Essential Encounters: A Study of University Students' Out-of-Classroom Interactions with Academic Staff

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Introduction And Overview

Does university study affect 'outcomes' in students? Or does university study merely coincide with a developmental period in which the same changes would have occurred with or without university attendance? A debate of these issues has been waged in the research on higher education, illustrated by two major studies of student outcomes. The thirty-year Cooperative Institutional Research Project encompassing nearly 500,000 students and 1,300 institutions is the largest, ongoing study of eighteen-to-twenty-two-year-old American university students (Astin, 1993). Pascarella and Terenzini (1991) reviewed all of the research on university effects implemented in the twenty years between 1970 and 1990 -- more than 2,600 studies. Both of these cornerstone works in the research on higher education confirmed that there are a number of changes that occur during university study that cannot be attributed to normal maturation; university attendance is associated with student outcomes. Among the outcomes identified by the research are significant changes in learning and in cognitive development (including general verbal and qualitative skills, oral and written communication skills, intellectual and analytical skills, critical thinking, problem-solving, and intellectual flexibility), modest changes in attitude and values (including values related to intrinsic occupational rewards, political liberalism, and gender roles), and some changes in psychosocial development (including increases in intellectual and interpersonal self-confidence).
In addition to confirming that university study affects outcomes in students, the literature identifies aspects of university study that are associated with the positive outcomes. Consistently and unanimously, the literature has traced students' out-of-classroom interactions with academic staff to the epicentre of positive student outcomes. This paper offers evidence of the essential role that such interactions play in the positive outcomes of university study and the research presented offers a fuller understanding of the factors that encourage or discourage these interactions.

Review of the Literature on Students' Out-of-Classroom Interactions with Academic Staff

As studies of the undergraduate experience have discovered, much of students' university experience falls outside the boundaries of the classroom. It has been estimated that only one-third of university students' waking hours are spent in class or studying, leaving students with at least 70 hours of discretionary time each week (Kuh, Schuh, Whitt, Andreas, Lyons, Strange, Krehbiel, & MacKay, 1991; Boyer, 1987). The research on university student outcomes suggests that when students spend some of their time outside of class with academic staff, for example, in an advising session, as a continuation of class discussion or during office hours, that the effects of those interactions can span a lifetime. Research has shown that students' commitment to completing university study; their intellectual growth and development; their personal development in areas such as autonomy,
independence, and interpersonal skills; and their aspirations for university can be significantly affected by their interactions with academic staff (Pascarella & Terenzini, 1991; Pascarella, 1980; Astin, 1977; Astin, 1993). As a result, some researchers have asserted that the most important teaching takes place outside of class (Wilson, Gaff, Dienst, Wood, and Bavry, 1975).

Research has indicated that students are the primary initiators of student-staff interactions outside of class, so the student perspective, previously unexplored, is essential to understanding how these interactions develop (Kuh, et al, 1991). Correlational data exists on the qualities of academic staff and students most likely to interact out-of-class, but no research has explained the interplay of these qualities that draw students into out-of-class interaction (Wilson, et al, 1975). Also, staff and students have indicated that these potentially influential interactions occur infrequently, a fact with which students report dissatisfaction (Wilson, et al, 1975; Kuh, et al, 1991; Astin, 1993; Follett, Andberg, & Hendle, 1982). As Pascarella, Terenzini, and Blemling (1996) concluded after their extensive review of the literature on out-of-class experiences, "Student-[staff]2 contact and student learning are positively related and it would seem that finding ways to promote such contact is in the best educational interests of both students and institutions" (p. 155).
Research Questions

While there is substantial evidence that student-staff interactions are associated with positive student outcomes, less is known about how these interactions develop and their meaning for students. Since students' perspectives on these interactions remains largely unexplored, the research focuses on students' experiences of their interactions with staff. First, there is a need to know more from students about why they do or do not choose to spend some of their out-of-classroom hours in contact with academic staff. So, the first research question is: Why do students engage or not engage in out-of-classroom interaction with academic staff? Second, there are a number of reasons that students might initiate contact with staff -- which interactions are most likely to yield positive outcomes for students? The second research question is: How do students describe meaningful experiences of out-of-classroom interaction with academic staff? Third, to learn more about these potentially important interactions between students and staff, there is a need to learn more about students' own interpretations of these interactions and whether they affect their college experience. So, the third research question is: Do students report outcomes of their out-of-class interactions with academic staff?

Qualitative Inquiry in Higher Education

Qualitative methods are well suited to explore unanswered questions
about students' nonclassroom interactions with staff. Quantitative studies assessing the impact of student-staff interaction on students has focused on outcome of the college experience, or how students have changed since they were 'input' into the college system and what environments are associated with that change. In contrast, the goal of some qualitative research is to describe the middle step, the 'environment', with a particular focus on students' experiences of that middle step. So, the topic for inquiry shifts from the end product of college experiences to students' assessments and interpretations of the actual experiences. As Whitt (1991) emphasised in her discussion of "artful science",

"Interest in qualitative research is increasing as higher education practitioners and researchers seek to understand the complex qualities and processes of institutions of higher education and their participants, such as learning, growth, culture, and effectiveness and find that conventional science assumptions and quantitative methods are not sufficient to the task" (p. 406).

Research Methods

The setting was a medium-sized research university in the midwestern United States, selected because of its participation in a national, longitudinal study of student learning outcomes. The first phase of the research consisted of a pilot study, implemented to refine the
research questions and the interview protocol. The second phase of the research included expanded research questions, a larger and more diverse sample of respondents and extended data collection, as well as staff respondents and document analysis. The findings of the second phase of research are the focus for this paper.

In the second phase of research, the national study data made it possible to select two groups of undergraduate students in their fourth and final year of study, a 'high' group and a 'low' group, based on students' reported amount of out-of-classroom interaction with staff relative to their peers. Two groups were selected because the goal was to identify reasons that students do not initiate interactions as well as the reasons that they do. In accordance with maximum variation sampling, students were selected to represent both sexes and a variety of cultural backgrounds and undergraduate schools (Lincoln & Guba, 1985).

