patterns of distributions were not anticipated and, interestingly, the two groups of items noticeable in Table 2 appear again in the factor analysis discussed below.

Diversity Inclusivity Scales

Table 3 presents the results of the exploratory factor analysis (Principle Axis Factoring with a Varimax rotation; $KMO = 0.89$ and Bartlett's Test was significant, $p < 0.001$), which yielded two factors separating the items into groups of six, the same groups observable in Table 2. The factor loadings in Table 3 are from the rotated factor matrix. In the initial extraction, Factor 1 explained 41% of the variance and Factor 2 explained an additional 14%.

After rotation, the items most closely associated with Factor 1 (factor loadings >0.40), were used to create a scale I have called, diverse grounding. For each respondent, I used the mean of the six items as a scale score. The scale's reliability was good (Cronbach's $\alpha = 0.83$) and, as expected given the item distributions, the scale's mean was at the mid-point of the scale range (mean = 2.50, $sd = 0.77$). The items most closely associated with Factor 2 were similarly used to create a scale I have called, inclusive learning. This scale was equally reliable (Cronbach's $\alpha = 0.83$) but with a mean over 3 (mean = 3.24, $sd = 0.60$).

Given the original response options for each item, a scale score of 3 indicates that faculty averaged a response of "Quite a bit" for the items that made up the scale. Nearly

Table 3 Factor structure of the diversity inclusivity items ($N = 8,720$)

Factor groupings and items ^a	Factor 1	Factor 2
Diverse Grounding ($\alpha = 0.83$, mean = 2.50, $sd = 0.76$)		
a Students gain an understanding of how to connect their learning to societal problems or issues	0.67	0.15
b Students develop skills necessary to work effectively with people from various cultural backgrounds	0.71	0.24
c The course content emphasizes contributions to the field by people from multiple cultures	0.73	0.16
d The course covers topics from multiple theoretical perspectives	0.57	0.16
e You explore your own cultural and intellectual limitations as part of class preparation	0.66	0.33
f You address your potential biases about course-related issues during class	0.52	0.21
Inclusive Learning ($\alpha = 0.83$, mean = 3.24, $sd = 0.60$)		
g You try to learn about student characteristics in order to improve class instruction	0.35	0.55
h You vary your teaching methods to encourage the active participation of all students	0.20	0.73
i You work on creating a classroom atmosphere that is conducive to student learning	0.14	0.67
j You try to empower students through their class participation	0.23	0.72
k You evaluate student learning using multiple techniques	0.22	0.61
l You adjust aspects of the course (e.g., pace, content, or assignments) based on student learning needs	0.16	0.62

Note: The analysis used Principle Axis Factoring with a Varimax rotation. Factor loadings are from the rotated factor matrix. Factor 1 explained 41% of the variance and Factor 2 explained an additional 14%. For each respondent, the mean of the group of items most aligned (loading > 0.40) with a factor was used as a scale score. Scale reliabilities, means, and standard deviations are given in parentheses

^a Faculty members were asked how much each item happened in their course sections. Response options were 1 = Very little, 2 = Some, 3 = Quite a bit, and 4 = Very much

one-third (32%) of the faculty respondents averaged above 3 on the diverse grounding items, and fully 71% averaged above 3 on the inclusive learning items. These percentages are substantially higher than the 12% of the respondents that indicated that their courses met a diversity requirement.

Predictors of Diversity Inclusivity

The analyses run to determine the faculty and course characteristics that predict diversity inclusivity captured a significant amount of variance in the two dependent measures. The independent variables explained 30% of the variance in diverse grounding and 16% of the variance in inclusive learning. The bulk of the difference in explained variance is attributable to the relative predictive power of disciplinary area in the models. For diverse grounding, the entry of the disciplinary area variables explained 20% more variance than faculty characteristics alone, which explained about 7% of the variance. For inclusive learning, faculty characteristics alone explained 11% of the variance and disciplinary area only captured an additional 3% of the variability.

