

Research Briefs from the Office of Institutional Effectiveness, Research & Planning

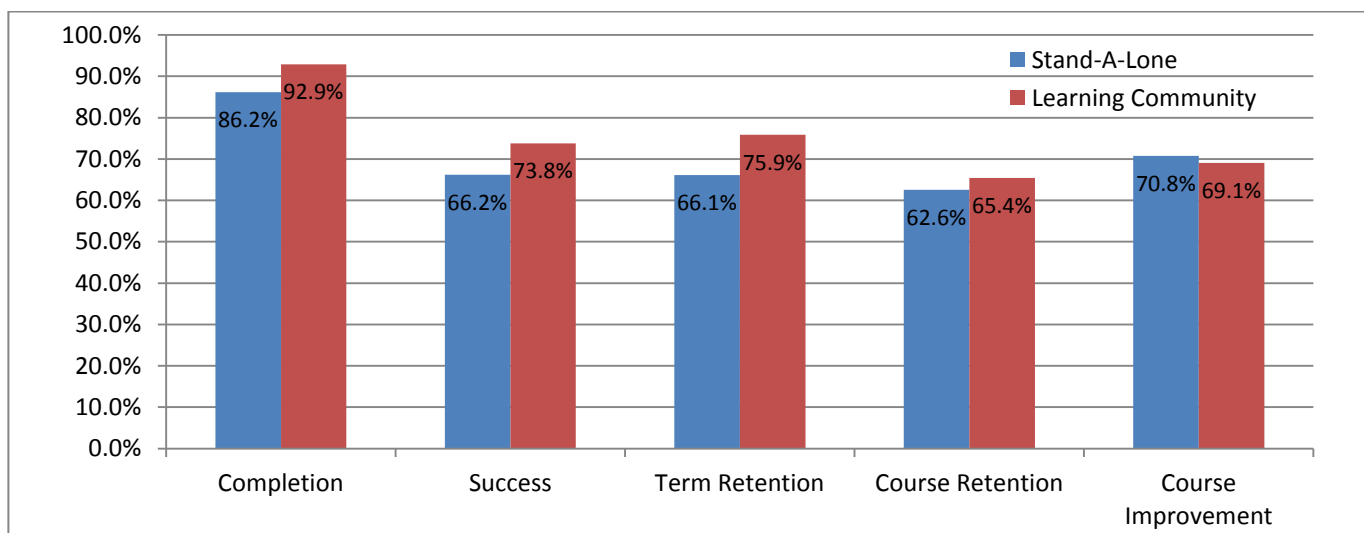
The Relationship between Learning Communities and Student Success from Spring 2007 to Spring 2009 for the ENGL-015, Preparation for College Writing, Learning Communities

**Overview:** This brief illustrates the findings from research examining the relationship between participating in learning communities that had ENGL-015, Preparation for College Writing, as one of the linked courses from Spring 2007 to 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 ENGL-015 learning communities (LCs) were statistically significantly ( $p < .05$ ) and substantially (ES = .20) **more** likely to complete ENGL-015 with a GOR (93%) than students in stand-A-lone courses (86%)
- Students in the ENGL-015 LCs were statistically significantly ( $p < .05$ ) and substantially (ES = .21) **more** likely to be retained to the subsequent primary term (76%) than students in stand-A-lone courses (66%)
- Overall, students participating in ENGL-015 LCs did not have a statistically significant or substantially higher course success rate or a higher success rate in ENGL-101, Freshmen Composition, than students in the stand-A-lone courses
- Students in the ENGL-015 and SOC-100, Introduction to Sociology, LC did have a statistically significantly ( $p < .05$ ) and substantially higher (ES  $\geq .20$ ) course success rate and a higher success rate in ENGL-101 than students in the stand-A-lone courses; however, for two LCs this only impacted 25 students

Figure 1: Stand-A-Lone and Learning Community Completion, Success, Term Retention, Course Retention, and Course Improvement Rates for the English Learning Communities from Spring 2007 to Spring 2009.