Data collection consisted primarily of intensive, qualitative interviews with eighteen students, interviewed 3-4 times each during the Fall term of their fourth and final year. Students were asked to reflect on their out-of-classroom interactions with staff, describing specific events and reflecting on the immediate and cumulative impact of those events. For the purposes of the study, out-of-class interactions were defined as any conversation of at least fifteen minutes in length that occurred outside of class meeting time, during office hours, as a continuation of class discussion, in an advising
session, at a departmental event, in the residence hall, etc. The time limit was imposed so that brief exchanges of information such as, "Here's my paper" were excluded; conversations may have begun as brief exchanges but to be included in the study they must have extended beyond that.

Interviews with staff informants and document analysis of internal materials triangulated the interview data and facilitated understanding of the institutional setting. Measures were taken to insure the trustworthiness, or soundness, of the study (eg, by implementing member checks with student respondents to confirm and correct emerging themes and by providing an audit trail of all notes and materials from data collection and analysis) (Lincoln & Guba, 1985).

Data analysis consisted of unitizing and coding with the assistance of FolioVIEWS text-based manager (Lincoln & Guba, 1985; Miles & Huberman, 1984; Weitzman & Miles, 1995). Unitizing involved identifying each of the smallest pieces of information in the interviews, whether the unit was a phrase, sentence, or paragraph. Coding involved naming or labelling the units based on the phenomena they represented and employing constant comparison: a unit was tested for fit with existing codes and in the absence of a fit, a new code was established. Initially, codes were defined narrowly and then similar or related codes that clustered around common ideas were grouped into overarching themes. These themes were combined through analysis to yield the four final research themes: points of contact, student characteristics,
academic staff characteristics, and outcomes.

Findings

The findings of the study provide answers to the three research questions:

Why do students engage or not engage in out-of-classroom interaction with academic staff?

How do students describe meaningful experiences of out-of-classroom interaction with academic staff?

Do students report outcomes of their out-of-class interactions with academic staff?

Factors that Encourage or Discourage Interactions

Three of the research themes -- points of contact, student characteristics and academic staff characteristics -- address the complex processes of how out-of-classroom interactions between students and staff are facilitated or discouraged, answering the first research question: "Why do students engage or not engage in out-of-class interactions with academic staff?"

Points of Contact

Points of contact are settings or environments in which students encountered staff and which influenced the occurrence of out-of-class interactions. Points of contact that had the most influence on whether students would interact with staff outside of class included: classroom environments, students' academic departments, electronic mail, and
informal points of contact.

Classrooms

The size of students' classes was central in determining if they would interact with staff out-of-class. Invariably, large classes evoked a sense of being lost in the crowd and deterred students from initiating interactions with staff, especially in their first year of university.

Students recalled,

"You're just a face - you know, it's the whole numbers thing...There's a sense of being lost. It's so huge."

"I think that relationships with professors outside of the classroom can be difficult in large settings. Large lecture halls it's going to be so difficult to remember the students' names, much less the professor's first name sometimes. You may not feel for any reason, 'Why would I want to get to know this person outside of class?'"

"You go to A01 Chemistry class and it's like 300 people, each person vying for the professor's attention. It seems like you're one in a million."

Not surprisingly, 'large lecture halls' often coincided with lecture-style instruction, which further accentuated students' reluctance to initiate interaction with their staff.
In contrast to large classes, small classes established connections between the respondents and staff, connections that made the respondents feel more comfortable initiating contact with staff outside of class. One respondent explained why he had more out-of-classroom contact with his staff the last year of college,

"My classes have gotten smaller. Earlier ones were the huge ones. Maybe it's because I feel more I'm in the room with the professor."

Another student explained,

"If you're in a huge class and you have a problem and the professor doesn't seem approachable, it's not necessary to go to the professor. You can go to your friends, you can go to the [tutor]. I guess if you're in smaller class, then if you needed to speak to the professor, even if the professor seemed unapproachable, you're still probably going to try."

"Small classes built a two-way connection between students and staff: students felt they knew the staff member better and that the staff member knew them better, both of which made interaction outside the classroom more likely."

"[My classes have] smaller numbers and have more direct contact with the professor when you're in class so you can't ignore them when you're not in class. You have a more mutual idea of each other that automatically lends itself more [to out-of-class interaction with
"In a smaller class, the professor gets to know you faster and you get to know the other students, which makes you discuss all kinds of things. It feeds on itself and makes me more likely to see the professor afterwards."

"In small discussion classes that I've had where the professor actually participates as another member of discussion, you can get a feel for what they're saying and what their ideas are and it's like another student. If there's another student who's saying something that I think is interesting, I might follow up with them after class...You can also get a little better feel for their personality...You can feel like you're relating."

Students reported that their first two years were characterised by large lecture classes -- it wasn't until their third or fourth year that they had regular opportunities to enrol in small classes.

Academic Departments
Respondents often reported that the staff with whom they were most likely to have out-of-classroom interaction were in their academic department and, typically, academic departments were a point of contact that encouraged out-of-classroom interaction. Academic departments created smaller environments within the larger university where students and staff had regular contact and students felt that staff
took a particular interest in their students' progress. However, when students compared their experiences in the sciences and in the arts and humanities, it became clear that a student's choice of academic department could also limit both the frequency and quality of their out-of-classroom interactions with staff. Students noted that, in subjects in the sciences, that they had less out-of-classroom interaction with staff than in the arts and humanities. In addition, the subject material coloured the quality of the interactions: in the sciences, the material did not lend itself to discussion, so out-of-classroom interactions were more likely to focus on an exchange of information than an exchange of ideas.

"I guess it's just the mentality of an engineering major is very different from the mentality of other majors...Everybody has their mechanical pencils, everybody has their mechanical erasers. You have to be really neat and you have to be really concise...and it reflects in the way that we approach our professors often because you are not supposed to forget something. It's supposed to be really logical and really easy to get. There shouldn't be a reason why you need to track down your professor for a problem too much. You should just be able to figure it out yourself...And so the reasons for going to see a professor are usually limited to how do I solve this problem or something like that or you completely lost me on this lecture on this one point."