Table 4 contains the regression coefficients for both models. The sizeable predictors are generally significant in both models, though the relative size is often different between models. For example, women score higher than men on both dependent measures, but they score fifteen hundredths of a standard deviation higher on diverse grounding and two fifths of a standard deviation (0.41) higher on inclusive learning ($p < 0.001$ for both). In addition, faculty of color in all groups score higher than their white colleagues on both measures. Even faculty who preferred not to respond to the race question averaged higher scores on both measures than faculty who identified as white ($B = 0.12$, $p < 0.01$, for diverse grounding and $B = 0.07$, $p > 0.05$, for inclusive learning).

For the other faculty characteristics, the coefficients were generally quite small. Differences based on highest degree earned, years teaching, rank and employment status, and course load were all trivial in size and only rarely detectably different than zero. However, a faculty member's perception of the inclusivity of the undergraduate curriculum at her or his institution was a modest positive predictor of both dependent measures ($\beta = 0.13$, $p < 0.001$, for diverse grounding and $\beta = 0.12$, $p < 0.001$, for inclusive learning).

Disciplinary differences were apparent in both models, but the pattern of differences varied. On average, after controlling for the other variables in the model, faculty members in soft fields scored above their colleagues in the hard fields on diverse grounding. Soft-applied-life (e.g., education) faculty scored the highest on diverse grounding ($B = 0.18$, $p < 0.001$), a standard deviation and a quarter above the average for hard-pure-non-life (e.g. physics) faculty ($B = -1.07$, $p < 0.001$). Interestingly, the pure-applied dimension seems less important for diverse grounding than the life-non-life dimension. Faculty in the two groups of hard-life fields scored quite similarly as did those in hard-non-life fields and soft-life fields. The only place where the pure-applied difference was greater than four hundredths of a standard deviation was among the two groups of soft-non-life fields, with soft-applied-non-life (e.g., business administration) faculty scoring nearly three tenths of a standard deviation lower ($B = -0.29$, $p < 0.001$) than faculty in soft-pure-non-life fields (e.g., history).

For inclusive learning, the differences were generally smaller. After controlling for the other measures in the model, hard fields again generally scored lower than soft fields. Soft-pure-non-life faculty (e.g., history) scored the highest with hard-non-life fields scoring the

Table 4 Diversity inclusivity regression results ($N = 7,101$)

	Diverse grounding ^a			Inclusive learning ^a		
	<i>B</i>	SE of <i>B</i>	β	<i>B</i>	SE of <i>B</i>	β
Constant	-0.35	0.08	***	-0.69	0.08	***
Female	0.15	0.02	0.08***	0.41	0.02	0.21***
Race/ethnicity (White/European American = reference group)						
Asian American	0.15	0.06	0.02*	0.30	0.07	0.05***
Black/African American	0.32	0.06	0.06***	0.36	0.06	0.07***
Hispanic American	0.31	0.06	0.06***	0.27	0.06	0.05***
Other race/ethnicity	0.22	0.06	0.04***	0.16	0.06	0.03**
Preferred not to respond	0.12	0.04	0.03**	0.07	0.04	0.02
Doctorate earned	0.05	0.03	0.02	-0.10	0.03	-0.05**
Years teaching (in decades)	-0.01	0.01	-0.01	-0.04	0.01	-0.05**
Rank and employment status (part-time lecturer = reference group)						
Full-time lecturer	0.00	0.04	0.00	-0.06	0.05	-0.02
Assistant professor	0.00	0.04	0.00	0.03	0.04	0.01
Associate professor	-0.07	0.04	-0.03	-0.05	0.05	-0.02
Full professor	-0.02	0.04	-0.01	-0.06	0.05	-0.03
Course load	0.01	0.00	0.02	0.02	0.01	0.05***
Curricular diversity	0.09	0.01	0.13***	0.08	0.01	0.12***
Disciplinary area (soft-pure-non-life = reference group)						
Hard-pure-life	-0.69	0.04	0.19***	-0.37	0.04	-0.10***
Hard-pure-non-life	-1.07	0.03	0.35***	-0.39	0.04	-0.13***
Hard-applied-life	-0.70	0.08	0.09***	-0.20	0.09	-0.03*
Hard-applied-non-life	-1.05	0.06	0.20***	-0.39	0.06	-0.07***
Soft-pure-life	0.14	0.03	0.05***	-0.24	0.04	-0.08***
Soft-applied-life	0.18	0.03	0.06***	-0.11	0.04	-0.04**
Soft-applied-non-life	-0.29	0.03	-0.11***	-0.10	0.04	-0.04**
Course level (other = reference group)						
Upper division course	-0.04	0.05	-0.02	0.00	0.05	0.00
Lower division course	-0.13	0.05	-0.06**	-0.04	0.05	-0.02
Course size (more than 50 students = reference group)						
20 students or less	0.04	0.03	0.02	0.42	0.04	0.20***
21–50 students	0.06	0.03	0.03*	0.27	0.03	0.14***
Diversity requirement	0.53	0.03	0.17***	0.21	0.04	0.07***
Multiple R	0.55			0.40		
R-squared	0.30			0.16		
Standard Error	0.84			0.92		
F	116.90***			52.81***		