**Table 1: Stand-A-Lone and Learning Community Completion, Success, Term Retention, Course Retention, and Course Improvement Rate with Effect Size and Statistical Significance for the English Learning Communities from Spring 2007 to Spring 2009.**

Outcome by Course	Stand-A-Lone (Instructor)			Learning Community			Effect Size	Statistically Significant
	#	N	%	#	N	%		
<b>ENGL-015</b>								
Completion	1,367	1,585	<b>86.2</b>	131	141	<b>92.9</b>	0.20	Yes
Success	1,049	1,585	<b>66.2</b>	104	141	<b>73.8</b>	0.16	No
Retention to ENGL-101	657	1,049	<b>62.6</b>	68	104	<b>65.4</b>	0.06	No
Success in ENGL-101	465	657	<b>70.8</b>	47	68	<b>69.1</b>	-0.04	No
Term Retention	1,048	1,585	<b>66.1</b>	107	141	<b>75.9</b>	0.21	Yes
<b>All Paired Courses</b>								
Completion	629	692	<b>90.9</b>	132	140	<b>94.3</b>	0.12	No
Success	525	692	<b>75.9</b>	107	140	<b>76.4</b>	0.01	No
Term Retention	502	692	<b>72.5</b>	107	140	<b>76.4</b>	0.09	No
<b>Total</b>								
Completion	1,996	2,277	<b>87.7</b>	263	281	<b>93.6</b>	0.18	Yes
Success	1,574	2,277	<b>69.1</b>	211	281	<b>75.1</b>	0.13	Yes

**Table 2: Stand-A-Lone and Learning Community Completion, Success, Term Retention, Course Retention, and Course Improvement Rate with Effect Size and Statistical Significance for the English Learning Communities from Fall 2008 to Spring 2009.**

Outcome by Course	Stand-A-Lone (Instructor)			Learning Community			Effect Size	Statistically Significant
	#	N	%	#	N	%		
<b>ENGL-015</b>								
Completion	817	947	<b>86.3</b>	42	48	<b>87.5</b>	.04	No
Success	622	947	<b>65.7</b>	40	48	<b>83.3</b>	.37	Yes
Retention to ENGL-101	370	622	<b>59.5</b>	28	40	<b>70.0</b>	.21	No
Success in ENGL-101	262	370	<b>70.8</b>	25	28	<b>89.3</b>	.41	Yes
Term Retention	545	947	<b>57.6</b>	33	48	<b>68.8</b>	.23	No
<b>SOC-100*</b>								
Completion	220	243	<b>90.5</b>	44	47	<b>93.6</b>	.11	No
Success	188	243	<b>77.4</b>	41	47	<b>87.2</b>	.24	No
Term Retention	148	243	<b>60.9</b>	33	47	<b>70.2</b>	.19	No
<b>Total</b>								
Completion	1,037	1,190	<b>87.1</b>	86	95	<b>90.5</b>	.10	No
Success	810	1,190	<b>68.1</b>	81	95	<b>85.3</b>	.37	Yes

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

**Table 3: Stand-A-Lone and Learning Community Completion, Success, Term Retention, Course Retention, and Course Improvement Rate with Effect Size and Statistical Significance for the English Learning Communities from Spring 2007 to Fall 2008.**

Outcome by Course	Stand-A-Lone (Instructor)			Learning Community			Effect Size	Statistically Significant
	#	N	%	#	N	%		
ENGL-015								
Retention	504	584	<b>86.3</b>	45	46	<b>97.8</b>	0.34	Yes
Success	395	584	<b>67.6</b>	34	46	<b>73.9</b>	0.13	No
Persistence to ENGL-101	266	395	<b>67.3</b>	27	34	<b>79.4</b>	0.26	No
Success in ENGL-101	186	266	<b>69.9</b>	18	27	<b>66.7</b>	-0.07	No
Persistence to Fall 2007	462	584	<b>79.1</b>	41	46	<b>89.1</b>	0.25	Yes
READ-078X2								
Retention	144	166	<b>86.7</b>	44	46	<b>95.7</b>	0.28	Yes
Success	117	166	<b>70.5</b>	41	46	<b>89.1</b>	0.43	Yes
Persistence to Fall 2007	123	166	<b>74.1</b>	41	46	<b>89.1</b>	0.36	Yes
Total								
Retention	648	750	<b>86.4</b>	89	92	<b>96.7</b>	0.31	Yes
Success	512	750	<b>68.3</b>	75	92	<b>81.5</b>	0.29	Yes

Note: The ENGL-015 and READ-078X2 comparison groups were to the same instructor in Spring 2007 and to all other ENGL-015 and READ-078X2 courses in Fall 2008.

