

The Relationship Between Residential
Learning Communities and Student Engagement

Sarah S. Hurtado

University of Denver

Robert M. Gonyea

Polly A. Graham

Kevin Fosnacht

Indiana University Bloomington

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Abstract

Residential learning communities (RLCs) are residence hall environments designed to deliver academic and social benefits. For decades, RLCs have been touted as an effective means to increase student success. Yet, substantial changes in the defining characteristics of campus housing and student diversity have led to new questions about the impact of living on campus and the benefits of RLCs in particular. Consequently, we investigated the continued efficacy of RLCs as an effective educational practice. Using data from a diverse, multi-institution sample of first-year and sophomore students, this study provides insight into the relationships between RLC participation, student engagement, and perceived gains in learning.

Keywords: Residential learning communities; living-learning programs; student engagement; residence life

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Literature Review

Residential learning communities (RLCs) blur the lines between a student's curricular and co-curricular experiences on campus "by providing a community that fosters greater faculty and peer interaction, increased opportunities for coordinated learning activities and an academically and socially supportive living environment" (Inkelas & Weisman, 2003, p. 335). Although institutions structure RLCs differently (Inkelas, Jessup-Anger, Benjamin, & Wawrzynski, 2018), the primary purpose is to marry students' academic experiences with their living environment (Shapiro & Levine, 1999). Many institutional leaders use anecdotal evidence to support the development and implementation of RLCs (Inkelas et al., 2018), which leads to a greater need to understand their true impact on the student experience.

Elements of Residential Learning Communities

Residential learning communities come in all shapes and sizes. These residential programs are typically housed within an entire residence hall or located within a floor, wing, or another contiguous living unit (Inkelas & Associates, 2004), and often involve collaboration with multiple campus units such as academic affairs, registrars, advising programs, and first-year experience programs. The National Study of Living-Learning programs (2008) identified 41 types grouped into 17 main categories. However, the NSLLP identified common components: (a) infrastructure, (b) academic environment, (c) co-curricular environment, and (d) the pinnacle at the top level. The infrastructure level refers to clearly articulated goals of the RLC and the partnerships between residential life staff and academic departments (Inkelas et al., 2018). The academic environment component includes course elements, advising, and academic resources and support in the living environment (Inkelas et al., 2018). The co-curricular environment

component differ depending on the learning goals of the RLC, but is meant to enhance the academic environment (Inkelas et al., 2018). Lastly, the pinnacle component is the integration of all of these previous components (Inkelas et al., 2018). Although many students have multiple educational enriching experiences available to participate in, the RLC is often highly recognized because it “explicitly seeks to support and augment student learning and development” (Inkelas et al., 2018, p. 142).

Benefits of Residential Learning Communities

The proliferation of RLCs at colleges and universities is due in large part to the reported benefits of participation, such as greater capacity for critical thinking (Inkelas, Vogt, Longerbeam, Owen, & Johnson, 2006), improved academic performance (Inkelas & Soldner, 2011), and openness to new perspectives and difference (Inkelas & Weisman, 2003). Research studies found that RLC students interacted more with faculty through academic and career advising and facilitated social opportunities (Garret & Zabriskie, 2003; Inkelas & Soldner, 2011). They also more frequently visited faculty during office hours, asked faculty for course-related help, and discussed personal, career, and academic concerns with faculty (Garret and Zabriskie, 2003). Additionally, RLC students on average had a stronger sense of community, increased peer interaction particularly as it relates to academics and careers (Inkelas & Weisman, 2003; Inkelas et al., 2006; Inkelas et al., 2018), and more access to academic advising, tutoring, and other programming catered to their academic and career interests (Inkelas & Weisman, 2003; Inkelas et al., 2018). The boost in faculty and peer interaction and access to resources and support may be why RLC students yielded benefits from their participation (Brower & Inkelas, 2010; Inkelas & Soldner, 2011).

