

Assessing Residential Learning Outcomes: Key Findings from the Residence Life 2008 Quality of Life and Learning Study

Learning in the Residence Halls Project
Office of Residence Life and Housing
Whitman College

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Assessing Residential Learning Outcomes

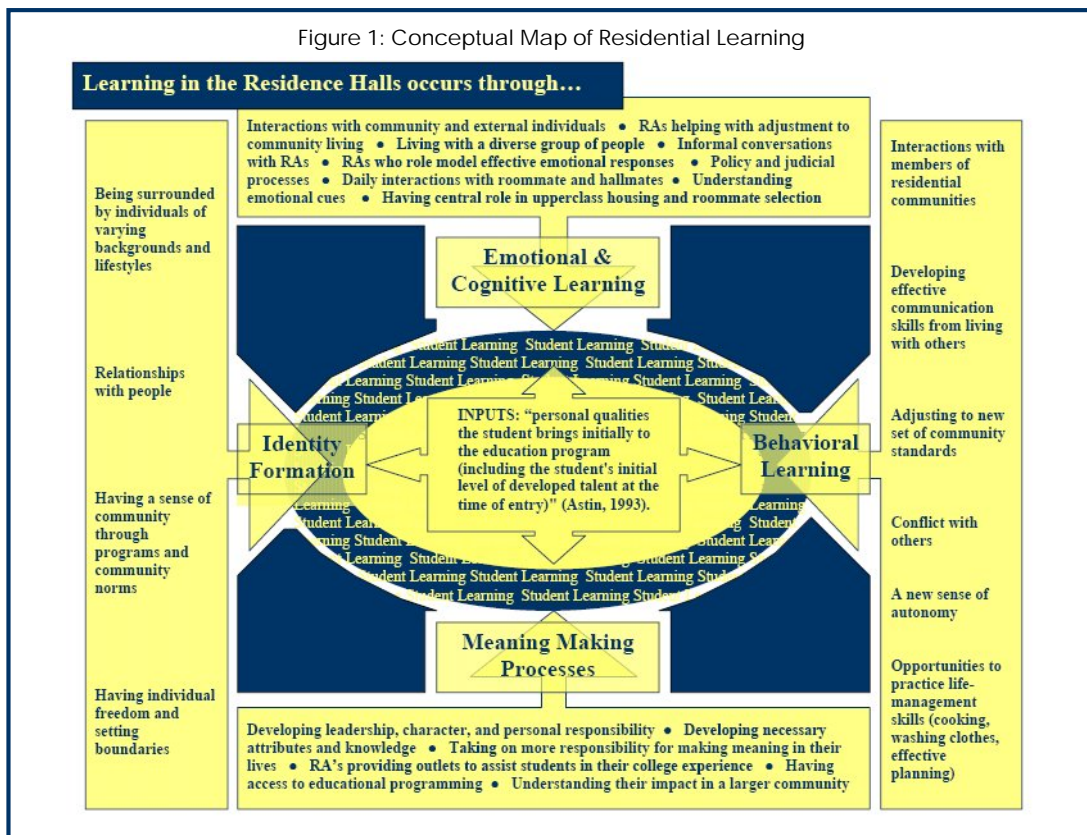
Key Findings from the Residence Life 2008 Quality of Life and Learning Survey

Setting the Context

In recent years, institutions of higher education have been charged to intentionally design programs that enhance and contribute to the student learning experience. In the fall of 2006, the Office of Residence Life and Housing at Whitman College took this charge to fully design and understand the learning taking place within its residence halls. The Learning in the Residence Halls Project began with a process by which the learning environment within the residence halls was analyzed. This led to the creation of a key document outlining this environment: The Whitman College Residential Learning Environment (Residence Life, 2007). One of the key findings of this initial analysis was as follows:

As we begin to take an in-depth look at our residential learning environment, we observe that learning occurs by two means: (1) through day-to-day living and interaction within a residence hall community and (2) through intentional residence life programming and procedures that contribute to student learning. In other words, *the residential learning experience at Whitman College consists of learning that takes place through community living supported by resources to help make meaning of that experience* (p. 2).

After analyzing this learning through the lens of the interconnectedness of student learning described in Learning Reconsidered: A Campus-Wide Focus on the Student Experience (Keeling, 2004), a conceptual map of the learning environment was created to visually represent the learning environment within the Whitman College residence halls.



