

Baylor University

From the Selected Works of Rishi Sriram, Ph.D.

2020

The development and validation of an instrument measuring academic, social, and deeper life interactions

Rishi Sriram



Available at: https://works.bepress.com/rishi_sriram/51/



PROJECT MUSE®

The Development and Validation of an Instrument Measuring Academic, Social, and Deeper Life Interactions

Rishi Sriram, Cliff Haynes, Joseph Cheatle, Christopher P. Marquart, Joseph L. Murray, Susan D. Weintraub



Journal of College Student Development, Volume 61, Number 2, March-April 2020, pp. 240-245 (Article)

Published by Johns Hopkins University Press

➔ For additional information about this article

<https://muse.jhu.edu/article/752979>

The Development and Validation of an Instrument Measuring Academic, Social, and Deeper Life Interactions

Rishi Sriram

Christopher P. Marquart

Cliff Haynes

Joseph L. Murray

Joseph Cheatle

Susan D. Weintraub

Within higher education in the United States, there is growing interest in learning communities, institutional programs designed to bring groups of students together through shared educational experiences, often over an extended period of time and in a variety of settings. Although such initiatives date back to the early days of the 20th century (Smith, MacGregor, Matthews, & Gabelnick, 2004), their recent resurgence coincides with their recognition by the Association of American Colleges and Universities as a high-impact educational practice based on their link to student engagement (Kuh, 2008).

While the nomenclature to describe learning communities within residence halls is vast, Inkelas, Jessup-Anger, Benjamin, and Wawrzynski (2018) use the term *living-learning communities* (LLCs) for initiatives combining academic activities with the residential experience. The success of these programs is based, in part, on the types of interactions that LLCs create among students, faculty, and staff. Traditionally, student interactions have

been bifurcated into two categories based on either social or academic integration (Tinto, 1993). More recent research based on positive psychology emphasizes overall well-being and meaning making for students (Schreiner, Louis, & Nelson, 2012). Sriram and McLevain (2016) proposed *deeper life interactions* as a third category for understanding student interactions and the college student experience. They described these interactions as encounters that reflect a level of engagement on a more personal level and that prompt critical thinking about meaning, values, and purpose. To further explore the nature and depth of students' engagement with peers, faculty, and staff within LLCs we developed an instrument for gauging students' interactions.

THE IMPORTANCE OF STUDENT INTERACTIONS IN LLCs

Compared to the benefits found for students living in traditional residence halls, LLCs encourage more frequent and substantive levels

Rishi Sriram is Associate Professor and Associate Chair for Higher Education at Baylor University. Cliff Haynes is Clinical Assistant Professor at the University of Florida. Joseph Cheatle is Associate Director of the Writing Center at Michigan State University. Christopher P. Marquart is Assistant Dean of Student Life at St. Lawrence University. Joseph L. Murray is Associate Professor of Education at Bucknell University. Susan D. Weintraub is Director of Residential Life at Saint Anselm College. Research supported by the 2017–2019 Research Seminar on Residential Learning Communities as a High-Impact Practice, a multi-institutional research initiative hosted by Elon University's Center for Engaged Learning.

of interaction among students, faculty, and staff (Kuh & Hu, 2001; Soldner & Szelenyi, 2008). Students report that LLCs promote meaningful and fulfilling relationships with faculty and staff (Wawrzynski, Jessup-Anger, Stolz, Helman, & Beaulieu, 2009) and increase perceptions of faculty caring (Blackhurst, Akey, & Bobilya, 2003), leading to increased confidence and motivation (Komarraju, Musulkin, & Bhattacharya, 2010). For some students, the context of interactions with faculty, more than the nature of these interactions, makes a difference with respect to college satisfaction (Cotten & Wilson, 2006). When interactions occur outside of the classroom, they are often incidental—general acknowledgments and greetings—but the type of interaction most beneficial to students tends to be functional, designed to meet a specific purpose (Cox & Orehovec, 2007).

In order for students to be successful, it is critical for them to gain a sense of belonging through both formal and informal relationships (Chambliss & Takacs, 2014). Peer and faculty interactions play a primary role in the positive effects of LLCs (Inkelas et al., 2018), which provide an ideal environment for these relationships to flourish, fostering a community where students can form connections that promote a sense of belonging (Spanierman et al., 2013). Students who live in LLCs are more likely to be engaged in campus activities (Inkelas et al., 2018), to perceive their residential environment as more supportive (Inkelas et al., 2018), and to report higher levels of social support and comfort in discussing personal problems (Domizi, 2008). LLCs also impact the ways in which students engage with one another in the classroom, as students are more likely to contact peers on academic work and engage in group projects (Domizi, 2008; Stassen, 2003).

