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Elements of Engagement for Successful Learning

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Abstract

In this research we sought to understand student practices, beliefs, and behaviors that led to positive engagement on campus. More specifically, we studied student engagement as a function of the individual within the contexts of classroom and university environment using a basic interpretive approach. First year students from a medium-sized, public, Midwestern university participated in interviews on engagement, the classroom, university, and community contexts. Results suggest that both personality and a sense of self influence students' levels of engagement. Students who had identified life goals and who sought related activities and relationships made greater use of university resources and felt more engaged. We propose ways in which instructors and universities can make simple changes that may help enhance the experience of all students.

Elements of Engagement for Successful Learning

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In this research we sought to understand student practices, beliefs, and behaviors that led to positive engagement on campus. More specifically, we studied student engagement as a function of the individual within the contexts of classroom and university environment using a basic interpretive approach. First year students from a medium-sized, public, Midwestern university participated in interviews on engagement, the classroom, university, and community contexts. Results suggest that both personality and a sense of self influence students' levels of engagement. Students who had identified life goals and who sought related activities and relationships made greater use of university resources and felt more engaged. We propose ways in which instructors and universities can make simple changes that may help enhance the experience of all students. Key Words: Engagement, Basic Interpretive Approach, College Students, Campus Environment, and Instruction

Introduction

College engagement refers not only to involvement in the campus and community, but also describes an experience of positive affect, concentration, and mental and/or physical exertion. Engagement has been associated with both achievement and motivation (e.g., Balogun, Hoeberlein Miller, & Schneider, 1996; Handelsman, Briggs, & Sullivan, 2005).

Many have argued that engagement is highly contextualized and made meaningful by the environment (e.g., Stipek, 1996, 2001). Indeed, Bronfenbrenner (1977, 2005) argued that to better understand psychological and behavioral processes, such as engagement, one must understand the entire ecology consisting of the individual's immediate environment (e.g., family, peers, classroom), the external networks (e.g., community and health care systems), and the socio-cultural environment. This is the basis of his Ecological Systems Theory. By this reasoning, college student engagement is expected to be partly a function of the individual and also of how the individual perceives the classroom and university environment.

The present research will build upon existing knowledge by examining student engagement within a broader context, as encouraged by Bronfenbrenner (1977, 2005). Much prior research has been decontextualized, examining individual students at a micro level without understanding the environment or focusing on specific classes and classroom practices (e.g., Draper & Brown, 2004; Handelsman et al., 2005; see Tinto, 1997, for an exception). Other research removed the individual to focus only on the macro level, such as universities as a whole (e.g., Kuh, Kinzie, Schuh, Whitt, & Associates, 2005; National Survey of Student Engagement, 2009; Pike & Kuh, 2005).

Further, the quantitative measures that are typically relied upon do not reveal individual perspectives. A goal of the present study was to extend the research on college student engagement by exploring the broader ecological context. Thus, we investigated student engagement at the micro level and within the broader macro level of classroom and university settings in a basic interpretive study. Tinto (1997, 2006) has also encouraged this type of focus on college student development. He argues that campuses consist of overlapping hierarchies of communities of students, faculty, and staff. These communities are both academic and social in nature. This perspective is directly in line with that of Bronfenbrenner's (1977, 2005) ideas that students are nested within broader environments or communities that are both influential to and influenced by the students. Further, students were given the opportunity to define what engagement meant to them without restrictions, guidance, or boundaries. In such a way, we hoped to gain a stronger understanding of the relationship between individual student characteristics and the environment. This level of understanding can assist colleges and faculty as they attempt to implement strategies to improve student engagement and retention, and ultimately motivation and achievement (e.g., Balogun et al., 1996; Handelsman et al., 2005).

In the literature review we will present a discussion about the student, followed by that of the interaction of the student and environment, concluding with the goals and direction of the present research.

Literature Review

Not only is it necessary to understand engagement within individual students, but also how student engagement is influenced by the environment (Bronfenbrenner, 1977, 2005; Tinto, 2006). These aspects of engagement will be explored in turn.