With the majority of research over the past 25 years confirming the positive net effect of RLCs, colleges and universities across the US have developed residential learning communities on their campuses to keep up with best practices (Brower & Inkelas, 2010). However, these programs vary widely in scope, structure, and resources. In order to get a comprehensive view of the landscape, Brower and Inkelas conducted a five-year longitudinal study of RLCs (which they called living-learning programs). With close to 24,000 responses from students enrolled at 34 postsecondary institutions, they obtained a extensive amount of data on the state of RLCs. Averaging across all types of programs, Brower and Inkelas confirmed positive benefits for RLC participants in comparison to characteristically similar students who had not participated. They found a wide range of benefits, including social, academic, and civic outcomes. Importantly, these positive effects were lasting, meaning that three years later students who had spent just one-year in an RLC were reporting more academic self-confidence, more frequent mentoring of other students, and more commitment to civic engagement. The scope and depth of Brower and Inkelas' study provided a high level of confidence that RLCs were worth the time, effort, and resources needed to develop and sustain them. Their general endorsement of RLCs should not be overshadowed by their conclusion that the quality of RLCs varies greatly. Brower and Inkelas identified three indicators of successful programs: (a) a strong, collaborative presence of student affairs and academic affairs; (b) highly integrated, academically focused learning objectives; and (c) a focus on encouraging learning in every and all community spaces.

The positive outcomes associated with RLCs are consistent with decades of research establishing the benefits of living on campus in general (Astin, 1993; Pascarella, Bohr, Nora, Zusman, Inman, & Dealer, 1993; Pascarella & Terenzini, 1991; Pike, 2002). We would expect these positive effects to be more prevalent in the intentional on-campus living environments

facilitated in RLCs. However, current changes in the on-campus housing landscape have left questions about the extent to which students benefit from on-campus living generally, and, in turn, from RLCs. For example, a recent study found little difference in engagement between students who lived on campus and those who lived within walking distance, raising legitimate questions whether engagement is more related to campus proximity than to the programs and services provided within campus housing (Graham, Hurtado, and Gonyea, 2018). If so, examining the effects of RLC participation for on-campus students could deepen our insight into the specific elements of living on campus that are designed to promote more profound levels of student engagement. Additionally, most RLC research has focused on single programs or institutions, prompting researchers to call for more generalizable multi-institution studies (Brownell & Swaner, 2009; Inkelas & Soldner, 2011). With that in mind, we approached this study from the following research questions:

1. Does RLC participation lead to greater access to academic and support opportunities and resources for on-campus students?
2. Does RLC participation lead to greater student engagement for on-campus students?
3. Do RLC participants perceive larger academic and co-curricular gains in general, and do they perceive their living situation in particular to have an increased impact on their academic success?

Conceptual Framework

Our study was guided by Kuh and colleagues' (1991) articulation of student engagement theory. Student engagement represents two critical aspects of college quality. The first is the amount of time students spend on effective educational experiences, and the second is how an institution structures its resources to provide quality of educational opportunities (Kuh, 2001).

Therefore, student engagement is best understood not as a single construct or characteristic that can be measured, but rather as a domain of empirically derived practices that represent multiple and often interrelated learning activities. Additionally, the theory highlights the role of the institution in facilitating engagement in effective educational practices. Engagement is related to a lineage of student development concepts in the literature such as Pace's (1982) quality of effort concept, Astin's (1993) student involvement principle, Tinto's (1975, 1987) notions of academic and social integration, and Chickering and Gamson's (1987) seven principles of good practice in undergraduate education. Rather than solely focusing our attention on what students are or are not doing, the theory also allows us to examine how the institution structures its curriculum and co-curriculum in order to foster student learning and development. This latter focus is key to this study in that RLCs represent an institutional response to improve student learning and development by fostering student engagement.