"When you go to a [science] professor and ask a question about DNA, it
doesn't really strike up a conversation. I mean, you get the factual information, you need help understanding what you're doing and that's about it. And they may or may not ask, 'Are you understanding?'...In other places where you can have within-discussion discussion about different ideas, then...it's kind of an exchange of ideas instead of like in the sciences where it's more like a one-way kind of thing."

In contrast to subjects in the sciences, students noted that subjects in the arts and humanities facilitated student-staff collaboration because assigned papers and performances demanded staff input in ways other course requirements such as tests and quizzes did not. So, one of the most commonly cited reasons students initiated interaction with staff was to discuss a paper which included selecting and focusing the topic, locating resources, and getting feedback to improve the next paper. As well, students reported that the in the arts and humanities, out-of-classroom interactions were more likely to focus on an exchange of ideas which drew students into the interaction in a way that interactions in the sciences did not.

"You're more apt to talk to the professor about what you think [in the humanities]. They have more of a fountain of experience and they tell you what they think. As opposed to [science], it's like how I think I should solve a problem and the professor says, 'No, use this short cut.' And that's it. You use them more for how to get short cuts done or how to start this problem out not so much where you try to form an idea and opinion and write a paper or explain it."
"Something like theatre is really conducive [to nonclassroom interaction between students and staff], because you sit there and you get all this through your personality -- your characters, and your emotions and stuff like that. Which you just don't do in science. You talk about bacteria."

So, students reported that the academic department in which they were studying was an important point of contact, with the sciences providing fewer built-in opportunities for out-of-class interaction and fewer opportunities for students to share their ideas or to incorporate themselves into their work. As a result, students' academic departments had implications not only for the quantity of interactions a student had with staff outside of class, but also for the quality of those interactions.

Electronic Mail

Students reported that electronic mail was a recently developed point of contact that encouraged them to interact with staff outside of class:

"Just in the past three years, I remember when I came here as a freshman, none of the professors had their e-mail addresses on the [course outlines] and now all of them do...That shows another channel of communication has really opened up."
E-mail encouraged out-of-class interactions by offering a more convenient mode of communication, a mode that was uniquely able to respond to students' schedules:

It's easier for me to sit in my room and type out my questions than to go to campus and to go to their office hours and schedule it around all the other things I have scheduled.

"When I have an idea that comes to me at three o'clock in the morning, I e-mail the prof and then I go and see them later on."

"I really would e-mail before I would go in [to see staff] but I think that's also because I can never make office hours...Most of the work that I get done is between 10 [p.m.] and 1 [a.m.]. They might be up, but I'm not going to call and obviously they're not going to have office hours at those hours."

"Using e-mail was a less intimidating way for students to initiate interactions because it minimised some of the risks inherent in initiating face-to-face interactions. First, students could reduce their risk of embarrassment because e-mail allowed them to practice what they wanted to say and it provided a buffer between themselves and staff:

One advantage is you can figure out what you want to say before you send it. And you can edit if you want to."

"I've always felt that I communicate a little better on paper than I do
when I'm speaking, so that it allows me to think through more thoroughly what I'm saying."

"Because you're not right there, face-to-face, he can't ask you any trick questions. There's no personal pressure. And if they think what you're asking is silly or something, you can't see their face to react to it."

"I was intimidated [by my professor], so I started my interaction with him over e-mail because, I figured, 'Okay, he knows my name, but he doesn't know that my name goes with my face.' So, I could show up in class every day and he wouldn't know who I was...Even though he'll know my name, he'll know my face, and even if I ask the most ridiculous question in the world, he can't identify me."

E-mail also encouraged out-of-class interaction with staff because it offered a less intimidating way to make the first non classroom contact with staff with the advantage of not having to interrupt staff and possibly catch them at a bad time. Students explained:

"What I have done a lot more recently is I'll e-mail them and then go in and talk to them. So that it's sort of like you have the basics before you ever go talk to them."

"Once you've e-mailed a professor a few times, it's more likely that you'll talk to them later, just because you've kind of broken the ice."
"I just asked it as, 'If you have room, could I come talk to you sometime?' This way I didn't bother them in their office hours and they can respond at their leisure."

"I would rather e-mail a professor than make a phone call because it's not as invasive. He may be doing work, he may be on the other line, and I'm calling him for a question on homework. Whereas e-mail, it can sit and wait and my questions aren't that important. He'll e-mail me back later."

Because e-mail allowed students to 'break the ice' with staff in ways that were less intimidating, e-mail served as a bridge that led to face-to-face interactions between students and staff. And, perhaps the most important implication of the change that has occurred with the introduction of e-mail is that, for students who reported being too intimidated to initiate interaction in person, e-mail afforded an alternative form of communication through which they were able to have frequent out-of-classroom contact with their staff.

Informal Points of Contact

Some of the points of contact that led to out-of-classroom interactions were more removed from the activities of the classroom, such as social events and residential colleges. Encounters in these settings were often positive for students and filtered into other points of contact to make it more likely students would initiate interactions with staff.
in other settings. Students discussed the advantages of having opportunities to interact with staff at social events such as campus lectures, departmental events, or student-receptions:

"I like it because most of the [staff] members are interesting people to me. So I like getting to know them in a social setting. And if you see a professor in a social setting then your relationship in the classroom, it increases exponentially depending on how much more open you feel, showing them your work and asking them questions."

"I think once you are able to talk to a [staff] member [that you meet at a social event] it makes it even easier to talk to somebody in your own department. It's just because you know what the etiquette is, you know what stuff to ask, you feel more comfortable approaching people you see as some kind of authority figure, you mix with them outside and it makes it easier to mix with them in the classroom."