Residence Life Learning Outcomes

Once the learning environment was analyzed and described, the Residence Life and Housing professional staff set out to define general learning outcomes for their residential population. The outcomes are categorized within seven broad learning outcome categories presented in *Learning Reconsidered: A Campus-Wide Focus on the Student Experience* (Keeling, 2004).

Cognitive Complexity - Students will learn to...

- foresee the consequences of their actions
- articulate their ideas while respecting contrary ones
- think independently and make decisions for themselves
- process information regarding housing needs and requirements

Knowledge Acquisition, Integration, and Application - Students will learn to...

- use knowledge gained from classroom and extracurricular experiences and apply it to their residence hall community living
- identify and utilize appropriate campus and life resources
- internalize and follow basic college policies
- recognize the Wellness Model* as a means to well-rounded living

Humanitarianism - Students will learn to...

- respect, value, and appreciate diversity in the broadest sense
- understand their personal identity and how it relates to their community
- engage in discussion around sensitive issues
- acknowledge the effect of past experiences on individual perspectives

Civic Engagement - Students will learn to...

- recognize their personal impact on individual Whitman community members (students, faculty, and staff) and the community as a whole
- recognize the importance of community standards
- implement strategies for coexisting with others in a common living space
- connect to the community outside of their residence hall
- recognize effective leadership skills and opportunities to develop as leaders

Interpersonal and Intrapersonal Competence - Students will learn to...

- communicate thoughts and feelings effectively
- effectively manage and deal with conflict
- recognize the role of collaboration and interdependence in community living
- set boundaries in living situations and environments
- navigate mature relationships

Practical Competence - Students will learn to...

- make healthy lifestyle choices
- effectively prioritize and manage their time commitments
- perform basic life skills (i.e. laundry, cleaning, etc.)
- follow safety procedures and the importance of such procedures

Persistence and Academic Achievement - Students will learn ...

- to set goals and utilize strategies to obtain them
- the role that residential living plays in a liberal arts education
- to prioritize academics as the central aim of a liberal arts education
- to study effectively in a residential college environment

*The Wellness Model consists of six areas that contribute to well-rounded development and growth: social, lifestyle, emotional, mental, physical, and spiritual areas.

2008 Quality of Life and Learning Study Design

Conceptual Framework: Astin's I-E-O Assessment Model

The Quality of Life and Learning Study (QLLS) was conducted using the framework of Astin's (1993) I-E-O educational assessment model. This model is based on the following premise:

Any educational assessment project is incomplete unless it includes data on student inputs, student outcomes, and the educational environment to which the student is exposed. Outcomes, of course, refers to the "talents" we are trying to develop in our educational program; inputs refers to those personal qualities the student brings initially to the educational programs (including the student's initial level of developed talent at the time of entry); and the environment refers to the student's actual experiences during the educational program (Astin, 1993, p. 18).

This assessment project utilized the I-E-O model in survey design and outcomes measurement. Scales to measure several of the residence life learning outcomes were developed or adapted to measure the outcomes portion of the model. Various environmental factors were assessed through questions designed to evaluate various components of the residential environment, including semesters spent living in residence halls, programming attendance, mentorship from hall staff and students, residence hall climate conducive to various aspects of development, and participation in diversity discussions. Due to the fact that data for this study was only collected once, a quasi-pre-test/post-test survey design was utilized in order to allow respondents to answer retrospective outcome scales designed to collect data on pre-college outcome preparedness and learning.

Learning Outcome Scales

Six scales were used to measure six different learning outcomes from the list of residence life learning outcomes. Three scales (Civic Engagement, Humanitarianism, and Knowledge Acquisition & Application) used items and scales adapted from the National Study of Living Learning Programs (Inkelas & Associates, 2004). The remaining three scales (Cognitive Complexity, Communication, and Conflict Management) were locally designed scales. Each scale was also adapted into a pre-college scale for respondents to retrospectively rate themselves within each outcome prior to starting college. Scales were found to be reliable for both the pre-college and current scales, with Cronbach alphas ranging from .61 to .82 on the pre-college scales and from .76 to .86 for the current scales. A full list of scale items and reliabilities can be found in Appendix A.