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

^a Dependent variable standardized prior to entry into the model

lowest ($B = -0.39$, $p < 0.001$ for both hard-pure-non-life and hard-applied-non-life). However, the life-non-life differences were not apparent and the highest scoring hard field (hard-applied-life) actually scored a bit above the lowest scoring soft field (soft-pure-life).

The differences by course division were modest for diverse grounding ($B = -0.13$, $p < 0.001$ for lower division courses) and trivial for inclusive learning. Course size mattered only for inclusive learning—scale scores for faculty teaching small courses averaged two-fifths of a standard deviation higher than large courses ($B = 0.42$, $p < 0.001$) and medium sized courses fell in between ($B = 0.27$, $p < 0.001$). Finally, and not surprisingly, the difference between courses that met a diversity requirement and those that did not was relatively large for diverse grounding ($B = 0.53$, $p < 0.001$) and modest in size for inclusive learning ($B = 0.21$, $p < 0.001$).

Discussion and Implications

Much of the dialogue about including diversity into the curriculum has focused on the inclusion of course content that is from or about non-Western, non-Classic, or non-privileged peoples and perspectives (Nelson Laird 2010). Interestingly, a clear majority (60%) of the faculty respondents in this study suggested that their course content emphasized contributions from multiple cultures “Very little” or “Some.” Depending on one’s perspective, this could be alarmingly high or low. In my own judgment, it is a reasonable percentage. There are many courses where infusing diverse content, even if possible, is seen as difficult, unnecessary, or—for some—undesirable. Think here of many introductory courses, courses from the sciences, or courses about design or research methods. One has to be creative and often buck the norms within one’s field to find ways to bring diversity into the content of such courses.

As the results of this study suggest, however, in focusing on content, one risks overlooking other important ways diversity is worked into collegiate courses. In addition, too much focus on content may unintentionally exclude faculty who feel diverse content is for someone else to deal with. It might also lead researchers to underestimate the effects of curricular experiences with diversity. In my own efforts to understand what constituted a diversity course, I quickly realized, based on the work of many others (e.g., Banks 2005; Kitano 1997; Lattuca and Stark 2009; Warren 1998), that diversity could be included into each aspect of a course and, consequently, nearly every course was—or could become—a diversity course to some degree (Nelson Laird 2010).

A simple finding of the current study is that diversity is being included in many courses across undergraduate curricula through the eight elements of a course other than content. For example, over half of the faculty respondents in this study indicated that students in their courses gained a lot in terms of understanding how to connect their learning to societal problems or issues and that their courses drew a lot on multiple perspectives. Over 80% of the respondents indicated that they did a lot to create a classroom atmosphere conducive to learning and tried a lot to empower students through class participation. Such high levels of inclusivity were not expected.

In fact, it seems faculty are near a broad consensus on the importance and need to include diversity in the ways captured by the inclusive learning items—almost three-fourths of faculty respondents averaged 3 or above (out of 4) on that scale. With such apparent buy-in, one can question whether educators should reorient conversations about including diversity into courses by focusing first on the things connected to inclusive learning. One potential strategy for faculty development in this area would be to start conversations with faculty members where there is most agreement: fostering a classroom atmosphere conducive to learning. Then move progressively toward areas where fewer faculty members include diversity: from varying teaching methods to using multiple

theoretical perspectives to including diverse content. If done well, such a conversation would highlight good practice, encourage faculty to recognize what they do already, highlight areas where faculty can push themselves to improve, and leave open the possibility that certain areas of one's course may not need to include diversity.