Methods

Data Source

Data for the study came from the 2018 administration of the National Survey of Student Engagement (NSSE), an annual large-scale, multi-institutional survey, and from a questionnaire of student living arrangements appended to NSSE. The NSSE questionnaire asks students about their engagement in educationally purposeful activities and to estimate the extent to which their institution contributed to their knowledge, skills, and personal development in several curricular and co-curricular areas. The living arrangements survey included an additional set of questions about student experiences in housing (both on and off campus) that were administered to first-year and sophomore students enrolled at 76 NSSE-participating institutions. The response

rate was 22.4% for first-year students and 19.4% for sophomores. Response rates of this magnitude are relatively unbiased for NSSE data (Fosnacht, Sarraf, Howe, & Peck, 2017).

Sample

We received responses from over 21,000 first-year (68%) and sophomore (32%) students who lived on campus at the 76 institutions. Of these students, 17% (20% of first-year students and 12% of sophomores) participated in an RLC, defined as a residential program where students take at least one class together and attend common educational or social activities. Seventy-one percent of the sample was female, and 61% was White, 12% was African American, 7% was Asian, and 7% was Latino/a/x. A little over half (53%) reported that they earned mostly 'A' grades in their courses. Programs of study were well distributed among ten related-major categories. A third (34%) of respondents were first-generation college students, and nearly all were of traditional age. For more details on student characteristics, see Table 1.

The 76 institutions in the sample represented the diversity of U.S. bachelor's degree-granting institutions. Nearly half were master's level, with the remainder divided between bachelor's and doctoral institutions. Fifty-seven percent were private institutions, and 11% were minority-serving institutions. Institutions ranged in size from small (under 1,000 undergraduates) to large (20,000 or more undergraduates), were distributed regionally across the US, and were located in cities, suburbs, and rural areas. For more details about institutional characteristics, see Table 2.

Variables

The key independent variable utilized in the study was participation in a living-learning community, captured on the supplemental housing questionnaire as follows: *"Do you participate in a residential program where students take at least one class together and attend common*

educational or social activities (often called a “living-learning community”)?” From the living arrangements survey, we also utilized data on student participation in activities in their place of residence. These survey items included participation in the following activities: attended a class, met with a faculty member, met with an academic advisor, used academic support services, studied or worked on a project with other students, attended social or co-curricular activities, attended diversity-related activities, and attended health and wellness activities. We utilized these variables to show how RLCs influence students’ activities qualitatively.

For our multivariate models, we selected ten dependent variables based on the claims made in the literature about the intended purposes and benefits of RLCs. Dependent variables included six NSSE Engagement Indicators: Collaborative Learning, Student-Faculty Interaction, Discussions with Diverse Others, Reflective and Integrative Learning, Quality of Interactions, and Supportive Environment. Dependent variables also included NSSE measures of institutional contributions to learning – perceived co-curricular gains, perceived academic gains, and self-reported grades. Finally, we used one dependent variable collected on the housing supplement that asked students to rate the impact their current living situation had on their ability to succeed academically. We standardized all dependent variables so that the resulting model coefficients represent the change in standard deviation units of the dependent variable for a one-unit change in the independent variable.

We included a number of control variables that previous research has been shown to relate to students’ engagement and perceived gains (National Survey of Student Engagement, 2010), including class level, sex, race/ethnicity, self-reported grades, SAT (or ACT equivalent) scores, major field category, first-generation status, traditional age status, transfer status, and hours spent working on or off campus. We also included the average adjusted gross income

(Internal Revenue Service, 2018) of the students' home zip code as a proxy for parental income, hypothesizing that greater resources in students' home communities (economic and social) would correlate with participation in special programs in college such as RLCs. Finally, we included the institutions the students attended, thus controlling for both observable characteristics like enrollment size and unobserved institutional features like faculty's effort in promoting student learning. See Table 4 for a complete list of the control variables.

Analysis

First, we compared the frequency of involvement for RLC participants and non-participants in several learning opportunities (such as attending a class, meeting a faculty member or advisor, or using academic support services) that took place *within the students' place of residence*. This descriptive analysis brought forth the qualitative ways RLC participation influences the college experience. Next, we conducted a multivariate analysis of the six dependent variables, controlling for the salient institutional and student characteristics described above in order to isolate the net relationship of participation in a residential learning community. Because the dependent variables were standardized, we can interpret the magnitude of the regression coefficients as an effect size and compare the relative association of a one-unit change in the independent variables on the dependent variables.