Table 1: Student Learning Outcomes Measured in the Quality of Life and Learning Study

Variable	Learning Outcome
Civic Engagement	Students will learn to recognize their personal impact on individual Whitman community members (students, faculty, and staff) and the community as a whole.
Cognitive Complexity	Students will learn to foresee the consequences of their actions.
Communication	Students will learn to communicate thoughts and feelings effectively.
Conflict Management	Students will learn to effectively manage and deal with conflict.
Humanitarianism	Students will learn to understand their personal identity and how it relates to their community.
Knowledge Acquisition & Application	Students will learn to use knowledge gained from classroom and extracurricular experiences and apply it to their residence hall community living.

Quality of Life and Learning Study Survey Instrument

In addition to the pre-college and current scales for the six learning outcomes measured, the QLLS survey contained 11 questions designed to measure various environmental factors and levels of satisfaction for each respondent. Five demographic variables (graduation year, international status, transfer status, race/ethnicity, and gender identity) were also measured. The following environmental factors were measured in studying the residential environment impact on learning outcome growth:

- Semesters lived in Whitman College residence halls.
- Perceived residence hall climate (open/inclusive to closed/hostile).
- Residence hall climate perceived as conducive to academic achievement, building relationships, and personal development.
- Mentoring relationships with resident director, resident assistant, and other residence hall students.
- Amount of programming attended.
- Perceived level of individual respect for the rights of others within community.
- Perceived quality of relationships with roommate(s).
- Level of acquaintance with members within a section or house.
- Perceived sense of community within a section or house.
- Frequency of diversity discussions (scale adapted from Multi-Institutional Study of Leadership, Dugan & Komives, 2007).

Quality of Life and Learning Study Sample

Data collection for the QLLS occurred in the first two weeks of April 2008. Students living on-campus during the Spring 2008 semester were invited to participate (N=794) and 244 responded to the survey. A total of 204 students completed nearly the entire survey. Female respondents (65%, n = 133) were overrepresented compared to male respondents (34%, n = 69) and transgender or other respondents (1%, n = 2) and 15% of respondents identified as students of color (n = 32). Transfer students (3%, n = 7) and international students (3%, n = 7) comprised a very small portion of the sample. The sample exhibited a relatively even distribution between students who had lived on campus one to two semesters (46%, n = 94) and students who had lived on campus three to four semesters (45%, n = 92) while students who have lived on campus for five or more semesters (9%, n = 18) were predictably underrepresented due to Whitman College's two-year residency requirement. Due to this fact, the following data analyses were performed using only students who have lived on campus for four semesters or less. Likewise, due to the low number non-male or non-female respondents, the following data analyses were performed using only female and male students.

Key Findings from the Residence Life Quality of Life and Learning Study

Residence Life Learning Outcomes

Students reported relatively high current scores on the residence life learning outcome scales. On a four-point scale, students rated themselves the strongest on Cognitive Complexity ($m = 3.21$) and the lowest on Conflict Management ($m = 2.81$). Paired sample t -tests revealed that significant change occurred between perceived pre-college levels and current levels for all outcomes except Knowledge Acquisition & Application.

Table 2: Paired-Sample t -Tests for Residence Life Learning Outcomes

Variable	N	PRE-COLLEGE		CURRENT		t
		Mean	SD	Mean	SD	
Civic Engagement	186	3.03	.393	3.13	.380	3.68**
Cognitive Complexity	186	3.11	.386	3.21	.375	4.03**
Communication	186	2.78	.448	2.99	.441	7.57**
Conflict Management	186	2.58	.502	2.81	.461	7.53**
Humanitarianism	185	2.83	.545	3.02	.568	3.31**
Knowledge Acquisition & Application	185	2.78	.531	2.86	.545	1.60