Informal events were not without their challenges or risks for respondents; students talked about the initial awkwardness of interacting with staff in social settings. Students expressed a sense of personal vulnerability, of feeling intimidated approaching authority figures out of the classroom and not knowing where or how to start a conversation. For this reason, it was often helpful if there was a structured starting point for the interaction, whether it was a talk that preceded a reception or an event:
"If it's just a reception, then you go and what are you going to say? Whereas having some sort of talk first, it's the bridge, it gives you something else to talk about, a way to initiate [interaction with staff]...I'm not going to show up and not have anything to say or no basis for conversation."

"If you're going out to a theatre or a play or something, sometimes you can start talking about the play afterward or you can talk about other plays you've seen beforehand. It gives you some kind of context that you start talking."

Residential colleges are living and learning residence halls that were established to promote out-of-class interactions between students and staff. Students reported being pleasantly surprised by the accessibility of staff in the residential colleges and how the colleges offered students unique opportunities for meaningful interactions with staff:

"I was impressed that [in the residential colleges], I could sit and eat with the Dean of Students [of my undergraduate school] and talk to her and she would know who I was eventually, and it just surprised me."

"I had an interesting conversation with [my adviser]. She came over for a reception [in my residential college] and I was talking to her and I was reminding her how she was my adviser and she explained to me why she did things a certain way. That was very meaningful because I
finally understood where she was coming from."

"I got to know a [professor] of mine and he would eat in [my college] so I figured I would go chat with him. It was good that he was in a setting like that because I would approach him at lunch but I might not necessarily have run up to him on the sidewalk. When you have lunch it's a time to go over and happen to sit by him and start to talk about his class or whatever, because that's a social setting where people experience interaction."

By affording a more relaxing setting for students to initiate out-of-classroom interaction with staff, informal points of contact helped increase both the frequency and the quality of students' interactions with staff.

Student Characteristics

The two central student characteristics that determined if students initiated interaction with staff included whether students were new to college and whether they believed they had a need for interaction (e.g., a problem or question). In addition, individual differences emerged in how students initiated interactions with staff.

Newness

Respondents pointed to the importance of providing opportunities for first-year students to interact with staff since this is when respondents reported feeling most intimidated by staff. There were two
salient changes in their experiences as students as they moved from high school to university. First, students had a different sense of themselves as learners. In high school, respondents were among the best and brightest of their peers but at the university where the best and the brightest from other high schools were now their peers, respondents felt a new sense of tentativeness approaching staff.

"Most people were at the top of their class in high school...and you come to a school where you're not necessarily top of the class and you don't really stick out and your personality is maybe not that much better than everybody else's. And so you're not really sure where you're going to fit in with the professor, if you are just this grade or are you a name that goes with this grade, are you a face that goes with the grade...I think the [first year students] don't realise that they can actually go and talk to a professor."

"I expected [staff] to be like the teachers in high school, where they'd be pretty involved at the school -- I knew a lot of the [staff]. And I knew a lot about them, because I was in student council and sports and all that stuff like that. And I got here and it was really hard...I am average, now, if anything."

Second, students experienced a change in their relationships with staff. -- staff seemed impersonal and inaccessible compared to high school teachers.

"When I got to college, it was like a whole different ball game. That
was my first impression and my first expectation of [staff] was that they really can't do too much and I'm going to have to struggle and use my other resources, like tutors and stuff, but I really can't get to know the [staff]."

By their fourth and final year, many of the students were less intimidated by staff, which they attributed to their own maturation as well as to having had positive encounters with their staff:

"I guess I've gotten accustomed to being around very prestigious [staff] members, very intelligent people in their field here. I've gotten a little older. I've learned to respect the professor but to know that they are people like the rest of us. It's an aging thing, as you get older. When you come to college, it's new and after being here four years, things change a little. To a certain extent, there's this developmental process, getting older and stuff."

"I've learned a lot of other things [from my interactions with staff] and it's largely because I was able to interact with some [staff] informally and that gave me the confidence to interact with others."

"I think that once you start talking to [staff] members, it's easier because you know how to approach it the very first time. You know kind of what approach to take whenever you go into their office to talk about something."
It was important for respondents to have positive interactions with staff to increase the likelihood that they would approach staff again in the future. As students reflected on the differences between their approach to staff when they were new to university and when they were in their final year, many of them regretted that they did not overcome their intimidation sooner:

"That's one thing I wish I had done earlier [is interact with my professors]...I wish someone sat me down and told me, "Get a grip, go to your professors." There are plenty of times that I needed to go to my professors that I didn't go because of my own lack of self-confidence, not quite understanding the university system and not being strong enough."

"I wish somebody told me, 'Don't worry at all, go see the professor. If they act like a jerk, then don't worry about it, it's not your fault.' Some are like that and some aren't and you just kind of have to search out the ones who aren't."

"I think at times I was intimidated when I shouldn't have been, looking back on it."

Need

Respondents' experiences also emphasised the importance of staff encouraging students to utilise office hours to discuss course material. This is because students explained that, to be able to approach a staff member, especially the first time, they felt that they
had to have a justifiable reason, such as a question or a problem.

Students commented:

"I'd always felt that if I didn't have a specific question I wasn't going to go in and talk to them and I still really don't because I don't want to waste their time."

"I didn't have much non-class interaction with [my professor] at all. I didn't need to because she taught it so well we didn't need to bother her outside of class. I really appreciated it and I definitely respected her a lot. I always wanted to go up to her and say I loved her class."

As these comments illustrate, without having a demonstrated need, such as a question or a problem, students were reluctant to impinge on staff time outside of class.

Individual Differences

One of the purposes of the study was to determine whether the differences between students with a high and low frequencies of interaction with staff could be explained by varying levels of student interest. It could not since, for many students, their interest did not always translate to out-of-classroom interactions with staff. In fact, among the students with low interactions was a group of students who reported that they did not initiate out-of-classroom interactions with staff because they were not interested, their time was more likely
to be filled with other activities. And the students with the highest frequency of interactions reported a high level of interest, they readily initiated interactions with staff, and their willingness to initiate interactions was undeterred by negative interactions with staff. However, in the middle of the continuum were students who were interested in interacting with staff outside-of-class but they depended on some initiative from staff or they reluctantly initiated interaction but were strongly influenced by staff members' responses to them. Most of the students were in the middle of the continuum, including many among the "low" interactors. For example, these students with low interactions who were interested in out-of-classroom interactions were more likely than students at the high end of the continuum to have been surprised by their limited access to staff when they came to university from high school and to reflect that they felt lost or overwhelmed in large classes:

"I think that when I was coming here I just expected that [staff] would be more approachable or that I'd feel that I could approach them more than what actually happened, just because of what the brochure said, but all the universities say that."