Limitations

Before presenting the results, our study has some limitations that readers should keep in mind while interpreting the results. First, while our sample is relatively diverse in terms of student and institutional participation, the sample is a convenience sample of institutions that participated in NSSE and were willing to administer the housing items to their students. Second, roughly a third of the sample had missing data for their standardized test score (SAT I or ACT

equivalent). We opted to include this variable in our analyses to prevent missing variable bias, but the substantial sample reduction could also bias our results. We re-estimated the multivariate models without including the standardized test score variable, and we did not observe a meaningful change in the results. Third, the results should be viewed as correlational, not causal. We did not have the ability due to ethical concerns to randomly assign students to participate in a living-learning community. Furthermore, a logistic regression model predicting RLC participation had a pseudo R^2 of 0.02 indicating that we were not able to predict RLC participation accurately. Thus, alternative quasi-experimental methods like propensity score analysis would not be suitable for this situation. Finally, the literature indicates that RLCs come in a variety of forms (Inkelas et al., 2018), but our data on RLCs was limited to a single variable indicating if a student participated in an RLC. Thus, our results should be viewed as a broad average of the influence of RLCs and that the results for a particular program or RLC model may differ. This caveat is supported by research on non-residential forms of learning communities suggests that the effectiveness of learning communities varies substantially across institutions (Fosnacht & Graham, 2019).

Results

We began our analyses by descriptively examining eight items that asked about participation in educational and co-curricular activities where they lived by RLC participation (see Table 3). Overall, students participated more often in activities that involved meeting with other students within the place of residence (e.g., studying together or attending social activities) and less often in activities that involved outside faculty or staff members within the place of residence (e.g., attending a class, meeting faculty and advisors, using support services). However, results demonstrate that RLC participants engaged in all eight activities at higher rates

than non-RLC participants. For example, RLC residents were two to three times more likely to attend a class, meet with a faculty member, meet an academic advisor, or use academic support services where they lived. Participants were also substantially more likely to study with other students, attend social or co-curricular activities, attend diversity-related activities, and attend health and wellness activities in their place of residence. All comparisons were statistically significant ($p < .001$).

Next, we estimated a series of multivariate regression models that examined how RLC participation was related to facets of student engagement, perceived gains, the impact of housing on academics, and self-reported grades. These models demonstrated that, after controlling for a broad array of student and institution characteristics, participating in an RLC had a statistically significant and positive relationship with all of the outcomes studied (Table 4). The largest estimates were associated with students' sense of how their living arrangement impacted their academic outcomes (0.25 SDs) and Student-Faculty Interaction (0.23 SDs). The estimates for co-curricular gains and Collaborative Learning were both 0.18 SDs. Similarly, RLC participants were modeled to have 0.14 SD higher scores on Reflective & Integrative Learning and perceived academic gains than non-participants. The estimated relationship for grades, Supportive Environment, Quality of Interactions, and Discussions with Diverse Others all ranged between 0.07 and 0.12 SDs.

Discussion

Residential learning communities represent one of higher education's longest running student success initiatives with roots that trace back to the residential colleges at Cambridge and Oxford (Inkelas et al., 2018). While the positive benefits of RLCs have been well known for decades (Lacy, 1978; NSLLP, 2008; Pascarella & Terenzini, 1980, 1981; Pike, Schroeder, &

Berry, 1997), over a decade has elapsed since the last large-scale evaluation of RLCs (NSLLP, 2008). In this period, the landscape of higher education has substantially changed as the student body has increasingly diversified, technology has altered the classroom experience (even eliminating the classroom in some circumstances), and the smartphone has disrupted how students interact with one another. Thus, it is imperative to ensure that the RLC model still works in this new era for higher education.

