Developing an instrument to examine student-faculty interaction in faculty-in-residence programs

Rishi Sriram
Melissa McLevain, Virginia Polytechnic Institute and State University

Available at: https://works.bepress.com/rishi_sriram/36/
Developing an Instrument to Examine Student–Faculty Interaction in Faculty-in-Residence Programs

Rishi Sriram, Melissa McLevain

Journal of College Student Development, Volume 57, Number 5, July 2016, pp. 604-609 (Article)

Published by Johns Hopkins University Press
DOI: 10.1353/csd.2016.0065

For additional information about this article
https://muse.jhu.edu/article/626129
Developing an Instrument to Examine Student–Faculty Interaction in Faculty-in-Residence Programs

Rishi Sriram  Melissa McLevain

Research highlights student residential communities as environments rich in potential for the development of student–faculty relationships and related learning outcomes (Garrett & Zabriskie, 2003; Golde & Pribbenow, 2000; Kuh & Hu, 2001; Mara & Mara, 2010). One attempt to encourage student–faculty relationships is to place faculty homes in student residential communities (Sriram, Shushok, Scales, & Perkins, 2011). These faculty-in-residence programs are intended to promote positive student outcomes by amplifying the informal and formal interactions between students and faculty. Faculty-in-residence programs are a distinct feature of residential colleges (Ryan, 2001), but more recently, institutions of higher education have created more opportunities for faculty to reside in various types of learning programs, including theme housing and first-year experience communities. Within the context of this study, faculty-in-residence are defined as faculty members who live in a residential community full-time with their family and seek to actively contribute to the development of students within the community. However, little has been done to examine the effects of faculty-in-residence programs or to develop a theoretical model explaining different types of student–faculty interactions within these programs.

Faculty-in-residence programs aim to contribute positively to learning outcomes such as student persistence and holistic development (Cotten & Wilson, 2006; Kuh & Hu, 2001; Garrett & Zabriskie, 2003). Students have much to gain from both informal and formal interactions with faculty, even if they are not explicitly aware of the benefits (Cotten & Wilson, 2006; Umbach & Wawrzynski, 2005). Substantive student–faculty interactions that are high in both quality and frequency are shown to have the greatest impact on student learning outcomes (Cox & Orehovec, 2007; Kuh & Hu, 2001). However, as Kuh & Hu (2001) suggest, “. . . for most students most of the time, the more interactions with faculty the better” (p. 329).

When faculty repeatedly initiate contact within the student environment (e.g., residence hall or dining hall), students report that student–faculty barriers decrease as students increasingly perceive the faculty member as a more relatable person (Cox & Orehovec, 2007; Mara & Mara, 2010). Faculty-in-residence programs should significantly and positively impact the student experience, but little has been done to examine student–faculty interactions in communities with faculty-in-residence programs. This study

Rishi Sriram is Associate Professor and Graduate Program Director for Higher Education and Student Affairs at Baylor University. Melissa McLevain is Resident Learning Coordinator at Virginia Tech.
reports the creation and validation of a psychometric instrument developed to examine student–faculty interactions in faculty-in-residence programs.

Conceptual Framework

Similarly to Cotten and Wilson (2006), we initially conceptualized student–faculty interaction in two distinct categories: informal engagement (nonprogrammatic interaction) and formal engagement (programmatic interaction). We found this distinction important because informal interactions represent organic interactions between students and faculty that likely increase as a result of living together, whereas formal interactions represent more structured interactions that require planning an event or program. We expected that both informal and formal interaction would occur in meaningful ways within faculty-in-residence programs.

In addition to distinguishing between informal and formal interactions, we sought to form a typology and continuum of student–faculty interaction. Our framework was informed by Cox and Orehovec’s (2007) qualitative study of faculty involvement within a residential community, from which resulted a continuum of student–faculty interaction that ranges from disengaged (no interaction) to mentoring relationships between faculty and students. We organized student–faculty interaction into 3 distinct categories of engagement, including academic, social, and deeper life interactions. We defined deeper life interactions as those that occur around life’s big questions and meaning-making. Such meaning-making involves awareness of how one composes reality, an ongoing dialogue toward truth, and acting in ways that are satisfying and just (Parks, 2000; Astin, Astin, & Lindholm, 2011). Figure 1 provides a visual representation of our initial conceptual framework.

In addition to the type (formal or informal) and nature (academic, social, or deeper life) of student–faculty interactions, we also sought to examine student awareness and perception of the faculty-in-residence program. We created 4 additional variables to measure student knowledge of the faculty-in-residence position (knowledge); perceived value of the faculty-in-residence position (value); level of comfort in approaching the faculty-in-residence (comfort); and perception of the faculty’s contribution to the norms of the environment (experience).