** $p < .01$

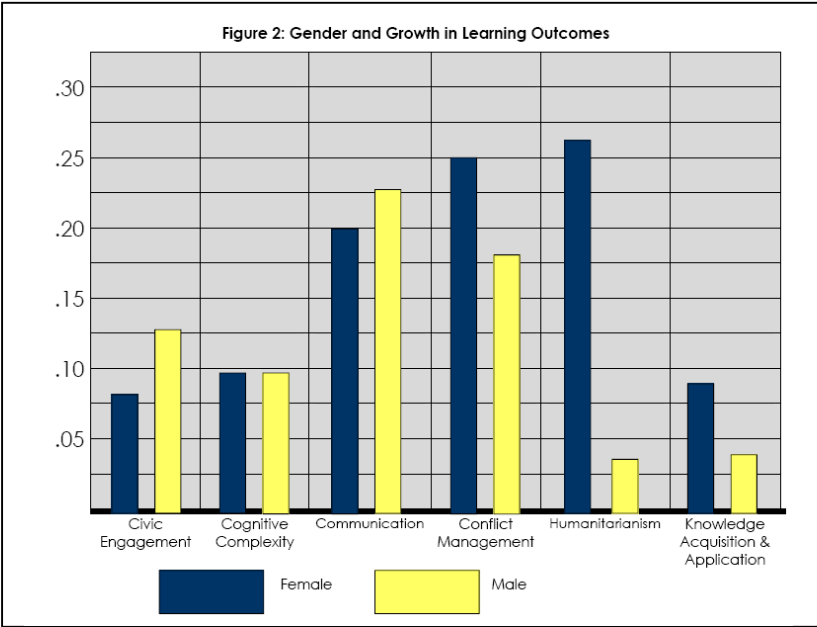
Gender Differences in Learning Outcomes

Women reported significant growth from pre-college to current levels for all outcomes except Knowledge Acquisition & Application. On the other hand, men only reported significant growth in four of the six outcomes measured. These results suggest that women make more progress in learning around identity and diversity issues than men through their first two years of college. However, when comparing average growth from pre-college to current outcome levels (calculated by subtracting pre-college levels from current outcome levels) no significant differences were exhibited between men and women.

Table 3: Paired Sample t -Tests for Residence Life Learning Outcomes by Gender

	Variable	N	PRE-COLLEGE		CURRENT		t
			Mean	SD	Mean	SD	
Female Students	Civic Engagement	125	3.09	.391	3.17	.384	2.37*
	Cognitive Complexity	125	3.13	.393	3.23	.388	3.27**
	Communication	125	2.81	.401	3.01	.417	5.76**
	Conflict Management	125	2.57	.498	2.82	.465	6.78**
	Humanitarianism	125	2.83	.526	3.09	.559	3.79**
	Knowledge Acquisition & Application	124	2.79	.495	2.87	.518	1.73
Male Students	Civic Engagement	59	2.91	.380	3.04	.364	2.91**
	Cognitive Complexity	59	3.07	.376	3.17	.350	2.30*
	Communication	59	2.76	.509	2.98	.493	4.76**
	Conflict Management	59	2.62	.516	2.80	.462	3.29**
	Humanitarianism	58	2.83	.590	2.87	.569	.329
	Knowledge Acquisition & Application	59	2.78	.603	2.82	.609	.343

** $p < .01$ * $p < .05$



No significant differences were found between men and women when comparing growth from pre-college to current levels in learning outcomes.

Differences in Learning Outcomes by Semesters Lived On-Campus

Students who had lived on-campus for three to four semesters exhibited significant growth from pre-college to current levels in all six outcomes whereas students who had lived on-campus for two semesters or less exhibited significant growth in the Communication and Conflict Management outcomes only. It appears that students make strides in learning to communicate and manage conflict in their first year on campus and continue to make strides in all six types of learning by the time they complete part or all of their second year.

Table 5: Paired Sample *t*-Tests for Residence Life Learning Outcomes by Semesters Lived On-Campus

	Variable	N	PRE-COLLEGE		CURRENT		<i>t</i>
			Mean	SD	Mean	SD	
1-2 Semesters	Civic Engagement	94	3.05	.407	3.08	.367	.744
	Cognitive Complexity	94	3.16	.396	3.20	.382	1.43
	Communication	94	2.75	.475	2.93	.464	4.35**
	Conflict Management	94	2.60	.550	2.74	.518	3.24**
	Humanitarianism	93	2.89	.550	2.96	.520	.872
	Knowledge Acquisition & Application	94	2.81	.567	2.84	.616	.312
3-4 Semesters	Civic Engagement	92	3.01	.381	3.19	.388	4.50**
	Cognitive Complexity	92	3.06	.370	3.21	.369	4.24**
	Communication	92	2.82	.419	3.06	.408	6.50**
	Conflict Management	92	2.56	.449	2.88	.382	7.83**
	Humanitarianism	92	2.77	.537	3.09	.609	3.78**
	Knowledge Acquisition & Application	91	2.75	.491	2.88	.463	2.30*

**p<.01 *p<.05

Residence Hall Environmental Factors Relationships with Residence Life Learning Outcomes

Various residence hall environmental factors were significantly correlated with growth in learning outcome levels. The most highly correlated outcomes with environmental factors were Communication and Humanitarianism, which were significantly correlated with seven and eight of the fourteen environmental factors, respectively. Correlations between various environmental factors and outcome growth levels can be found in Table 6.