In this study, we sought to re-affirm the benefits of RLC participation. We used an integrative data source that captures the experiences of over 20,000 first-year and sophomore students who lived on campus at 76 diverse institutions in 2018. In particular, we examined how residential learning communities related to six outcomes that they are generally designed to influence: collaborative learning, discussions with diverse others, student-faculty interaction, perceived gains in co-curricular activities, perceived academic gains, and students' perception of their living situation's impact on academic success.

Overall, the results comport with previous work concluding that RLCs have the potential to improve the student learning experience. Students who participated in RLCs, on average, engaged more often in effective educational practices that have been previously demonstrated to result in student learning and development, after conditioning for other student and institutional characteristics (NSSE, 2018). Similarly, RLC participation was associated with an increase in the impact of residential life on academics, perceived gains, self-reported grades, and perceptions of the campus environment. NSSE recommends using the following criteria to contextualize the magnitude of absolute observed differences in effect size units (Rocconi & Gonyea, 2018): less than 0.1 = trivial, 0.1 to less than 0.3 = small, 0.3 to less than 0.5 = medium, and greater than 0.5

= large. Therefore, all of our estimates fall into the small range, except for Quality of Interactions and Discussions with Diverse Others which were trivial.

Given these ranges, the results suggest that RLCs do not have a large effect on a specific educational outcome; instead, RLCs appear to have a small influence on a host of educational outcomes. When our multivariate results are supplemented with our descriptive findings, RLC's appear to create a better, more supportive learning experience by making classes, faculty, advisors, and academic support more readily accessible in the residential environment. They also make more co-curricular learning opportunities available by increasing student's interactions with diversity and boosting their wellness opportunities.

While the results confirm that RLCs are still an effective programming type for positive undergraduate outcomes, has the influence of RLCs on student outcomes changed over time? We compared our results with the findings of Inkelas, Vogt, Longerbeam, Owen and Johnson's (2006) study of RLCs from 2003. (We would prefer to have compared the results to the National Study of Living-Learning Programs' (2008) final report, but the lack of reporting of the standard deviations of their outcome measures prevented accurate comparisons). Table 5 contains the effect size differences from the current study and the effect size differences from the most similar measure from the Inkelas et al. (2006) study. An important caveat of this comparison is that the Inkelas et al. study only reported mean comparisons; therefore, their findings most likely overstate the impact of RLCs. In contrast, this study controlled for other factors, making the results more conservative.

Overall, the effect sizes were greater in the current study for four of the eight measures. Given that the results from this study are more conservative having the effect size increase for half of the measures suggests that the effectiveness of RLCs has remained stable or increased

over time. The largest difference was for interpersonal self-confidence/Gains: co-curricular. A likely reason for the increased importance of this measure may be due to the increased salience of technology and social in students' lives, which has hindered their ability to make friendships and RLCs provide increased opportunities for making friends in college (Twenge, 2017). In contrast, we observed a substantial reduction in the relationship between RLC participation and "residence hall climate is academically supportive"/Housing impact: Academics and "discussed sociocultural issues with peers"/Discussions with Diverse Others. A likely reason for the former change is that lessons learned from the benefits of RLCs have been widely acknowledged by the residence life community and practices from RLCs have spread to residence life programming for non-RLC units. The latter change is most likely due to the increased of student diversity among today's college students which provides more opportunity for diverse interactions than in the past.

Our results have multiple implications for both policy, practice, and future research. The study confirms that RLCs are still an effective means to promote student engagement and success. However, with their effects being broad rather than deep, RLCs are not a quick fix to drastically improve student outcomes. We join the call that Inkelas and Brower (2010) made for institutions to attend to the quality of their RLCs with the goal of amplifying their positive benefits. Individual institutions should assess the granular effects of their RLCs, seeking to find specific areas of improvement. For example, our study found that RLC students were attending more events related to diversity, but that attendance did not translate to a large increase in engagement with diverse others. Perhaps instituting a talk-back or reflection component to diversity-related events could prompt students to be more engaged, resulting in what we want for students—increased understanding and empathy—rather than just exposure. This type of on-the-

ground, context-specific changes is what could push RLCs to have a more significant impact. Institutions must do the work, however, of assessing their programs and implementing directed changes.