The conceptual framework presented

<table>
<thead>
<tr>
<th>Academic</th>
<th>Social</th>
<th>Deeper Life</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal Engagement (programmatic)</td>
<td>Formal Academic</td>
<td>Formal Social</td>
</tr>
<tr>
<td>Informal Engagement (nonprogrammatic)</td>
<td>Informal Academic</td>
<td>Informal Social</td>
</tr>
</tbody>
</table>

**Figure 1. Initial Conceptual Framework**
is unique in that it seeks to add to existing 2-factor models of student–faculty interaction which present student–faculty engagement as occurring dichotomously in either the social or academic realm. For example, current literature commonly describes student–faculty engagement as social or substantive (Kuh & Hu, 2001), functional or substantive (Benjamin & Griffin, 2013), or incidental or functional (Mara & Mara, 2010). Our conceptual framework seeks to not only add a third category of student–faculty engagement—deeper life interaction—to the current literature, but also explores student awareness and perception of the faculty-in-residence position through the Knowledge, Value, Comfort, and Experience variables. Ultimately, the awareness and perception variables could be important in determining factors that lead to social, academic, and deeper life interaction.

Methods & Results

Our initial conceptual framework led to the creation of a 73-item instrument, the Faculty-in-Residence Survey, intended to capture the impact of the faculty-in-residence program across these 10 distinct variables: knowledge, value, comfort, experience, informal academic, formal academic, informal social, formal social, informal deeper life, and formal deeper life. Each item asked participants to state their level of agreement with a declarative statement using a 6-point Likert-type scale. We combined traditional demographic questions relating to age, classification, gender, race, ethnicity, and GPA with demographic questions relating specifically to the student’s background and experience in the residential community, including home state, number of visits home per semester, leadership positions within the community, and length of time in community.

We administered the instrument to 2 residential colleges at 2 distinct institutions. Both institutions were research institutions in different regions of the United States. One of the institutions was private, while the other was a state flagship university. The residential colleges at both institutions housed students of all classifications and academic disciplines. Utilizing two distinct institutions (e.g., public vs. private, from two different geographic regions) leads to more generalizability to other faculty-in-residence programs across the United States. The 73-item survey was administered by e-mail from the faculty-in-residence of each community to all students living in each respective residential college. No incentives were offered to participants. Although 291 students responded to the instrument in some degree (25% response rate), we used 143 complete responses for our principal components analysis and included partial responses for a sample size of 227 for our reliability analyses. The remaining 64 responses had too many missing items to include in either analysis.

Participants of the study who provided demographic information included 59 males and 99 females. Of those, 59 were first-year students, 59 were sophomores, 21 were juniors, and 21 were seniors. Participants ranged in age from 18 to 23 years old. Races and ethnicities represented in the study include Asian / Asian American / Pacific Islander / South Asian \((n = 15)\), Black / African American \((n = 6)\), Hispanic/Latina/o \((n = 4)\), Multiracial/ Multiethnic \((n = 2)\), White / Caucasian / European American \((n = 129)\), and other \((n = 4)\).

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 that we constructed, based on our review of literature, were indeed measuring our initial 10 latent variables. Within the principal
components analysis, we measured shared variability through communalities, eigenvalues, and a rotated component matrix with an orthogonal rotation. The communalities ranged from .535 on the lowest variable to .881 on the highest variable, with the majority of variables falling between .70 and .89. Factors with an eigenvalue greater than 1 were retained, which left us with 8 remaining factors. We rejected all items on our rotated component matrix with factor loadings lower than .40. We then studied the rotated component matrix and scree plot to determine which items were most strongly related in an attempt to define a new set of latent variables (factors) based on our survey results. We ultimately decided to move forward with only 5 latent variables (factors), as 3 of the factors that we initially retained loaded very few items above .40.

The principal components analysis suggested that there was not a meaningful difference between formal and informal interactions, as we had originally hypothesized. Further, the analysis failed to isolate Comfort and Experience as distinct variables, despite our original theory. The elimination of the Comfort and Experience latent variables, along with the integration of the formal and informal qualifiers, left us with 5 valid latent variables: knowledge, value, social interaction, academic interaction, and deeper life interaction.

We measured the internal reliability of each scale by analyzing Cronbach’s alpha, with scores above .700 considered acceptable. Each of our 5 scales scored between .835 and .977, indicating excellent reliability. We then shortened 3 of the scales based on our knowledge of theory and the elimination of redundant items. The refined survey consists of 44 items measuring 5 latent variables, each with a Cronbach’s alpha between .835 and .961. Mean scores were as follows: knowledge (4.90), value (4.67), social interaction (4.99), academic interaction (4.55), and deeper life interaction (4.27).