The Student

Individuals possess several attributes that may affect their engagement. For example, prior research suggests that personality, especially openness to experience and extraversion (Komarraju & Karau, 2005), is related to engagement. On the other hand, shyness and low levels of sociability relate to higher levels of loneliness after transitioning to college, which could lead to anxiety and depression (Mounts, Valentiner, & Anderson, 2006). Also, both social and emotional competency positively contribute to freshman grades and are even stronger predictors of academic performance than high school Grade Point Average (GPA, Parker, Summerfeldt, & Hogan, 2002). Thus, the transition to college and progress through the freshman year can be a positive or negative experience depending, in part, on individual factors. Students who are most emotionally and socially prepared in addition to possessing adaptive personality traits, are more likely to engage positively in college life.

Additionally, students who have actively explored their own interests and identity are better prepared to make the transition (Berzonsky & Kuk, 2000). Specifically, Berzonsky and Kuk found that these students demonstrate greater time management skills and have structured their lives toward an identified goal. They also demonstrate stronger self-regulated learning and more mature interpersonal relationships. In contrast, lower self-regulated learning, less mature relationships and a lack of goals were found for

students who either sought others' approval, defined themselves collectively rather than as an individual or had not defined an identity and looked to others or the situation to define their role.

This view is not unique to Berzonsky and Kuk (2000). Both Conti (2000) and Pike and Kuh (2005) independently found positive adaptation among students who had clearly defined goals and identities. Specifically, the extent to which students entered college with and reflected upon personally chosen goals predicted their achievement, adjustment, and intrinsic motivation (Conti) and those who held loftier educational aspirations reported greater engagement (Pike & Kuh). Thus, some students, by virtue of personality or self-discovery, are better prepared to undertake college life.

The Student in Environment

As Côté and Levine (2000) theorized, these optimal characteristics of students must be met with a nurturing college environment. Bronfenbrenner (1977) also argued that the individual is situated in environments that have a powerful impact on individuals' willingness to engage in university life. Light (2001) made an initial attempt at examining student engagement within the broader context of a university setting. The work of Light served as an inspiration for the present research, due to his methodological and theoretical approach. He interviewed undergraduate students at Harvard University and found that Harvard students identified their own personal characteristics, characteristics of their instructors, as well as characteristics of university and extracurricular environments that affect their engagement. Among the positive correlates of engagement they cited were: (a) personal interactions with faculty, (b) learning opportunities outside classes, (c) highly structured courses with many short assignments, (d) small class sizes, (e) a diverse mix of racial and ethnic backgrounds on campus, and (f) good time management and study skills. (It is not known if engagement at a private Ivy League university will translate to a public institution.)

This notion of the person nested in environment has been specifically applied to freshman students' success in college (Côté & Levine, 2000). Côté and Levine combined Astin's (1991) model of educational development with Lerner's (1995) theory of developmental contextualism to arrive at a model of student development leading to success in college. In their model, the optimal situation is that students enter college ready to engage and benefit from the experience. The students have motivation, social and emotional maturity, along with academic ability. Once in college, the learning environment provides a nurturing fit for the students' needs, motivations, and abilities. The outcomes for such students in these nurturing environments, then, would be increased achievement, self-motivation, and self-regulation.

Present Research

As previously indicated, our qualitative study was based on the approach used by Light (2001) and Light, Singer, and Willett (1990). Light and colleagues led a team of faculty and graduate students in interviewing undergraduates over several years. The focus of their interviews was "What can an individual student do, and what can any college do, to improve the chances that a student will say, 'I really got what I came here

for'?" (Light, 2001, p. 1). We based our questions on those used by Light (2001) as well as the interview structure. While Light contends that many universities conduct such studies, most of these projects have been intended primarily for internal assessment rather than disseminated to increase our knowledge of college student engagement. While it is common and necessary for institutions to conduct ongoing assessment and evaluation, it is also important for information to be shared with the broader academic community.

Participants in the studies by Light and colleagues (1990, 2001) were students in an Ivy League institution with primarily traditional campus experiences. This research extends Light's findings to students at a public university and offers another opportunity to understand the elements of engagement from the students' points of view. Further, these results add to the existing literature by incorporating the ecological perspective (Bronfenbrenner, 1977), which will allow us to explain engagement not only as a function of the individual, but also of the interaction of the individual with the environment. We also discuss how the results may inform ways to support students' engagement and to encourage choices that are most productive for learning.