Table 6: Pearson r Coefficients for Relationships between Learning Outcomes and Residence Hall Environmental Factors

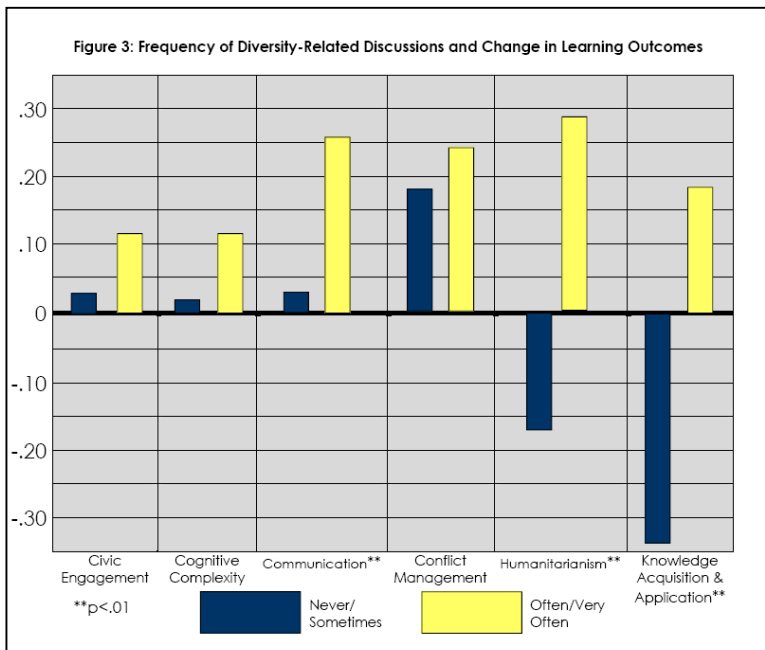
Environmental Factors	Civic Engagement	Cognitive Complexity	Communication	Conflict Management	Humanitarianism	Knowledge Acquisition & Application
Semesters Lived On-Campus	.15*	.10	.07	.20**	.13	.08
Residence Hall Climate	.11	.15*	.20**	.08	.21**	.21**
Env't - Academic Achievement	.13	.11	.13	.10	.10	.10
Env't - Building Relationships	.08	.02	.22**	.20**	.16*	.03
Env't - Personal Development	.03	.05	.17*	.12	.14	.20**
Mentor - RD	.13	.12	.19**	.18*	.29**	.16*
Mentor - RA	.08	.10	.17*	.08	.22**	.12
Mentor - Student	.14	.10	.17*	.19**	.29**	.22**
Programs Attended	.13	.07	.04	.17*	.24**	.07
Respect for Others in Community	.08	.11	.07	.13	.11	.13
Relationship w/ Roommate Quality	.08	.03	.11	.11	.08	.15
Acquaintance w/ Others in Section	.06	-.01	.05	.09	.07	.04
Sense of Community	.18*	.07	.10	.13	.19**	.04
Diversity Discussions Scale	.08	.14	.26**	.10	.23**	.30**

**p<.01 *p<.05

Mentoring relationships within a residential community were significantly positively correlated to growth in learning outcomes for 10 of 18 possible relationships. On the other hand, three environmental factors addressing relations with others within the community (perceived levels of respect for others in the community, relationship quality with ones' roommate(s), and level of acquaintance with others in ones' section or house) produced no significant relationships with growth in outcome levels. While relationships with peers probably lead to more satisfaction with ones' living situation, it appears they do not significantly relate to growth in these specific outcomes. On a broader level, an inclusive residence hall climate significantly correlates with growth in learning outcomes for four of the six outcomes. In addition, three of six outcomes were significantly correlated with increased discussions around diversity-related issues.