"In a big class, you have those people who will go in and go to office hours and there are other people who just get lost. That was me. I kind of got lost in this big classroom where I just went to lecture every day and the professor could've been a guest lecturer for all that I used him for...It kind of inhibits people."
"You go to A01 Chemistry class and it's like 300 people, each person vying for the professor's attention, it seems like you're one in a million."

Students in the middle of the continuum explained that negative experiences short-circuited their efforts to initiate out-of-classroom interaction.

"I had a bad experience winter quarter with one of the [staff]...I think that hurt me for a long time because I couldn't go to my professors."

"I think sometimes I'm waiting for [staff to initiate contact with me]. One professor disappoints me or is not conducive to talking to them, then it's easier just to let it be."

For these students, a negative outcome from their efforts to initiate out-of-classroom interaction could mean that they experienced a setback in their willingness to initiate out-of-classroom interactions in the future.

Academic Staff Characteristics

There were several ways that academic staff characteristics (qualities of staff members, as they were perceived by the student respondents) affected the occurrence of out-of-classroom interactions. First,
respondents' comments indicated that, in general, they perceived a gap between themselves and staff: staff were separate, distant, at a higher level than students. Students were acutely aware of staff members' dual roles as teacher-scholars which enhanced students' intimidation and their reluctance to encroach on staff research time:

"I never went to his office hours because people kept telling me how nationally famous he was. I knew nothing about economics. I had a really hard time in the class but I wouldn't have gone to see him because I wouldn't want to waste his time."

"I thought I'd just look to see how many papers he's written and it came up to be [more than 50]. I mean, this just boggles the mind...Just your thought of them makes it hard to approach them because they seem so accomplished."

"I assume they are busy...in that you've got your classes that you have to teach, and then when they're over you've got things you have to grade and then you have research or writing that you have to do and you have committee meetings that you have to go to."

Students commented that because of the gap, from a distance staff seemed inaccessible and not quite real:

"Professors are living in a bubble that doesn't extend beyond their office or their teaching classrooms...I think that at a university like
[this] the bubble is there no matter what for all the professors. It's
the question of whether or not they extend out of the bubble."

"[The staff] are movie stars in their field. If a movie star walks in
here, it's expected that we are amazed...the same with professors.
They are geniuses. They are on the cutting edge of their work. They
are the movie stars in [my field]."

The gap between students and their professors was not necessarily
permanent or fixed. There were several factors that determined whether
staff reinforced or dissolved some of the barriers that the gap erected
to out-of-class interaction between students and staff.

Roles as Teachers
Students reported that the classroom was often the forum where staff
initially set the tone for out-of-classroom interaction and that how
staff defined their roles as teachers determined whether students would
initiate out-of-classroom interaction. Students noted that when staff
were committed to and enthusiastic about their teaching, when they
placed a priority on students' understanding of the material, and when
they de-emphasised the student-staff hierarchy, students felt that they
were more approachable outside of class. First, staff who valued
teaching and demonstrated an interest in their subject material engaged
students' interest and communicated an interest in student learning:

"Some professors I feel are just here because they want to be able to
do research. But if the professor is here because they actually want
to teach and they want to educate students [they're more approachable
out of class]."

"He was literally enlivened by [the subject]. He would walk in and
he'd just take off his sweater. And he always took it off over his
head and his hair would go ruffled and he'd smooth it down and he'd go,
'OK.' And he would pull down a blackboard and just start...But he'd
just go for fifty minutes...Maybe it was because he was very
charismatic in class. So there wasn't any fear of going into his
office hours."

"If she feels passionately about something you know that if you feel
passionately about something too that you can go and talk to her. It
makes her seem so much more human and definitely someone that you want
to get to know."

Second, a theme that ran throughout students' comments about staff
with whom they felt comfortable initiating out-of-class interaction was
that these staff emphasised student understanding of the course
material:

"They care about your level of understanding of the material. It shows
that they care more about you, the students, that you're learning, that
they're not here just to teach, they want to make sure you understand."
"He's the type of person that, he won't just give you an answer...he kind of prods you and he makes you think...I feel like he really cared if you were getting along and if you were understanding the material."

The third way in which staff defined their roles as teachers that affected out-of-classroom interactions was the roles staff created for themselves as teachers and for the students as learners, whether they reinforced the dichotomy that students already sensed.

"If a professor thinks they're way above you, they let you know...I remember a professor who -- it was obvious he was speaking down to 250 people at the same time and he knew it. It was just really obvious. You know when someone has an attitude when they can talk down to a room full of people...If they talk down to you in lecture, you're not going to talk to them personally because they're probably going to talk down to you the same way, if not worse."

"I've only had a couple that I have felt completely comfortable going to. Some are kind of -- they come off as kind of intimidating and just like they're not really interested in speaking with you on a normal level. They're always lecturing, even when you go to them, they're still lecturing to you and looking down."

In contrast, staff who elevated students' status as novices by valuing students opinions helped dissolve the barriers created by students' perceptions of the student-staff dichotomy.
"The [staff] that I've had interactions with [out of class], they want to know what students think."

"[Staff who are more approachable out of class] validate the student's opinions and comments and thoughts as well as their own...they give the impression that they care what I have to say."

"[My professor] came up to me and specifically said, 'Well, what do you think about [the speaker] and what she had to say?...[That said to me] 'I have enough respect for you that I want to hear what you have to say about this'...And that's where you start to cross the line into being a contemporary."