Role of the Researchers

In keeping with the transparency required of qualitative researchers, information is included to identify authors' perspectives that may influence qualitative data analysis and to support readers' understanding of potential bias. The first two authors are faculty members in a school of education while the third author is a doctoral student in educational psychology. We were all interested in better understanding student engagement to improve our own practice as well as to inform university administration and faculty both at our own institution and others.

First Author

My academic specialties are child development, motivation, and quantitative methods. I typically teach graduate statistics courses and have never taught first year courses. My only experience with freshman student engagement was as a freshman almost 20 years ago. I sought to be highly engaged on campus with involvement in many activities that fit my interests at a campus in which many students complained there was "nothing to do." I had to openly acknowledge my own experience to remain open to what the students in this study reported.

Second Author

My academic specialties are cognition, motivation, and qualitative research. I have not been directly involved in student services or in teaching first year students. However, I have two sons who had very different experiences in their first years of college. One attended a small liberal arts college that gave close attention to individual students, guiding their academic skills and supporting development of cohort groups. The second son attended a state university with large first year classes and felt he was lost in the mob. I had to bracket my understanding of their experiences so that I could honestly analyze the voices of the students in this study.

Third Author

My focus as a researcher is on what makes a student successful in his or her college career, with special interest in mental health and relational experiences. Beyond my research interests, my previous undergraduate experiences shape my views. My positive college experience was filled with involvement. I was a very motivated and engaged learner. I enjoyed the college environment for the rigorous academic content, the formal student development activities, and informal social activities. My bias is that I believe the engagement on campus should be inclusive of academic and co-curricular sectors of campus life. In reviewing the data, I have made every effort to listen to the unique stories of each individual. I respect and validate the rich, meaningful realities of those who shared their stories.

Method

We selected the basic interpretive approach as described by Merriam (2002) because we wanted to focus on the perceptions of individuals who had all shared the experience of one year of college education. While this was not specifically the approach used by Light (2001), McLeod (2001), who labels this approach generic, argues that it is the most reasonable for beginning qualitative researchers. (Although we are using a different qualitative methodology from Light (2001), his interview procedure and questions formed the basis for the present research.) By using the Basic Interpretive/Generic approach, we could identify the components of the experiences participants found most salient to define the nature of that experience. Generic or Basic Interpretive methodologies "draw from phenomenology and symbolic interaction… [to understand] how people interpret their experiences, (2) how they construct their worlds, and (3) what meaning they attribute to their experiences" (Merriam, p. 38). This basic approach allowed a focus on the nature or essence of the experience of engagement/less engagement, and an understanding of students' interpretations of university life. We were able to gain insights on how the participants framed their experiences along an engagement/non engagement continuum, how they accounted for the decisions they made, and which experiences encouraged them to be engaged in contrast to those that discouraged engagement. Furthermore, we were able to focus on the essential experiences that framed university life, including in- and out-of-class activities, plus the meanings and interpretations each student assigned to these experiences.

Research Team Preparation

Nine graduate students (five male, four female), from diverse programs across the university were hired to interview three students each, consistent with our funding agreement with the University. These students also participated in the various stages of data analysis. The members of the research team were all familiar with Light's (2001) research and had read the book that formed the basis of this study. However, only one of them had more than a passing acquaintance with qualitative research.

Workshops

Because of the paradigm shift necessary for understanding research philosophy and frameworks inherent in effective use of qualitative procedures (Creswell, 2007), these graduate students underwent three lengthy training sessions. First, they participated in a workshop to discuss Light's (2001) philosophy and how it informed the focus of the research as framed by this study. The focus then turned to qualitative epistemology and methodology, with particular emphasis on a generic approach as described above.

In qualitative study, researchers' related previous experiences and the meanings these individuals attached to those experiences are a relevant component of the study. In the process of gathering data, interviewers enter into a shared reality with their participants; therefore, careful attention must be given to researcher judgment, intuition, and self-analysis as part of the scientific inquiry (Moustakas, 1994). In keeping with these understandings of the qualitative processes, we asked graduate student researchers to write a reflective paragraph detailing their own perceptions of the role of engagement for successful university experiences. This self-analysis was used to identify potential bias in data analysis. The graduate students then discussed their experiences in small groups and identified the biases they were likely to bring to the interviews. Each articulated his/her own assumptions in order to identify them before any interviews took place. We addressed this need for self-revelation (Merriam, 2002) early in the process so that the interviewer, the data gathering instrument (Sciarra, 1999), would be as open as possible during the interviews and able to bracket his/her preconceptions as he/she interacted with participants and analyzed the data.