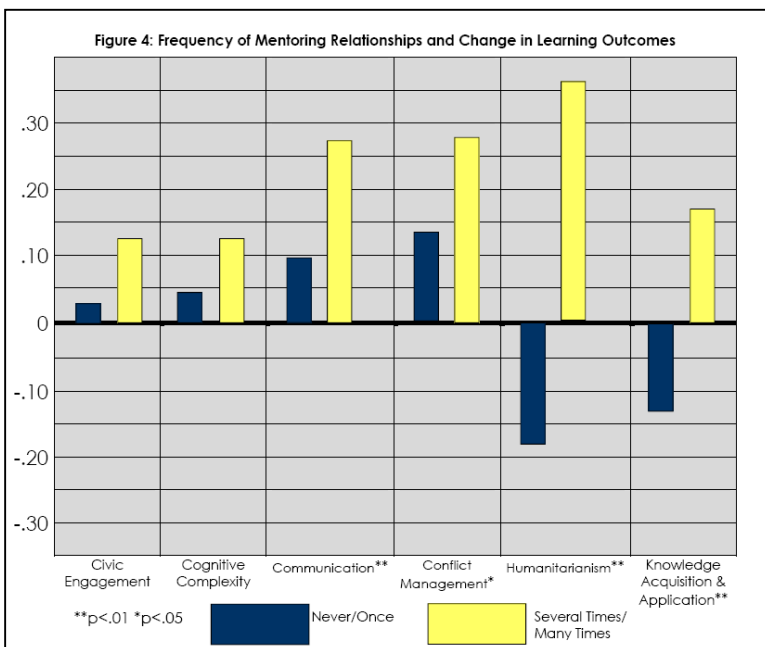
Residence Hall Environmental Factors Influence Growth in Learning Outcomes

The fourteen environmental factors of residence hall living together account for 8% to 21% of overall variance found in residence life learning outcomes. It is clear that these factors as a whole have an effect on the growth in learning outcome levels. These factors significantly account for overall variance of four outcomes: Humanitarianism (21%), Knowledge Acquisition and Application (17%), Conflict Management (14%), and Communication (13%).



Diversity-Related Discussions

Providing space and opportunity for dialogue around diversity-related issues appears beneficial as growth in Communication, Humanitarianism, and Knowledge Acquisition & Application was significantly greater for students who participated in diversity-related discussions often or very often. It is particularly interesting to note that students who rarely participated in diversity-related discussions actually decreased in levels of Humanitarianism and Knowledge Acquisition & Application from pre-college to current levels. Regressions show that participating in diversity-related discussions was a significant predictor to growth for both Knowledge Acquisition & Application ($\beta = .21$) and Communication ($\beta = .19$).

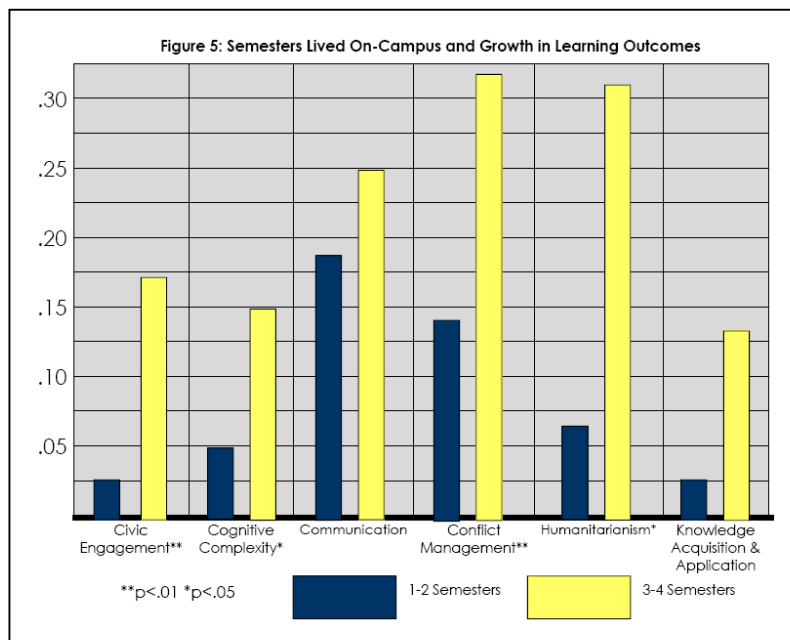


Mentoring Relationships

Students who engaged in mentoring relationships exhibited significant growth in Communication, Conflict Management, Humanitarianism, and Knowledge Acquisition & Application, suggesting benefits from the fostering of communities allowing students to seek out and engage with mentors. Similarly to participation in discussions around diversity, students who rarely or never engaged in a mentoring relationship decreased from pre-college to current levels for Humanitarianism and Knowledge Acquisition & Application. Regressions showed that mentoring relationships with resident directors ($\beta = .20$) and fellow residents ($\beta = .19$) significantly contributed to growth in Humanitarianism.