These findings are reinforced by the most recent multi-institutional study on LLCs,

the Assessment of Collegiate Residential Environments and Outcomes (ACREO). According to Mayhew, Dahl, Hooten, Duran, Stipeck, and Youngerman (2018), students who live in LLCs report a stronger perception of academic support systems. Findings from ACREO indicate desirable social outcomes for students who live in LLCs, who report higher levels of peer interaction, cocurricular engagement, and sense of support.

LLCs foster the kinds of interactions that benefit college students broadly. In his classic work, Tinto (1993) conceptualized two forms of integration—social and academic—both of which he linked to student retention. The limitation of this two-category theoretical framework is that it fails to capture more personal interactions—around meaning, values, and purpose—that do not fit the social or academic categories. Although our research measures social and academic interactions, the focus of our investigation is on deeper life interactions, defined by Sriram and McLevain (2016) as interactions “that occur around life’s big questions and meaning-making” (p. 605). Previous scholars have advocated for the importance of meaning making and purpose for college students, sometimes referring to this concept as *spirituality*. For example, according to Parks (2011), students cannot thrive unless they make meaning of their experiences. Linking meaning making to the concept of a spiritual quest, Astin, Astin, and Lindholm (2011) found that students’ propensity for such self-reflection was positively related to their interactions with faculty. Additionally, Clydesdale (2015) encouraged college administrators and faculty to engage college students in sustained conversations around purpose while nurturing the examined life.

Sriram and McLevain (2016) demonstrated that these deeper life interactions represent a valid construct that should be measured independently of social and academic inter-

actions. Sriram and McLevain's research is limited, however, to student–faculty interactions in communities that have faculty in residence. Extending their research, Beckowski and Gebauer (2018) found that nonresidential learning communities can also cultivate deeper life interactions between faculty and students. There is no existing instrument, however, that measures the academic, social, and deeper life interactions among student peers, faculty, and staff. Academic and social interactions are well established in the literature, but there is less research investigating and defining deeper life interactions around meaning, values, and purpose. While previous scholars have articulated the importance of such concepts as flourishing, thriving, and engagement (Kuh, 2008; Schreiner et al., 2012), they have not necessarily described what interactions led to these outcomes. This gap in the literature may be due, in part, to limitations in the available instrumentation for quantifying variations in the types of interactions among students, faculty, and staff.

METHOD

Basing our conceptual framework on Sriram and McLevain's (2016) model, we developed a 61-item instrument—The Academic, Social, and Deeper Life Interactions Instrument—intended to measure 9 distinct latent variables. In the survey, participants indicate their level of agreement with a declarative statement representing 1 of these 9 latent variables using a 6-point Likert-type scale (from *strongly disagree* to *strongly agree*). The three primary categories of the survey were academic interactions (e.g., “There are other students at my institution I can study with”), social interactions (e.g., “There are other students at my institution I have fun with”), and deeper life interactions (e.g., “I have discussions with other students that cause me to examine or reflect on my own beliefs or values”). Each of these categories

has a separate scale to measure interactions with peers, interactions with faculty, and interactions with staff, thus forming 9 scales.

We administered the instrument to students in LLCs at 6 institutions, located in 6 states representing the Southwest, Southeast, Midwest, and Northeast regions of the US. Four of the institutions were private, and 2 were public universities; 3 were classified as doctoral universities, and 3 were classified as baccalaureate institutions. The survey was administered by e-mail from a faculty or staff member of each institution to members of multiple residential communities on that campus. Of the 4,526 undergraduate students who received the survey, 938 responded at least in part (20.7% response rate), and, after removing incomplete responses, we retained 654 complete responses that we used for data analysis.

Study participants who provided demographic information had a mean age of 19 years. First-year students represented 58.2% of those who provided classification information, followed by sophomores (13.5%), juniors (10.9%), and seniors (8.1%). Students who transferred to their current institution made up 2.1% of the respondents. Regarding gender, 24.8% identified as men, 68.2% identified as women, and 0.6% identified as trans. Regarding sex, 27.8% identified as male, 66.1% identified as female, and 0.6% identified as trans. Those who identified as LGBTQIA comprised 9.0% of our respondents. Races and ethnicities represented in the study included American Indian / Alaska Native / Native Hawaiian (0.8%), Asian / Asian American / Pacific Islander / South Asian (7.8%), Black / African American (2.7%), Hispanic/Latina/Latino (4.9%), multiracial/multiethnic (2.4%), White / Caucasian / European American (70.1%), and other (1.2%). International students comprised 3.0% of our participants.