Furthermore, the broad, positive impacts of RLCs support the continuation of funding and resources for RLC programming. However, should the availability of RLCs be expanded? Only 17% of students in our sample participated in an RLC. Should institutions take learning communities to scale by offering these types of programs for all residential students? Alternately, RLCs could be programs that students participate in throughout their undergraduate career. An example of such an RLC would be the University of Michigan's Residential College, which offers a liberal arts curriculum as a sub-school in the larger liberal college. Future research should evaluate these questions. Additionally, the relationship between RLCs and persistence and graduation, the outcomes of greatest interest to policymakers and the public, are unclear. The most recent research in this area occurred over two decades ago and did not observe a direct relationship between participation and persistence (Pike, Schroder, & Berry, 1997).

Conclusion

This study's results affirmed that RLCs continue to be an effective educational practice, despite the changing nature of both higher education and the undergraduate student body. Our findings indicate that RLCs have a broad array of positive effects on student outcomes like collaborative learning, reflective & integrative learning, perceptions of a positive campus environment, perceived learning gains, and student-faculty interaction. Furthermore, a comparison of results from previous studies suggests that RLCs continue to be as or more effective than in the past. This finding suggests that RLCs remain a relevant and import tool to improve student success.

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Table 1. Demographics of the sample

		Non-RLC		RLC		Total	
		<i>N</i>	%	<i>N</i>	%	<i>N</i>	%
Class	Freshman	11,526	66	2,796	77	14,322	68
	Sophomore	5,960	34	813	23	6,773	32
Sex	Female	12,396	71	2,478	69	14,874	71
	Male	5,090	29	1,130	31	6,220	29
Race or ethnicity	Amer. Indian/AK Native	46	0	18	1	64	0
	Asian	1,206	7	330	9	1,536	7
	Black or African American	2,009	12	433	12	2,442	12
	Hispanic or Latino	1,155	7	259	7	1,414	7
	Nat. Hawaiian/Pac Isl.	32	0	10	0	42	0
	White	10,720	62	2,063	58	12,783	61
	Other	172	1	42	1	214	1
	Multiracial	1,602	9	319	9	1,921	9
	I prefer not to respond	387	2	100	3	487	2
	Self-reported grades	Mostly As	9,123	52	1,932	54	11,055
	Mostly Bs	7,182	41	1,457	40	8,639	41
	Mostly Cs or lower	1,143	7	215	6	1,358	6
Major field	Arts & Humanities	2,023	12	315	9	2,338	11
	Bio. sciences	2,174	12	469	13	2,643	13
	Physical sciences	1,022	6	209	6	1,231	6
	Social Sciences	2,434	14	440	12	2,874	14
	Business	2,306	13	497	14	2,803	13
	Communications	975	6	171	5	1,146	5
	Education	1,207	7	246	7	1,453	7
	Engineering	1,007	6	271	8	1,278	6
	Health Professions	2,389	14	518	14	2,907	14
	Social Serv Prof.	865	5	242	7	1,107	5
	All Other	644	4	134	4	778	4
	Undecided	363	2	76	2	439	2
First-generation ^a		5,919	34	1,311	37	7,230	34
Traditional age ^b		17,169	99	3,532	99	20,701	99
Transferred		1,130	6	210	6	1,340	6
Time spent working	0 hrs/wk	9,750	56	1,852	52	11,602	56
	1 to 5 hrs/wk	1,377	8	275	8	1,652	8
	6-10 hrs/wk	2,095	12	459	13	2,554	12
	11-15 hrs/wk	1,539	9	307	9	1,846	9
	16-20 hrs/wk	1,147	7	248	7	1,395	7
	21-30 hrs/wk	916	5	233	7	1,149	6
	More than 30 hrs/wk	474	3	176	5	650	3

a. Neither parent or anyone who raised you holds a bachelor's degree.

b. Traditional-age is under 21 for first-year students and under 22 for sophomores.

