

Research Briefs from the Office of Research and Planning

The Relationship between Learning Communities and Completion, Success, and Term-to-Term Retention for Fall 2008 and Spring 2009
Sociology and English Reading Learning Communities

Overview: This brief illustrates the findings from research examining the relationship between participating in the English and Sociology Dynamic Cultures Learning Community in Fall 2008 and Spring 2009 to completion, success, retention, retention to the next highest level English course (i.e. course persistence), and success in the next highest level English course (i.e. course improvement).

Summary of Findings (see Figure 1 and Table 1):

- Students in the English and Sociology Dynamic Cultures Learning Community were statistically significantly ($p < .001$) and substantially ($ES = .37$) **more** likely to be successful in their course (85%) than students in a stand-A-lone course (68%)
- Students in the English and Sociology Dynamic Cultures Learning Community were statistically significantly ($p < .05$) and substantially ($ES = .23$) **more** likely to be retained to the subsequent primary term (70%) than students in a stand-A-lone course (58%)

Figure 1: Stand-A-Lone and Learning Community Completion, Success, Term Retention, Course Retention, and Course Improvement for the English and Sociology Learning Communities in Fall 2008 and Spring 2009.

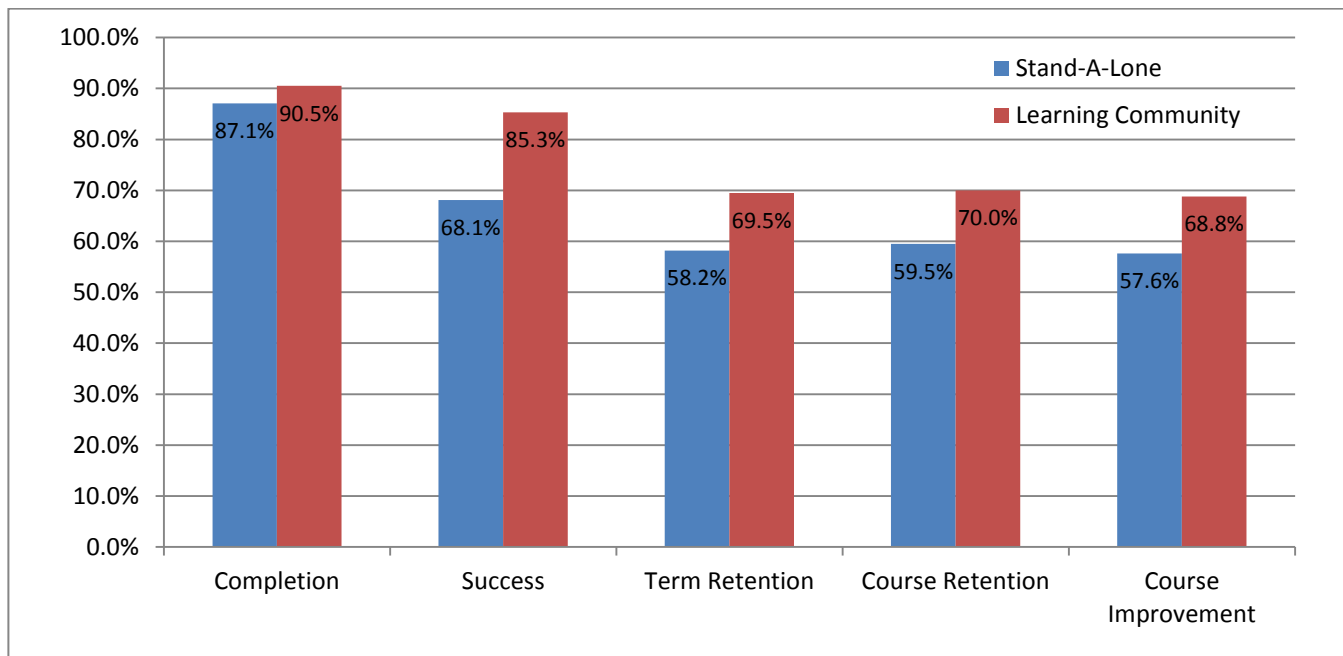


Table 1: Stand-A-Lone and Learning Community Completion, Success, Term Retention, Course Retention, and Course Improvement Rate with the Effect Size and P-Values for the English and Sociology Learning Communities in Fall 2008 and Spring 2009.