For diagnostic purposes, it would be simple to develop a tool for faculty members to estimate the diversity inclusivity of any of their own courses from the items in this study. Such a tool could inform the type of conversation outlined above and could be used by individual faculty members examining their own courses or in multiple types of faculty development settings (e.g., workshops or one-on-one consultations).

As they are currently, the 12 diversity inclusivity items combine to form two reliable scales. To build from the work in this study, researchers should consider expanding beyond the 12-items as well as trying to develop measures for students that would give a similarly comprehensive view of the inclusivity of the courses students take. For both the student and faculty measures, it will be important to investigate the validity of the resulting scales.

The two scales created from the 12 diversity inclusivity items in this study were useful for two reasons. First, the item groupings themselves highlighted which aspects of a course seem to move toward diversity inclusivity together. The diverse grounding items illustrate that when faculty have more inclusive content, they are also likely to be inclusive in terms of their course goals, the theoretical underpinnings of the course, and their level of examining their own biases and limitations. For inclusive learning, as faculty are more inclusive in terms of their classroom atmosphere, they are also likely attempting to be inclusive in terms of understanding their students, using teaching methods that allow for different types of learning, using multiple types of evaluation, making adjustments based on student needs, and empowering students in class. Though not developed with this in mind, the group of inclusive learning items highlights how pedagogies from diversity and multicultural perspectives (e.g., Freire 1970, 1998; Giroux 1997; Maher and Tetrault 1994)—those that informed the development of the diversity inclusivity model—share a great deal with those informed by a student development approach (e.g., Baxter Magolda 1999). Although some work has been done to illustrate how adopting a multicultural perspective may require a certain level of development (King and Shuford 1996), more work is needed to illustrate how diversity informed pedagogies align with those based on developmental models and perspectives.

The two scales also proved useful in that they allowed for a succinct examination of what predicts diversity inclusivity. Not surprisingly, because the findings mirror previous results from FSSE (Kuh et al. 2004; Umbach 2006) as well as other studies (Hurtado 2001a; Milem 2001; Reason et al. 2010), women and faculty of color reported higher levels of diverse grounding and inclusive learning in their courses compared to their male and white colleagues, respectively, even after controlling for other variables in the model. Though whites and males may be less likely to include diversity into their courses in these ways due to socialization and cultural norms, there is nothing inherent in their gender or race/ethnicity that prevents including diversity into their courses. In fact, if evidence continues to suggest that including diversity into courses has important educational benefits for students (Bowman 2009a, b; Chang 2002; Denson and Chang 2009; Gurin et al. 2002; Nelson Laird 2005), ways need to be used to challenge or undo that socialization and establish different prevailing cultural norms.

Other faculty characteristics had trivial effects on both measures of diversity inclusivity, with the exception of faculty perceptions of how much the undergraduate curriculum at their institution included diversity. Two possible explanations exist for the latter. It may be that the more diverse the curriculum on campus, the more faculty feel pressure to include

diversity into their own courses. Alternatively, the more faculty members include diversity in their own courses, the more they are likely to see the overall curriculum as inclusive. Sorting out the direction of this effect may prove extremely difficult, but is nonetheless worth further study.

An influential course characteristic in both models was disciplinary area. While the results suggest that soft disciplines are generally more likely to use inclusive learning, the differences were not as large as with diverse grounding, which is much more prevalent in soft fields, particularly the soft-life fields. Soft fields emphasizing diversity inclusivity more than hard fields corroborates Milem's (2001) findings and many years of research showing faculty from fields where there is substantial agreement about knowledge and methods of inquiry (hard) tend to teach less actively and are less likely to include multiple or critical perspectives or deep approaches to learning in their courses than those in fields where there is not as much consensus (Braxton and Hargens 1996; Braxton et al. 1998; Gaff and Wilson 1971; Lattuca and Stark 1994; Nelson Laird et al. 2008). Though there is room to argue that diverse grounding is not necessarily anathema to the other disciplinary areas, it may be more practical and productive in those fields to reshape the conversation about diversity in the curriculum by focusing first on inclusive learning, as suggested earlier.