**Table 4: Stand-A-Lone and Learning Community Completion, Success, Term Retention, Course Retention, and Course Improvement Rate with Effect Size and Statistical Significance for the English Learning Communities from for the Fall 2007 Communicating within Communities Learning Community.**

Outcome by Course	Stand-A-Lone (Instructor)			Learning Community			Effect Size	Statistically Significant
	#	N	%	#	N	%		
ENGL-015								
Retention	21	26	<b>80.8</b>	25	26	<b>96.2</b>	.47	No
Success	13	26	<b>50.0</b>	14	26	<b>53.8</b>	.08	No
Persistence to ENGL-101	11	13	<b>84.6</b>	7	14	<b>50.0</b>	-.77	No
Success in ENGL-101	9	11	<b>81.8</b>	2	7	<b>28.6</b>	-1.21	Yes
Persistence to Spring 2008	20	26	<b>76.9</b>	18	26	<b>69.2</b>	-.017	No
SPEECH-100								
Retention	226	241	<b>93.8</b>	25	26	<b>96.2</b>	.08	No
Success	187	241	<b>77.6</b>	15	26	<b>57.7</b>	-.47	No
Persistence to Spring 2008	194	241	<b>80.5</b>	18	26	<b>69.2</b>	-.27	No
Total								
Retention	247	267	<b>92.5</b>	50	52	<b>96.2</b>	.12	No
Success	200	267	<b>74.9</b>	29	52	<b>55.8</b>	-.43	Yes

Note. The English Stand-A-Lone course included students with the same instructor as those in the learning community. The instructor who taught the speech course in the learning community did not teach another section of speech; therefore, students who had SPEECH-100 in any Stand-A-lone course were used as the control group.

**Table 5: Stand-A-Lone and Learning Community Completion, Success, Term Retention, Course Retention, and Course Improvement Rate with Effect Size and Statistical Significance for the English Learning Communities from for the Fall 2008 Self and Society Learning Community.**

Outcome by Course	Stand-A-Lone (Instructor)			Learning Community			Effect Size	Statistically Significant
	#	N	%	#	N	%		
ENGL-015								
Retention	25	28	<b>89.3</b>	19	21	<b>90.5</b>	0.03	No
Success	19	28	<b>67.9</b>	16	21	<b>76.2</b>	0.17	No
Persistence to ENGL-101	10	19	<b>52.6</b>	6	16	<b>37.5</b>	-0.30	No
Success in ENGL-101	8	10	<b>80.0</b>	2	6	<b>33.3</b>	-1.03	No
Persistence to Spring 2009	21	28	<b>75.0</b>	15	21	<b>71.4</b>	-0.09	No
THART-100								
Retention	39	42	<b>92.9</b>	19	21	<b>90.5</b>	-0.11	No
Success	33	42	<b>78.6</b>	10	21	<b>47.6</b>	-0.69	Yes
Persistence to Spring 2009	37	42	<b>88.1</b>	15	21	<b>71.4</b>	-0.45	No
Total								
Retention	64	70	<b>91.4</b>	38	42	<b>90.5</b>	-0.03	No
Success	52	70	<b>74.3</b>	26	42	<b>61.9</b>	-0.26	No

Note: The Stand-A-Lone ENGL-015 and THART-100 sections were taught by the same instructor as the learning community sections.

**Methodology:** To examine the relationship between students in Learning Communities (LC) and student performance, students in a LC with ENGL-015, Preparation for College Writing, 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. In Table 2, the sociology comparison controlled for instructor and term, but controlling for instructor was not possible with students in the ENGL-015 LC. In Table 3, the ENGL-015 and READ-078X2 comparison groups were to the same instructor in Spring 2007 and to all other ENGL-015 and READ-078X2 courses in Fall 2008. In Table 4, the ENGL-015 comparison group was to the same instructor. In SPEECH-100, Elements of Public Speaking, the comparison group included all SPEECH-100 sections offered in Fall 2007. Finally, in Table 5, the ENGL-015 and THART-100, Introduction to Theatre, comparison groups were to the same instructor in Fall 2008.

Grade on record (GOR) refers to one of the following grades: A, B, C, D, F, CR/P, NC/NP, I, or W. Completion 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, Freshmen Composition), 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. 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 all of the comparison groups. Accordingly, the relationship between students participating in an LC and those not participating in an 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.