Table 2. Characteristics of participating institutions (N=76)

		N	Column
Carnegie type	Baccalaureate level	18	24
	Master's level	36	47
	Doctoral level	22	29
Control	Private	43	57
	Public	33	43
Barron's Selectivity	Non- or less competitive	5	7
	Competitive	45	59
	Very competitive	14	18
	Highly or most competitive	7	9
Locale	City	37	49
	Suburb	19	25
	Town or Rural	20	26
Region	Far West	7	9
	Great Lakes	12	16
	Mid East	14	18
	New England	7	9
	Outlying areas	1	1
	Plains	7	9
	Rocky Mountains	2	3
	Southeast	23	30
Undergraduate Enrollment Size	Southwest	3	4
	Fewer than 1,000	4	5
	1,000 - 2,499	23	30
	2,500 - 4,999	16	21
	5,000 - 9,999	14	18
	10,000 - 19,999	12	16
MSI	20,000 or more	7	9
		11	14

Table 3. Percentage of first-year and sophomore students that participated in selected activities in their place of residence by residential learning community participation

Which have you done where you live?	non- RLC	RLC
Attended a class (not online)	9	29
Met with a faculty member	10	26
Met with an academic advisor	7	18
Used academic support services	10	21
Studied or worked on a project with other students	35	53
Attended social or co-curricular activities	36	53
Attended diversity-related activities	11	22
Attended health and wellness activities	14	24
None of these	43	18

Note: All differences were significant at $p < .001$; Phi coefficients (a measure of association between two binary variables) for all but "None of these" ranged from .10 to .23 suggesting that these are small to moderate effects). The coefficient for "None of these" was -.20.

Table 4. Regression results for residential learning community participation

Dependent variable	<i>b</i>	Sig.	<i>R</i> ²	<i>N</i>
Reflective & Integrative Learning	0.14	0.000	0.05	12,336
Collaborative Learning	0.18	0.000	0.07	12,252
Discussions with Diverse Others	0.07	0.002	0.02	12,264
Student-Faculty Interaction	0.23	0.000	0.06	12,196
Quality of Interactions	0.09	0.003	0.02	12,104
Supportive Environment	0.11	0.000	0.02	12,319
Perceived Gains: Co-curricular	0.18	0.000	0.03	12,355
Perceived Gains: Academic	0.14	0.000	0.04	12,353
Housing Impact: Academics	0.25	0.000	0.02	12,327
Self-reported grades	0.12	0.000	0.17	12,334

Note: Models controlled for race/ethnicity, sex, class level, first-generation status, adult status, SAT/ACT score, major field, transfer status, educational aspirations, Greek-life participation, student athletics participation, part-time enrollment, time spent working, and average income in students' home communities; Models included institution-level fixed effects; Robust standard errors that accounted for the clustering of students within institutions; all dependent variables were standardized with a mean of 0 and standard deviation of 1. As all dependent variables were standardized, the coefficients represent the expected change in the dependent variable in standard deviation units when a student participates in an RLC.

Table 5. Comparison of the results from Inkelas et al. (2006) and the current study

<u>Inkelas et al. measure</u>	<i>ES</i>	<u>Current study measure</u>	<i>ES</i>
Residence hall climate is academically supportive	0.38	Housing Impact: Academics	0.25
Faculty mentorship	0.15	Student-Faculty Interaction	0.23
Interpersonal self-confidence	0.00	Gains: Co-curricular	0.18
Discussed academic and career issues w/ peers	0.13	Collaborative Learning	0.18
Critical thinking/analysis abilities	0.21	Reflective & Integrative Learning	0.14
Growth in cognitive complexity	0.03	Gains: Academic	0.14
Positive peer diversity interactions	0.13	Supportive Environment	0.11
Discussed sociocultural issues w/ peers	0.20	Discussions w/ Diverse Others	0.07