The life-non-life differences observed in this study for diverse grounding suggest that those studying life systems are more likely to include diversity-oriented goals, content, and perspectives as well as examine themselves as instructors than their colleagues whose fields focus on inanimate objects (non-life). Though no prior research suggested this result (in fact, Milem 2001, missed testing this result by omitting the life-non-life dimension), it is logical in that life fields are much more likely to deal with human diversity as a part of their content than non-life fields.

Relatively large differences in inclusive learning were observed between courses of different sizes (course size did not seem to impact diverse grounding)—in general, the larger the course, the less it focused on inclusive learning. Though this result certainly adds to the concern over large courses (McKeachie 1980; Kokkelenberg et al. 2008), some suggest that such results are not preordained and that faculty can take steps in their larger courses to be learner-centered and promote active participation and engagement among their students (see Stanley and Porter 2002).

Finally, the results suggest that courses that fulfill a diversity requirement include diversity to a greater extent than courses that do not fulfill such requirements. The effect on diverse grounding was sizeable and the effect on inclusive learning was modest, but what was surprising about these effects was that they were not larger, further suggesting that diversity inclusiveness is happening in many courses that do not meet such a requirement. This highlights the need for researchers to be careful when examining the effects of curricular diversity on students. For example, studies that examine the effects of diversity requirements (e.g., Chang 2002) may only be conservative estimates of the effects of curricular exposure to diversity since many non-required courses likely include diversity as much as or more than those requirements. One approach to demonstrating this underestimation would be to compare the effect of diversity requirements against courses that average above a 3 on both the diverse grounding and inclusive learning scales.

Conclusion

As a largely exploratory study, the investigation reported here highlights that diversity is being included in many, many courses. Courses in women's and ethnic studies, education,

social work, and other fields often considered to be the locations of most diversity courses are clearly not the only places one can find diversity inclusivity. Courses inclusive of diversity also do not all meet diversity requirements and, further, an individual course may be inclusive in some aspects and lack inclusivity in others. This study also shows that many, many faculty bring diversity into their courses through an inclusive learning approach, which combines knowing student needs, creating a classroom environment conducive to learning, and varying teaching and evaluation methods to reach different types of students.

These findings highlight the need for researchers and practitioners to find more nuanced ways to discuss what it means for a course to be a “diversity” course. The 12 items used in this study to create the dependent measures are a first step toward tapping a nuanced understanding of how faculty include diversity into their courses. Certainly more items and alternate approaches are worth exploring. Further, a similarly nuanced approach is needed to understand student participation in curricular experiences with diversity and developing a set of items students can respond to should be a priority for researchers in this area as well as comparing the effects of the resulting measures of curricular exposure to diversity to those used in the past.

Appendix

See Table 5

Table 5 Independent Variables

Name	Description
Faculty characteristics	
Female	0 = Male, 1 = Female
Race/ethnicity ^a	White/European American ^b , Asian/Asian American, Black/African American, Hispanic American, Other (including American Indian and multiracial faculty), Preferred not to respond
Doctorate earned	0 = No doctorate, 1 = Doctorate earned
Years teaching (in decades)	Continuous variable
Rank and employment status ^a	Part-time lecturer/instructor ^b , Full-time lecturer/instructor, Assistant professor, Associate professor, Full professor
Course load	Continuous variable
Perceived institutional curricular diversity	1 = Not at all inclusive to 7 = Totally inclusive
Course characteristics	
Disciplinary area ^{a,c}	Hard-pure-life, Hard-pure-non-life, Hard-applied-life, Hard-applied-non-life, Soft-pure-life, Soft-pure-non-life ^b , Soft-applied-life, Soft-applied-non-life
Upper division course	0 = Lower division, 1 = Upper division
Course size ^a	20 students or less, 21–50 students, More than 50 students ^b
Diversity requirement	0 = Not required, 1 = Department or college requirement

^a Dichotomous indicator created for each sub-group (0 = not in sub-group, 1 = in sub-group)

^b Reference group

^c Categories from Biglan (1973a, b) and assignment to categories done as in Nelson Laird et al. (2008)

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