# **Research Brief**

Summary of the Results on Learning Community Research Conducted at Crafton from Spring 2007 to Spring 2013

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# **Purpose of Brief**

The purpose of this brief is to summarize the results of the learning community research conducted at Crafton from Spring 2007 to Spring 2013.

#### **Summary of Findings**

### Spring 2007 to Spring 2013

- LCs were more likely to be related course success than any of the other student outcome measures
- LCs also appear to be related to successfully completing the next highest level English course

#### Spring 2013

- Students reported that they felt more comfortable asking questions in class as a result of participating in the LC
- Students reported that participating in a LC helped them to develop connections with other students
- Students indicated that the instructors in the LC did not appear to have planned assignments together

# Overview

The Learning Communities Steering Committee (LCSC) is currently discussing the direction of learning communities (LC) at Crafton Hills College and the Committee wanted to review the results of the past research conducted on LCs at Crafton to help inform that discussion. This brief illustrates the results from eight studies conducted on LCs at Crafton in the last few years

# **Methodology**

A limitation to the results provided here is that research that occurred prior to 2010 does not include all of the LCs that students participated. The only research conducted on LCs prior to 2010 only included LCs that were linked to an English, math, or reading courses. In addition, how LCs were implemented changed in Spring 2012 and may have had an impact on the effectiveness of LCs.

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 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 was only examined for English and math and refers to students who successfully completed an English or math course and subsequently earned a GOR in the next highest level English or math course. Course improvement refers to those students who successfully completed the next highest English or math course.

The effect size statistic was used to indicate the size of the difference on success between those who participated and did not participate in a LC. A method of interpreting effect size was developed by Jacob Cohen, a renowned statistician and psychologist. Jacob Cohen defined "small", "medium", and "large" effect sizes. He explained that an effect size of .20, .50, and .80 can be small, medium, and large, respectively. An effect size of .20 or higher is considered meaningful or substantial (i.e. Sub?). It is important to mention that the number of students in each group does not influence effect size; whereas, when statistical significance (i.e. Sig?) is calculated, the number of students in each group does influence the significance level (i.e. "p" value being lower than .05).

#### **Findings**

Table 1 summarizes the research at Crafton on the relationship between LC participation to the following student outcomes: course completion, course success, term-to-term retention, course retention, and course improvement. The results are mixed, but indicate that LCs are more likely to be related to course success than any of the other measures. In addition, LCs also appear to be related to course improvement. Of the four areas where this was examined, two of the LC were related to statistically significant and a substantial increase in the likelihood that LC students would successfully complete the next highest English course.

Table 1: Summary of the Research at Crafton Hills College Conducted on the Relationship between Learning Community Participation to Student Outcomes from Spring 2007 to Spring 2013.

RRN	Time Period	Discipline(s)	Completion		Success		Term Retention		Course Retention		Course Improvement	
			Sig?	Sub?	Sig?	Sub?	Sig?	Sub?	Sig?	Sub?	Sig?	Sub?
<u>31</u>	2007SP- 2009SP	English, math, and Reading	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No
<u>520</u>	2008FA- 2009SP	English and Sociology (ENGL-015)	No	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes
<u>520</u>	2008FA- 2009SP	English and Sociology (SOC-100)	No	No	No	Yes	No	Yes	NA	NA	NA	NA
<u>556</u>	2007SP- 2009SP	English with Sociology (ENGL-015)	No	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes
<u>556</u>	2007SP- 2009SP	English with Sociology (SOC-100)	No	No	No	Yes	No	Yes	NA	NA	NA	NA
<u>556</u>	2007SP- 2009SP	English with Reading (ENGL-015)	Yes	Yes	No	No	Yes	Yes	No	Yes	No	No
<u>556</u>	2007SP- 2009SP	English with Reading (READ-078)	Yes	Yes	Yes	Yes	Yes	Yes	NA	NA	NA	NA
<u>556</u>	2007SP- 2009SP	English with Speech (ENGL-015)	No	Yes	No	No	No	No	No	No	No	No
<u>556</u>	2007SP- 2009SP	English with Speech (SPEECH-100)	No	No	No	No	No	No	NA	NA	NA	NA
<u>556</u>	2007SP- 2009SP	English with Theater (ENGL-015)	No	No	No	Yes	No	No	No	No	No	No
<u>556</u>	2007SP- 2009SP	English with Theater (THART-100)	No	No	No	No	No	No	NA	NA	NA	NA
<u>614</u>	2010FA- 2012SP	All LCs offered at CHC during time period	No	No	Yes	Yes	Yes	Yes	NA	NA	NA	NA
<u>665</u>	2013SP	STEM Geology, Math, & CHC LC (GEOL-100)	No	No	No	No	NA	NA	NA	NA	NA	NA
<u>665</u>	2013SP	STEM Geology, Math, & CHC LC (MATH-090)	No	No	No	No	NA	NA	NA	NA	NA	NA
<u>665</u>	2013SP	STEM Geology, Math, and CHC LC (CHC-090)	No	No	No	Yes	NA	NA	NA	NA	NA	NA
<u>665</u>	2013SP	STEM chemistry and math (CHEM-101)	No	No	No	No	NA	NA	NA	NA	NA	NA
<u>665</u>	2013SP	STEM chemistry and math (MATH-095)	No	No	No	Yes	NA	NA	NA	NA	NA	NA
Totals		3	3	5	10	4	7	0	3	2	2	

Note: "Sig?" refers to a statistically significant (p < .05) relationship and "Sub?" refers to a substantial relationship (ES > .15).

Table 2 summarizes the research at Crafton on the relationship between LC participation to self-reported information about how students felt about participating in the LC. The results indicated that students felt more comfortable asking questions in class and that developed connections with other students as a result of participating in the LC. Students also indicated that the instructors in the LC did not appear to have planned assignments together.

Table 2: Summary of the Research at Crafton Hills College Conducted on the Relationship between Learning Community Participation to Self-Reported Effects of Learning Communities in Spring 2013.

	80% or Hig				
	Spring 2013	Spring 2013	Spring 2013 Title V	Number of	
Statement	Title V	Title V	Transfer Prep	"Yes"	
	Transfer Prep	STEM (RRN	Developmental	Responses	
	( <u>RRN -652</u> )	<u>-712</u> )	Courses (RRN-713)		
Being in a learning community has helped me see connections among my					
classes (for example, learning in one	No	No	No	0	
class supported or expanded on what I	INO	INO	INU	U	
learned in another class).					
Being part of a learning community					
made me feel more supported in my	Yes	No	No	1	
choice to go to college.	100	140	110	'	
Being part of a learning community					
made me feel more supported in my	No	No	No	0	
coursework.					
I am satisfied with my learning	Yes	Yes	Yes	3	
community experience.	163	163	163	3	
I felt comfortable asking questions and					
making contributions in class	Yes	Yes	Yes	3	
discussions.					
I worked with other students in my	Yes	No	Yes	2	
learning community outside of class.				<del>-</del>	
I would recommend joining a learning	Yes	Yes	Yes	3	
community to other students.					
Participating in a learning community helped me develop connections with	No	Yes	No	1	
faculty and staff.	INO	162	INU	1	
Participating in a learning community					
helped me develop connections with	Yes	Yes	Yes	3	
other students.	1.00	100	100		
The instructors in my learning					
community planned assignments	No	No	No	0	
together.					