Outcome by Course	Stand-A-Lone (Instructor)			Learning Community			Effect Size	P-Value
	#	N	%	#	N	%	ES	
ENGL-015								
Completion	817	947	86.3	42	48	87.5	.04	.804
Success	622	947	65.7	40	48	83.3	.37	.002**
Retention to ENGL-101	370	622	59.5	28	40	70.0	.21	.167
Success in ENGL-101	262	370	70.8	25	28	89.3	.41	.004**
Term Retention	545	947	57.6	33	48	68.8	.23	.107
SOC-100*								
Completion	220	243	90.5	44	47	93.6	.11	.449
Success	188	243	77.4	41	47	87.2	.24	.080
Term Retention	148	243	60.9	33	47	70.2	.19	.212
Total								
Completion	1,037	1,190	87.1	86	95	90.5	.10	.286
Success	810	1,190	68.1	81	95	85.3	.37	< .001**
Term Retention	693	1,190	58.2	66	95	69.5	.23	.024**

*The Stand-A-Lone SOC-100 section was taught by the same instructor as the learning community section.

**The difference between the comparison and LC groups is statistically significant (i.e. $p < .05$).

Methodology: To examine the relationship between students in Learning Communities (LC) and student performance, students in the English and Sociology LCs were compared to students in a stand-A-lone course taught by the same instructor in the same term, when possible. If it wasn't possible to control for instructor, student performance in the LC was compared to all other students enrolled in the same course for that term. The sociology comparison controlled for instructor and term, but controlling for instructor was not possible with the English LC.

Grade on record (GOR) refers to one of the following grades: A, B, C, D, F, CR/P, NC/NP, I, or W. Retention rate is defined as the number of A, B, C, D, F, CR/P, NC/NP, or I grades divided by the number of GOR. Success rate is defined as the number of A, B, C, or CR/P grades divided by the number of grades on record. Term retention (i.e. formally persistence) rate is defined as the number of students who earned a GOR in the semester in which they participated in the LC and who also earned a GOR in the subsequent primary term. Course Retention (i.e. formally persistence) rate is defined as the number of successful students who completed the course and who also earned a GOR in the next highest level course in that discipline. The course improvement rate refers to students who successfully completed the initial course (i.e. ENGL-015), earned a GOR in the next highest level course (i.e. ENGL-101), and who successfully completed the next highest level course (i.e. ENGL-101).

The effect size statistic was used to indicate the size of the difference on completion, success, term retention, course retention, and course improvement between those who did and did not participate in a learning community. One method of interpreting effect size was developed by Jacob Cohen. Jacob Cohen defined "small," "medium," and "large" effect sizes. He explained that an effect size of .20 can be considered small, an effect size of .50 can be considered medium, and an effect size of .80 can be considered large. An effect size is considered to be meaningful if it is .20 or higher. Equally important, if the lower end of the effect size confidence interval (CI) is above .20 it indicates that there is a 95% probability that the program or characteristic has a meaningful impact on the outcome. It is important to mention that the number of students in each group does not influence

Effect Size; whereas, when statistical significance is calculated, the number of students in each group does influence the significance level (i.e. "p" value being lower than .05).

Limitations

One limitation is that it was not possible to control for instructor in the English comparison courses. Accordingly, the relationship between students participating in a LC and those not participating in a LC may be due to instructor variation for English. Future research can control for this by using meta-analysis techniques and creating a moderator variable that identifies which type of comparison group was used in the comparison.

References:

Tinto, V. (2000). *Learning better together: The impact of learning communities on student success in higher education*. Journal of Institutional Research, 9, 48-53.