Semesters Spent On-Campus

Students who lived on-campus for three to four semesters exhibited significantly greater growth in four learning outcomes: Civic Engagement, Cognitive Complexity, Conflict Management, and Humanitarianism. Regressions showed that time spent living in a residence hall while attending college showed a strong influence on development within Civic Engagement ($\beta=.16$) and Conflict Management ($\beta=.19$). This data is not entirely conclusive due to the fact that while living on-campus students are having many experiences outside of their residence hall. However, in regards to the regression analysis, outcomes associated with Civic Engagement and Conflict Management deal predominantly with individual relationships and how one relates to his or her community, two components at the



cornerstone of a residence hall community. Therefore, living in a residence hall could very well be one of the main aspects in time spent at college that influences development within these two outcomes.

Future Directions and Implications

The residential learning experience at Whitman College consists of learning that takes place through community living supported by resources to help make meaning of that experience.

The Residence Life and Housing 2008 Quality of Life and Learning Study has provided a powerful glimpse into some of the growth Whitman College students undergo through living on-campus and the relationships with and effects from various environmental factors on that growth. This study supports the assertion made in *The Whitman College Residential Learning Environment* that learning within residence halls occurs through genuine experiences that come from living within a community while utilizing the resources provided to help make meaning of that experience.

The challenge we now face is to further this body of knowledge and use it to improve the programs we offer in order to improve the learning that takes place within our residence halls. This was the first study of this kind but it will not be the last. Learning outcome assessment and evaluation, utilizing both quantitative and qualitative methods, will and should continue to ensure that the experiences we provide are beneficial to the growth and learning of our students and seek to further the educational mission and vision of the College.

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Appendix A

Learning Outcome Scale Items and Scale Reliabilities

Learning Outcome (VARIABLE NAME)	Scale Items	Pre-College Cronbach α	Current Cronbach α
Students will learn to recognize their personal impact on individual Whitman community members (students, faculty, and staff) and the community as a whole. (CIVIC ENGAGEMENT)	<p>I understand the extent to which the groups I am involved with contribute to the larger community.</p> <p>I believe I have responsibilities to my community.</p> <p>Ordinary people can make a difference in the community.</p> <p>I participate in activities that contribute to the common good.</p> <p>I have the power to make a difference.</p> <p>It is important that I play an active role in my community.</p> <p>There is little I can do to make a difference in the lives of others.</p>	.78	.82
Students will learn to foresee the consequences of their actions. (COGNITIVE COMPLEXITY)	<p>I can easily predict what will result from my actions.</p> <p>I should be held accountable for my actions.</p> <p>I am aware of how my actions affect others.</p> <p>I think before I act.</p> <p>I hold myself accountable for my own actions.</p> <p>I generally know before I do something whether or not it will hurt someone.</p> <p>Before I act I think through the repercussions of my actions.</p>	.82	.86
Students will learn to communicate thoughts and feelings effectively. (COMMUNICATION)	<p>I try to ensure that others around me are aware of what I am feeling.</p> <p>I can verbally communicate how I am feeling in most situations.</p> <p>I can easily convey what I am thinking at any given time.</p> <p>I can easily convey what I am feeling at any given time.</p> <p>I think through what I want to say before I say it.</p>	.70	.82
Students will learn to effectively manage and deal with conflict. (CONFLICT MANAGEMENT)	<p>If I am upset with someone I usually avoid talking to him or her.</p> <p>It is important for me to address conflict when it arises.</p> <p>I prefer to resolve conflict through face-to-face discussion.</p> <p>If I am unhappy with the actions of a friend I generally don't say anything</p> <p>If I am frustrated with my living situation I talk to my roommate about it.</p>	.80	.78
Students will learn to understand their personal identity and how it relates to their community. (HUMANITARIANISM)	<p>Since coming to college, I have become aware of the complexities of inter-group understanding.</p> <p>I have gained a greater commitment to learning about my identity since coming to college.</p> <p>Since coming to college, I have learned a great deal about other groups and cultures.</p>	.61	.76
Students will learn to use knowledge gained from classroom and extracurricular experiences and apply it to their residence hall community living. (KNOWLEDGE ACQUISITION & APPLICATION)	<p>I have discussions with other students in my residence hall about class ideas and topics.</p> <p>I have applied course material to my experience of living in the residence halls.</p> <p>Things I have learned in class have helped me to learn through my residence hall experience.</p> <p>My classroom learning has given me greater control over my life within my residence hall.</p>	.80	.83

Ital. - Reverse-scored items

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