Availability

Second, how staff made their time available, evidenced by how they discussed and structured their office hours, affected the occurrence of interactions. Students gauged whether to initiate interaction based on how staff talked about the time they set aside for office hours:

"I'd be much more likely to come in and see someone who was like, 'Yeah, I have my office hours on Tuesday and Thursday, in the afternoon from like 12-5.' I know they're just going to be sitting in there doing work. Whereas a professor who's like, 'You must make an appointment with me,' I know they're going to be sitting there looking at me when I come in the room and be like, 'Yeah, what do you want?"
Ask your question."

"You can just tell by the way they teach. If they say, 'Please come into office hours' ten times a week. Or if they just say, 'Yeah, my office hours are here.' Or they don't even say it at all, it's just on the syllabus and you have to go find it. You can tell -- you kind of get a sense in that way. The kind of vibes you get."

"I've had professors that will just mumble [when their office hours are] and you're like, 'What? Oh, you don't want me to stop by I take it.'"

Then, students got a sense of staff members' actual availability based on how they reacted to students efforts to initiate interactions, as the two contrasting examples below illustrate:

"He makes you feel like you're not bothering him...I just feel like, whenever I talk to him, I don't feel like I'm really wasting his time."

"I wanted to borrow a book that I needed to have, so as I went in he was putting on his coat while I'm asking him to borrow a book, so he said, 'Yeah, I'll bring the book in tomorrow. And here's a couple other names you can look up that would be helpful.' But I would've liked to have had a little bit more conversation with him and asking him somewhat about the book...It wasn't like I wanted to chat about his family...I don't think I'll go back to see [him]."
Relating as 'Real' People

Third, whether staff bridged 'the gap' between students and staff to relate to students as 'real' people affected whether students were willing to initiate out-of-classroom interactions with them. There were a number of ways that staff could relate to students as real people. First, when staff communicated a genuine interest in students as individuals, for example, by inquiring into students' career plans and their academic progress, then those staff seemed more approachable to students than staff whose interests did not extend beyond the subject matter.

"He really is into talking, to helping students. He doesn't just want to help them, he wants to know who they are."

"I know one professor in particular always asks me how everything else is going on my life, and is real concerned about what I'm going to do, what I'm going to do next year."

"One of the most powerful ways that staff communicated a genuine interest in students was to know their names; when staff didn't know students' names, students were discouraged from initiating interaction with them."

"I remember something about one of my labs or an exam and the
professor came up to me after class and said, 'Oh, I have your lab or exam up here,' and knowing who I was...that was very interesting for me and even took me aback that he even knew what my name was."

"I ran into one of my old instructors and I hadn't seen him in like two years...Just in the two minutes that we talked, he remembered my name, remembered what year I was, asked, 'What are you going to do next year?'"

"One quarter I went to office hours a couple of times and my professor didn't know who I was and that was very frustrating for me. I kind of got an attitude and then I didn't go to office hours the next quarter."

Second, in addition to demonstrating to students that they were interested in them as individuals, staff who presented themselves as real people seemed more approachable and students were more likely to initiate out-of-class interaction with them. By allowing the class conversation to extend beyond class material to include the staff members' personal experiences, by demonstrating a sense of humour, by relating to the student perspective, and by inviting students to call them by their first names, staff could seem more like real people. Examples of each of these qualities follow:

"[This professor] often uses his own life examples and telling what he was like in college and he went to [this university]. So, his stories
are even more amusing because they are similar to ours. He seems more accessible because of that."

"If that person has a sense of humour, it makes things a lot easier [to initiate out-of-classroom interaction], because you know that person is a personable type person. If you don't have a sense of humour, you don't not necessarily get along with other people, but you have to have a bit of a sense of humour to get along with people. Life is humorous."

"The things she would talk about -- Seinfeld -- she would talk about when she was in college. You know, she would tell stories, and she would react the way we would react...Everyone felt like they could open up to her more, maybe. They weren't as embarrassed to say things."

"My professor asked me to call her by her first name...So that helps. Then the intimidation factor leaves."

Keeping in mind students’ initial impressions that staff seemed not quite real, living in a 'bubble', it follows that ways in which staff did prove themselves to be real and to be genuine encouraged students to take the risk to initiate out-of-classroom interactions.

Meaningful Interactions

The second research question was: “How do students describe meaningful experiences of out-of-classroom interaction with staff?” Meaningful
interactions are defined as positive interactions that encouraged students to initiate contact with staff again, interactions that related to positive outcomes of interactions, and those that students identified as meaningful in personal and/or academic ways. Qualities of interactions that made them meaningful echo those characteristics of staff that first encouraged students to initiate interactions. First, meaningful interactions were affected by how staff members defined their roles as teachers. When staff actively encouraged students to engage in out-of-class interaction or when they worked closely with students to help students achieve their potential, these efforts yielded meaningful interactions for students. For example, students recounted:

"He would say...'So you're coming to see me in office hours today, right?' I wasn't planning on it but I guess I am...That was my transition from not going to professors [outside of class] and going to professors because he expected me to come."

"So I went to his office hours after I got the paper back, because his comments said he thought I could do better...[I said] 'this is my level of writing. I'm happy with it.'...And he said, 'Well, yes, you are capable of it.' And every time I came back, he said I could do it...because of that, it motivated me."

Second, related to how staff made their time available to students, students' accounts of meaningful interactions included those where the
staff made time to make students a priority out of class and when they made significant investments of their time in students:

"She'd read it and critiqued it and obviously put a lot of time and work into it and gave back brilliant advice...She'd just put in a lot of time when she didn't really have to...She's doing things that she doesn't have to do at a time when she doesn't have to spend time thinking about students."

"He said he wanted to help me work this out...he was helpful in that way and he wanted me to keep him informed and so he was very open to keeping contact with me and that kind of thing...He had no stake in being in contact with me in a sense, he had nothing to gain from it, he just wanted to help me out."

"[Meaningful interactions are] the ones where the professor shows that he or she is going above and beyond the call of duty. The ones that go beyond relating specifically to the paper that I'm working on, where they ask, 'How are things going?' or they spend a lot of time dealing with the paper as opposed to, 'Yeah, that sounds good.'"