RESULTS

We conducted a principal components analysis to evaluate the validity of our instrument and to further inform our conceptual framework. This exploratory factor analysis allowed us to determine if the survey items we constructed, based on our review of literature, were indeed measuring our initial list of 9 latent variables related to academic, social, and deeper life interactions. Within the principal components analysis, we measured shared variability through communalities, eigenvalues, and a component matrix with an orthogonal rotation. The communalities ranged from .50 on the lowest variable to .85 on the highest variable, with .75 representing the average communality. Factors with an eigenvalue greater than 1 were retained, which left us with 9 remaining factors. We then studied the rotated component matrix and scree plot to further determine the validity of our factors. We ultimately decided to move forward with only 8 latent variables (factors) because the ninth initial factor loaded few items above .50. As a double check, we also conducted this analysis using an oblique rotation and found similar results. Correlations among factors ranged from small (.24) to moderate (.58), with the largest correlation between social interactions with peers and deeper life interactions with peers.

Generally, the principal components analysis validated our initial conceptualization of latent variables, with academic interactions, social interactions, and deeper life interactions serving as the major categories. Furthermore, the analysis verified these three categories regarding students interacting with other students. When it came to student interactions with faculty and staff, however, the factor analysis sometimes blended faculty and staff together, while at other times it kept them distinct. After examining the specific items that loaded onto each factor, we labeled our 8 latent

variables as follows: (a) academic interactions with peers, (b) academic interactions with faculty, (c) academic interactions with staff, (d) social interactions with peers, (e) social interactions / greetings with faculty/staff, (f) social interactions / time with faculty/staff, (g) deeper life interactions with peers, and (h) deeper life interactions with faculty/staff.

Results demonstrated construct validity for scales independently measuring academic interactions with peers, faculty, and staff; however, with social interactions the results were surprising. The scale measuring social interactions with peers had construct validity, but scales measuring social interactions with faculty and staff were not independent. Instead, faculty and staff were combined and then separated based on the type of social interaction. We labeled these two types greetings and time. The greetings scale measured student interactions with faculty/staff that were superficial in nature, such as casual conversations or simply exchanging greetings. The time scale measured student interactions with faculty/staff that required a time commitment, such as hanging out or sharing a meal. Deeper life interactions were divided into two subscales with construct validity: one measuring deeper life interactions with peers and one measuring deeper life interactions with faculty/staff combined.

We measured the internal reliability of each scale by analyzing Cronbach's alpha, with scores above .7 considered acceptable (Sriram, 2017). Each of our 8 scales scored between .89 and .96, indicating excellent reliability. The refined survey consists of 61 items measuring 8 latent variables. Mean scores were as follows: academic interactions with peers (5.17), academic interactions with faculty (5.16), academic interactions with staff (4.9), social interactions with peers (5.33), social interactions / greetings with faculty/staff (5.14), social interactions / time with

faculty/staff (4.15), deeper life interactions with peers (4.79), deeper life interactions with faculty/staff (3.3).

DISCUSSION

In his foundational work on college student success, Tinto (1993) argued for the importance of students' social and academic integration into the college environment. These two categories have reached paradigmatic status, with little critique in the literature of whether these two categories continue to adequately capture the student experience. In their psychometric study, Sriram and McLevain (2016) organized student–faculty interactions into three categories: academic interactions, social interactions, and deeper life interactions. While Sriram and McLevain examined only interactions between students and faculty, we created our instrument to additionally measure students' interactions with peers and with staff. Although the effects of programs created by staff are well researched, studies involving direct interactions between students and staff are a particularly underresearched area in higher education.

These results lead to four important conclusions. First, this study builds upon the work of Sriram and McLevain (2016), demonstrating that deeper life interactions is a construct that can and should be measured independently of academic and social interactions. Second, academic interactions can and should be measured separately as interactions with peers, faculty, and staff. This finding suggests that students perceive academic interactions with faculty separately from academic interactions with staff; students recognize the difference. Third, social interactions with faculty and staff are not perceived independently; however, the type of social interactions—whether the interactions involve casual exchanges or a commitment of time—

do matter. Fourth, deeper life interactions with faculty and staff are also not perceived independently. Students know and feel a difference between deeper life interactions with peers and deeper life interactions with faculty or staff, yet students do not further distinguish between faculty and staff when engaging in these interactions.

These findings could have particular implications for the work of student affairs professionals and for collaboration between student affairs and faculty. Because students did not differ in their responses to the faculty and staff items related to social interactions and deeper life interactions, separate factors were not created for faculty and staff. These findings suggest that, in social and deeper life interactions, students do not distinguish between faculty and staff campus roles. Students did differ in their responses between faculty and staff items related to academic interactions, suggesting that faculty and staff play different roles in this category of interaction.