Discussion

The 5 latent variables in our revised survey conceptualize factors related to student–faculty interaction in residential communities with faculty-in-residence. Knowledge is defined as student awareness of the faculty-in-residence position; value is students’ perception of the worth of the investment of resources for the faculty-in-residence position; social interaction comprises casual interactions with the faculty-in-residence; academic interaction is defined as interactions with the faculty-in-residence that relate to intellectual stimulation, connections to other faculty, classes, major, or career; and deeper life interaction represents student interactions with the faculty-in-residence that reflect a relationship on a more personal level (e.g., conversations about relationships, family, spirituality, and meaning-making).

Our final conceptual framework was informed equally by our knowledge of scholarly research on student–faculty interaction and our principal components factor analysis. The 5 factors of student–faculty interaction presented in this study enhance Cox and Orehovec’s (2007) framework that conceptualizes student–faculty interaction in 5 categories of engagement, ranging from disengagement to mentoring. Specifically, the knowledge, value, and deeper life interaction variables offer particularly new and meaningful contributions to the current literature. The knowledge variable suggests the importance of ensuring that students are aware of both the scope and purpose of the faculty-in-residence position. Practically, this means that residence life administrators should partner with faculty-in-residence to ensure that students have opportunities to meet the faculty-in-residence and his or her family, as well as help the student better understand the role of the faculty-in-residence within the community. In response to previous research suggesting that students are likely unaware of the positive
learning outcomes that result from student–faculty interaction (Cotten & Wilson, 2006; Umbach & Wawrzynski, 2005), the value variable provides a means of measuring student perception of the faculty-in-residence position.

The deeper life interaction variable is an empirically based, noteworthy addition to current research. It adds to the work of current scholars who describe student–faculty interaction as occurring in only 2 dichotomous categories (Kuh & Hu, 2001; Benjamin & Griffin, 2013; Mara & Mara, 2010). The deeper life interaction variable encourages campus leaders to remain aware of the potential depth of influence that faculty can have in the lives of students, beyond the parameters described by social and academic interaction. The deeper life interaction variable suggests that faculty have the opportunity to promote student learning through engaging students about life’s big questions and helping them make meaning of their beliefs and experiences (Parks, 2000; Astin, Astin, & Lindholm, 2011).

Results of our analyses surprised us in two important ways. First, informal and formal interactions were not independent constructs that could be measured separately. This finding provides evidence that, although administrators may conceptualize programmatic and informal interactions as separate constructs, students in a residential community with a faculty-in-residence do not make these distinctions. Second, the comfort and experience variables were not independent latent constructs. Items related to those constructs were either absorbed in one of the other 5 validated constructs or removed from the instrument. For example, some of the items intended to measure comfort loaded onto social interaction.

The development of a psychometrically sound survey instrument with factors that measure both student–faculty engagement (social, academic, and deeper life interaction) and student knowledge and perception (knowledge and value) of the faculty-in-residence program creates many opportunities for future research. The revised Faculty-in-Residence Survey can be administered to students in residential communities with faculty-in-residence programs in order to further increase understanding of student–faculty interaction. Conditional effects can be analyzed to determine how students relate to faculty-in-residence based upon gender, race, classification, and other demographics. Moreover, a causal model can be developed to describe the specific ways in which student–faculty interaction occurs within these programs. Finally, additional studies at new campuses can inform the generalizability of the findings from this study.

Conclusion

Extant research demonstrates that student–faculty interaction produces an array of positive student learning outcomes, but few studies examine how student–faculty interaction occurs within faculty-in-residence programs, and no previous study utilizes psychometric methods to seek such knowledge. The survey created in this study provides a tool for faculty and student affairs administrators to evaluate the impact of these programs on students. Moreover, the Faculty-in-Residence Survey provides an increased understanding of students that allows for the creation of a new learning paradigm in which students perceive faculty as mentors in addition to instructors.

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


Yes, No, Maybe So: College Students’ Attitudes Regarding Debt

Desiree D. Zerquera    Brian L. McGowan    Tomika L. Ferguson

We examined college student attitudes regarding debt. Based on focus group interviews with 31 students from 4 different institutions within a Midwestern university system, data analysis yielded a continuum that captures students’ debt approaches while enrolled in college. Findings indicate that students avoided debt completely, made intentional efforts to minimize debt, or fully accepted carrying multiple forms of debt as an integral part of the college-going experience. Implications for practice and future research are discussed.

College student debt has recently garnered an incredible amount of attention in the United States as over 70% of all recent graduates carry loan debt (Reed & Cochrane, 2013). Over the past decade in the US, student debt has swelled from $241 billion to $1.1 trillion (Chopra, 2012; Federal Reserve Bank of New York, 2015).