Third, when staff related as 'real' people with students, this not only encouraged students to initiate out-of-class interactions with staff, but could also lead to interactions that were meaningful for students. Examples of meaningful interactions when staff related to students as real people included when staff showed an interest in the
student as an individual or when staff were willing to talk about themselves:

"Things like that, those kinds of informal [interactions], after you get the paperwork done, take one or two minutes to see what's going on...that makes me feel good."

"I came in [to talk to him about a summer job] and he wanted to know a lot about me. Like, what were my career aspirations, why was I doing this, what did I want to do, stuff like that...So it was, I guess, his bit of kindness for the day or something...that I would consider meaningful."

"It created more of a while person of who he was, like he was telling me about he and his wife going [abroad]. And the travels that they had done. It was an experience outside of [the university] and how it affected him and the happiness that he had from that experience. It was really a good connection with him because that was something I want also."

"I like that [kind of] interaction [when staff talk about themselves], I think it's really cool when you can talk to a professor just like a normal person."

Whether they related to staff roles as teachers, staff availability, or to staff relating as 'real' people, meaningful interactions shared in
common the fact that they extended beyond an exchange of information which could have occurred in the classroom. Out-of-classroom interactions that were most meaningful were the ones that somehow managed to leave the classroom behind. One student explained the sentiments of many of the respondents:

"The other stuff that you're not going to get from books is where the non-classroom interaction becomes meaningful...I think with most non-classroom interaction, you do end up having some sort of agenda related to class. That's almost unavoidable. But if you can expand beyond that, if you can try to make the weak ties, your strong ties would be the classroom and the weak ties may be that this professor worked in the field in which you are interested...things that would be tangentially or weakly related [to class] would be the most meaningful."

Outcomes

The final research theme relates to outcomes and answers the research question: "Do students report outcomes of their out-of-class interactions with staff?" When students reflected on whether their interactions with staff had affected them, they reported getting "a lot of education" from these interactions, directly connecting the interactions to enhanced learning:

"The most important thing, I think, [about out-of-classroom interaction with staff] is that you can get a lot of education out of it. And then
it will be more than just listening to the lectures. It's more than just reading the book, because you're actually processing and by going in you can process ideas and solve some questions."

"[Out-of-classroom interaction with staff] helps the student learn more. I mean, I've learned a lot more from my papers and things by talking with the professors about it."

"I usually learn the most during those times [when I go to office hours] as opposed to being in class and having a problem and looking it up in the book."

Companion to the enhanced learning that resulted from students' interactions with staff was improved academic performance by the students: they performed better on their assignments which they believed was reflected in higher marks.

An additional outcome students reported was that the interactions with staff softened the initial barrier students felt between themselves and their staff. Students were able to see the staff as more 'real' or 'human' which made them less intimidating and therefore made it more likely that students would initiate interactions again.

"[Through out-of-classroom interaction], you get a more complete picture of the person. It's not just a role any more, it's a person."

"I think that's another reason why I think it's important to get to
know professors because you have to see them as human beings, you have
to see them as not infallible fountains of knowledge, but as people
that work hard, that studied this material and have gained and achieved
this knowledge by studying it, not just because they were born with it,
naturally, gifted."

Interestingly, for some students being able to see the staff as 'human'
facilitated another outcome -- learning. It was important to some
students' learning that they know the staff as people:

"With [my professor], what I learn in his class is so much more than if
I didn't know him, just because I respect him as a human being and his
knowledge. I know that he knows a phenomenal amount of stuff...I
respect what I learn in class that much more."

Out-of-class interactions with staff also enhanced students' self-image
by facilitating a greater sense of confidence in their abilities and by
emphasising that the students were valued members of the university
community:

"The two professors that I established pretty close relationships with
did wonders for my self-confidence. I mean, they sort of convinced me
that I did have half a clue of what I was talking about."

"I think [out-of-classroom interaction with staff has] had kind of a
stimulating effect on me as far as my experiences at [university],
being comfortable in classes as a student...being able, being willing to express myself and my ideas. I think it comes partially from having interactions with [staff] and knowing that they find them valid, that they are looking for that and want that."

"I think [out-of-classroom interaction] can kind of elevate a student to a higher plane, just like the interest...If a person has an interest in a student, he or she can really encourage that student because someone cares about them. And the student will feel that she is valuable."

"If they try to recognise you, let you know that [they know] you're alive, then...you feel important, they have a vested interest in your understanding of the material. If you dropped off the face of the earth, you would be missed."

Some of the outcomes identified by students echo findings of previous research. But because this is the first research to offer an understanding of students' experiences of out-of-classroom interactions, this research illuminates and explains the connection between interactions and student outcomes. For example, other research has identified academic achievement and intellectual development as outcomes of interaction (eg., Pascarella & Terenzini, 1991; Astin, 1993). Respondents in this study explained that not only did out-of-class interactions augment their learning about the material, but that the interactions enhanced students' commitment to their
academic work because they then felt a personal responsibility to the professors.

"I've noticed when I have one-on-one interaction with a [staff] member I feel more personally accountable for the work that I do and more motivated to get really interested."

"This class could potentially be one of the worst classes in my career...But I kinda - I want to do well cause now he knows me so I want to do well on my reports and I want to know what's going on in lab."

Discussion

The findings of the study have a number of implications for practice within higher education.

Points of Contact

Students reported that the size of classes exerted a powerful influence on the occurrence of out-of-classroom interactions with their staff. Because of the connection that previous research has established between student-staff interactions and academic outcomes, this suggests that class size has the potential to affect college student outcomes, such as learning and intellectual development. So, it is important that students have the opportunity to enrol in small classes and the earlier in their university careers the better. It is unfortunate that students in this study reported that the time when they were most intimidated by staff was also the time when they were predominantly in
large, lecture classes, which only served to further enhance their reluctance to approach staff.