Although distinguishing among academic, social, and deeper life interactions is an important first step, future research can illuminate the ways in which these three categories impact the college student experience. Such studies can extend this research beyond LLCs as well (Beckowski & Gebauer, 2018). With quantitative studies researchers can examine to what extent academic, social, and deeper life interactions influence outcome variables of interest, such as student engagement or sense of belonging. Moreover, quantitative researchers can examine how peer interactions impact variables of interest in comparison with faculty or staff interactions. Qualitative studies, on the other hand, can provide in-depth understanding of the ways in which academic, social, and deeper life interactions can foster thriving, flourishing, and other important outcomes of the college experience.

Correspondence concerning this article should be addressed to Rishi Sriram, Baylor University, One Bear Place 97312, Waco, TX 76798; Rishi_Sriram@baylor.edu

REFERENCES

- Astin, A. W., Astin, H. S., & Lindholm, J. A. (2011). *Cultivating the spirit*. San Francisco, CA: Jossey-Bass.
- Beckowski, C. P., & Gebauer, R. (2018). Cultivating deeper life interactions: Faculty–student relationships in a nonresidential learning community. *Journal of College Student Development*, 59, 752–755.
- Blackhurst, A. E., Akey, L. D., & Bobilya, A. J. (2003). A qualitative investigations of student outcomes in a residential learning community. *Journal of the First-Year Experience and Students in Transition*, 15(2), 35–59.
- Chambliss, D. F., & Takacs, C. G. (2014). *How college works*. Cambridge, MA: Harvard University Press.
- Clydesdale, T. (2015). *The purposeful graduate*. Chicago, IL: University of Chicago Press.
- Cotten, S., & Wilson, B. (2006). Student–faculty interactions: Dynamics and determinants. *Higher Education*, 51, 487–519.
- Cox, B. E., & Orehovec, E. (2007). Faculty–student interaction outside the classroom: A typology of a residential college. *Review of Higher Education*, 30, 343–362.
- Domizi, D. (2008). Student perceptions about their informal learning experiences in a first-year residential learning community. *Journal of the First-Year Experience and Students in Transition*, 20(1), 97–110.
- Inkelas, K. K., Jessup-Anger, J. E., Benjamin, M., & Wawrzynski, M. R. (2018). *Living-learning communities that work*. Sterling, VA: Stylus.
- Komaraju, M., Musulkin, S., & Bhattacharya, G. (2010). Role of student–faculty interactions in developing college students’ academic self-concept, motivation, and achievement. *Journal of College Student Development*, 51, 332–342.
- Kuh, G. D. (2008). *High-impact educational practices*. Washington, DC: Association of American Colleges and Universities.
- Kuh, G. D., & Hu, S. (2001). The effects of student–faculty interaction in the 1990s. *Review of Higher Education*, 24, 309–332.
- Mayhew, M., Dahl, L., Hooten, Z., Duran, A., Stipeck, C., & Youngerman, E. (2018). *2018 assessment of collegiate residential environments & outcomes annual report*. Columbus, OH: College Impact Laboratory.
- Parks, S. D. (2011). *Big questions, worthy dreams: Mentoring emerging adults in their search for meaning, purpose, and faith* (2nd ed.). San Francisco, CA: Jossey-Bass.
- Schreiner, L. A., Louis, M. C., & Nelson, D. D. (Eds.). (2012). *Thriving in transitions*. Columbia, SC: National Resource Center for the First-Year Experience and Students in Transition.
- Smith, B. L., MacGregor, J., Matthews, R. S., & Gabelnick, F. (2004). *Learning communities*. San Francisco, CA: Jossey-Bass.
- Soldner, M., & Szelenyi, K. (2008). A national portrait of today’s living-learning programs. *Journal of College and University Student Housing*, 35(1), 14–31.
- Spanierman, L. B., Soble, J. R., Mayfield, J. B., Neville, H. A., Aber, M., Khuri, L., & De La Rosa, B. (2013). Living learning communities and students’ sense of community and belonging. *Journal of Student Affairs Research and Practice*, 50, 308–325.
- Sriram, R., & McLevain, M. (2016). Developing an instrument to examine student–faculty interaction in faculty-in-residence programs. *Journal of College Student Development*, 57, 604–609.
- Sriram, R. (2017). *Student affairs by the numbers: Quantitative research and statistics for professionals*. Sterling, VA: Stylus.
- Stassen, M. L. A. (2003). Student outcomes: The impact of varying living-learning community models. *Research in Higher Education*, 44, 581–613.
- Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition* (2nd ed.). Chicago, IL: University of Chicago Press.
- Wawrzynski, M. R., Jessup-Anger, J. E., Stolz, K., Helman, C., & Beaulieu, J. (2009). Exploring students’ perceptions of academically based living-learning communities. *College Student Affairs Journal*, 28(1), 138–158.