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The Relationship between Learning Communities and Retention, Success, and Persistence from Spring 2007 to Spring 2009 for English, Math, and Reading Learning Communities

Overview: A learning community is defined as a purposeful restructuring of curriculum to link together courses or coursework so that students find greater coherence in what they are learning and greater interaction with faculty and peers. According to Tinto (2000, pp. 48), "...learning communities seek to restructure the very classrooms in which students find themselves and alter the way students experience both the curriculum and learning within those classrooms."

The current learning community (LC) initiative at Crafton Hills College (CHC) began with faculty attending the Kellogg Institute in 2006, which was funded by a Title V Grant. The first LC was in spring 2007. The theme of the LC was Southern California Living and combined a pre-collegiate reading class (READ-078, Advanced Reading, 1 level below transfer reading) with a pre-collegiate writing class (ENGL-015, Preparation for College Writing; 1 level below transfer English). The LC used the local Southern California environment as the central focus of the reading and writing assignments. LC at Crafton from Spring 2007 to Spring 2009 had the same approach and created assignments around the following themes: Southern California Living, the Informed College Student, Communicating with Communities, Telling our Stories, Problems in Democracy, the First-Year Readiness Experience (FYRE) House, Living in the i.e., Our Dynamic Cultures, and Self & Society.

This brief illustrates the findings from research examining the relationship between learning communities and retention, success, persistence to the next primary term (i.e. term persistence), persistence to the next highest level course (i.e. course persistence), and success in the next highest level course (i.e. course improvement) for English, math, and reading learning communities only.

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

- Students in an English, math, or reading course learning community were statistically significantly ($p < .01$) and substantially ($ES = .18$) **more** likely to be retained (92%) than students in a stand-A-lone course (86%)
- Students in an English, math, or reading course learning community were statistically significantly ($p < .01$) and substantially ($ES = .19$) **more** likely to successfully complete the course (74%) than students in a stand-A-lone course (65%)
- Students in an English, math, or reading course learning community were statistically significantly ($p < .01$) and substantially ($ES = .19$) **more** likely to persist to the subsequent primary term (76%) than students in a stand-A-lone course (67%)
- Students in an English, math, or reading course learning community were **more** likely to persist to the next highest course level in the discipline (66%) than students in a stand-A-lone course (63%)
- Students who successfully completed an English, math, or reading learning community course and enrolled in the next highest level course were **less** likely to successfully complete the next highest course level in the discipline (65%) than students who successfully completed the stand-A-lone course and enrolled in the next highest course level in the discipline (71%)

Figure 1: Stand-A-Lone and Learning Community Retention, Success, Term Persistence, Course Persistence, and Course Improvement for all English, Math, and Reading Learning Communities from Spring 2007 to Spring 2009.

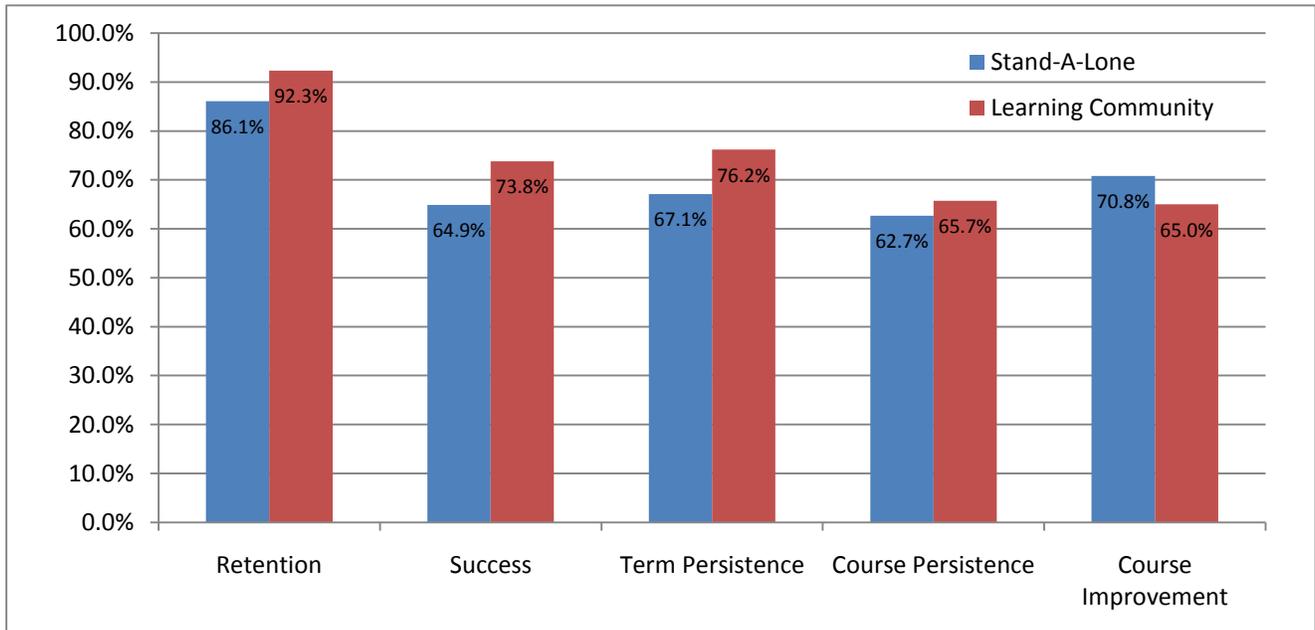


Table 1: Stand-A-Lone and Learning Community Success, Retention, Term Persistence, Course Persistence, and Course Improvement Effect Size, 95% Confidence Intervals, and P-Values for all English, Math, and Reading Learning Communities from Spring 2007 to Spring 2009.

Aggregated Outcomes	Stand-A-Lone (Instructor)			Learning Community			Effect Size & 95% CI Lower & Upper ES			P-Value
	#	N	%	#	N	%	ES	Lower	Upper	
Retention	2,039	2,368	86.1	299	324	92.3	0.18	0.06	0.29	.002
Success	1,536	2,368	64.9	239	324	73.8	0.19	0.07	0.31	.002
Term Persistence	1,590	2,368	67.1	247	324	76.2	0.19	0.08	0.31	.001
Course Persistence	969	1,545	62.7	163	248	65.7	0.06	-0.07	0.20	.362
Course Improvement	686	969	70.8	106	163	65.0	-0.13	-0.30	0.04	.153

Note. Only includes English, reading, and math courses where students could persist to the next highest level course in the sequence.

Methodology: To examine the relationship between students in Learning Communities (LC) and student performance, students in LC 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. Approximately half of the comparison courses controlled for both instructor and term. Specifically, of the 12 LC examined, 5 (42%) controlled for both instructor and term. The twelve LC consisted of 9 (75%) English LC, 1 (8%) math LC, and 2 (17%) reading 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 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 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 initial course, earned a GOR in the next highest level course in that discipline, and who successfully completed the next highest level course in the discipline.

The effect size statistic was used to indicate the size of the difference on retention, success, term persistence, course persistence, 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 instructor was not controlled for in all of the comparison courses. Accordingly, the relationship between students participating in a LC and those not participating in a LC may be due to instructor variation. 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. In addition, meta-analysis could also be used to examine the relationship between learning community themes and student outcomes. A relationship between the learning community theme and student outcomes might help to inform best practices for implementing future learning communities.

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.