Academic departments were important points of contact for out-of-classroom interactions, creating a smaller environment within the larger university where students felt staff demonstrated a genuine investment in them and their progress. Variability in the ability of academic departments to encourage out-of-classroom interaction depended on students’ field of study: students in the sciences reported that their quantity and quality of interactions were lower than those for students in the arts and humanities. It may be useful for staff in the sciences to create structured opportunities for students to collaborate one-on-one with staff, either by inviting students to work in staff laboratories or by requiring projects that require input from staff. The findings of this study also suggest that students in the sciences may need additional encouragement from staff to initiate interactions because of students’ perceptions that their staff expect them to work independently, without input from staff. It was as if students would have demonstrated a personal weakness if they were to initiate out-of-classroom interaction. Finally, since the course material in the sciences may limit out-of-classroom interactions to exchanges of information, staff in the sciences may need to take the initiative to broaden the scope of the interaction to invite students to reflect on their learning in the subject, their academic progress, their career plans or other areas of importance to students.
E-mail is a point of contact not addressed in previous research on student-staff interaction outside of class. The fact that access to e-mail encouraged students who were otherwise reluctant to initiate interaction suggests that institutions that offer e-mail will not only facilitate student-staff interaction already occurring, but may increase the proportion of students benefiting from out-of-class interactions with their staff. E-mail and electronic discussion groups have the potential to extend the boundaries of the classroom, to allow discussions from class to continue beyond scheduled meeting times. This offers a strong incentive for institutions interested in encouraging out-of-classroom learning to provide their students with access to e-mail.

Informal events that provided opportunities for students to interact with staff outside of class, especially those that had some structured starting point, facilitated the process of students seeing staff as more 'real' and 'human' and increased students comfort in initiating out-of-classroom interactions with staff.

Student Characteristics

From an understanding of the student characteristics affecting the occurrence of out-of-classroom interaction between students and staff, it was evident that students were particularly intimidated by staff in their first year when their initial impressions of staff suggested that out-of-classroom interaction would be impossible. Many of the students in the study reported that it wasn't until their third or fourth year
that they had regular interactions with staff outside of class. It is important for universities to provide small, seminar subjects especially for first year students, in order to counteract the predominance of large, lecture classes in their timetable. Or, within a larger lecture subject, it may be useful to schedule small tutorials with first year students or to have office hours reserved especially for first year students. Through such interventions, first year students may have an opportunity to develop their confidence to initiate interaction with staff earlier in their academic career than they might otherwise.

Students reported that, many times, they did not initiate interaction with staff because they did not have a problem or a question. Staff may need to help adjust students’ expectations by encouraging them to initiate interactions to discuss course material, beyond questions or problems, or to discuss subject-related interests or course or career planning. In addition, by creating out-of-classroom opportunities for students to interact with staff (eg, cultural events, paper conferences, field trips) educators can help enhance the number of reasons and opportunities students have for initiating contact with their staff.

One of the purposes of the study was to determine whether the differences in students with a high frequency of interaction and students with a low frequency of interaction could be explained by varying levels of student interest. While some "low" interacting
students reported little interest in out-of-class interactions with staff, most of the students reported a desire to interact with their staff outside of class. Many of the students with low interactions had attempted to initiate interaction but had been discouraged from further interactions by environments or by staff members' responses to their efforts to initiate interaction. It is important for universities administrators to consider environments, staff attitudes and programs that currently exist that might represent barriers to students who would otherwise initiate interaction outside of class.

Academic Staff Characteristics

There were several ways that staff characteristics affected out-of-classroom interaction, including how staff approached their roles as teachers, how they made their time available, and whether they related to students as real people. Each of these demonstrates that a staff member's approach in the classroom sends important signals about their 'approachability' outside of class. This suggests that universities can increase the out-of-classroom interaction and associated benefits for students by considering teacher evaluations in making staffing decisions and by encouraging staff to value their teaching through initiatives such as staff development programs and teaching excellence awards.

When staff made their time available to students, it encouraged students to initiate interaction with their staff. If universities do
not do so already, it is important to strongly encourage staff to hold regular, advertised office hours as a first step towards encouraging students to initiate out-of-classroom interactions and as a signal to students that such interactions are an important aspect of the learning process.

Universities could be innovative by providing seed money for field trips or cultural outings, student-staff lunches or informal social events to facilitate opportunities for students and staff to relate to each other as 'real' people. Students' comments about their most meaningful interactions made it clear that opportunities such as these to extend beyond the formal business of class lead to an increase in quantity and quality of interactions between students and staff.

Student Outcomes

One of the most important findings of the study is that students confirmed that student-staff interactions are at the epicentre of a number of positive student outcomes. Students reported a number of outcomes of their interactions with staff, including enhanced learning and academic performance, enhanced self-image, and a changed view of staff as more 'real' or 'human', which encouraged students to initiate further interactions. Students' comments about the effect of student-staff interaction on their learning offers support for previous research which emphasised that the most important teaching takes place
outside of class (Wilson, et al, 1975). And the fact that positive
interactions encouraged students to initiate further interactions with
their staff stresses the importance and benefits of facilitating
positive interactions between students and staff: the frequency and
quality of students' interactions with staff can flourish if students
have an opportunity to have a positive interaction with just one staff
member.

Conclusion
This study offers the first, in-depth exploration of students' views of
how students and staff navigate the initial distance between them to
interact out-of-class, what qualities of the interactions make them
meaningful for students, and what outcomes students identify from those
interactions. Overall, the findings of this study point to the fact
that the classroom -- it's size, the teaching style, the format -- has
a vitally important effect on whether students are drawn into
out-of-classroom interactions during some of their '70 hours' of
discretionary time each week. Because spending discretionary time in
out-of-classroom interactions is associated with student outcomes such
as learning, self-esteem, and staying enrolled at university, the
benefits of efforts to increase student-staff interaction outside of
class can span a lifetime for students.
Endnotes

1 The terms 'academic staff' and 'staff' are used interchangeably to denote regular, full-time academic staff responsible for teaching or academic advising of undergraduate students.

2 In the U.S., 'faculty' denotes 'staff'. So, references to 'faculty' term have been changed to 'staff', the change indicated by brackets.

References


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