The second workshop addressed the interview protocol developed by the authors. After discussion of effective interview skills, interviewers practiced using the protocol with other graduate students until they were comfortable with both the content and the process. The intent in this practice session was to refine the interview protocol and to also emphasize the necessity of monitoring and controlling researcher preconceptions, consistent with recommendations for the phenomenological approach. Additionally, online chat sessions allowed the interviewers to discuss questions that later emerged about the protocol and interviewing procedures. The third workshop focused on data analysis procedures and will be discussed later in the paper (see Appendix A for a summary of the process as presented to graduate student interviewers).

Participants and Interview Procedures

We first received Institutional Review Board (IRB) approval for the project. All participants signed informed consent forms which were approved by the university. These forms outlined the research procedures, confidentiality and privacy issues, risks and benefits. Participants were given the opportunity to ask questions and were told they could withdraw from the study at any time or refuse to answer any questions, without negative consequences. First year students from a medium-sized, public, Midwestern university, were invited to participate in the study, without compensation for their participation. We deliberately selected participants to represent as wide a range of majors as possible and to balance males and females proportionate to the volunteer pool. All participants were of Caucasian descent. No ethnic minorities were among the volunteer

group, which reflects the percentage of minority students on our campus. Therefore, ethnicity was not considered in this study and findings generally represent a small upper Midwestern university. From those who consented, 27 students were selected (19 female, 8 male, mean age = 18.59, SD = 1.01) to provide a broad range of majors from across the university. First year students were selected because we hoped to track students throughout their college careers. The experience of being first year students, regardless of major discipline, defines the academic and personal transition experience of interest.

Interviews were semi-structured, using essentially the same series of questions with each participant while allowing participants to offer insights that may not be specifically addressed in the original questions (see Appendix A). We drew our methodology and questioning from that of Light's (Light, 2001; Light et al., 1990) studies. We selected general topics related to both the individual and the campus environment that were not specific to practices at Harvard University (where Light's study was originally conducted.) The first question in the interview protocol (taken from Light et al., 1990) was intended to determine an overall level of engagement and encourage students to think about their engagement and level of engagement. Participants rated their engagement on a ten-point scale with one being not at all engaged and ten being completely engaged. This question led directly to the initial question of the interview which asked students to explain how they defined engagement. Remaining questions addressed extracurricular activities, time management, course selection, course involvement, homework assignments, study habits, faculty, university resources, and the campus environment. We included both academically focused and extra-curricular questions for elaboration to better understand how each participant connected these two inter-related aspects of university engagement. Each interview was audio-tape recorded and transcribed by a hired transcriptionist. Transcribed interviews allowed us to be confident of both the accuracy of the interview data and to facilitate independent analysis of the transcripts and discussions among the co-researchers who had all encountered the same data. Individual transcripts were then sent by the interviewer to respective participants, who verified these transcripts for accuracy. This was completed before any data analysis took place. The research team worked only with verified or participant modified transcripts.

Analysis Procedure

Theoretical lens

We have taken a theoretical approach consistent with Ecological Theory (Bronfenbrenner, 1977, 2005) and used the interviewing method of Light (Light et al., 1990, 2001), as well as adapted Light's questions for this population. As discussed in the literature review, we argue that student engagement is not only a function of the individual student, but also of the environment in which the student is situated. Student characteristics, like personality, identity, and goals, can influence their engagement. However, they cannot be understood outside the context, college life in this study. It is necessary to explore the match or interaction between student and environment to more fully understand the students' sense of engagement and the factors that may be related to it. While the authors maintain this stance, more objectivity was interjected in the data

analysis through the use of nine graduate students who interviewed and analyzed responses. These graduate students were selected from different programs across the university. All nine came to a unanimous decision regarding the themes addressed in the freshman students' responses. While it could be argued that the graduate students each had a different theoretical lens through which they interpreted the data, that all nine agreed indicates that the themes transcend individual beliefs and biases. The analytical process is described in more detail below.

Data analysis process followed the steps described in McLeod's (2001) Generic Approach (the coordination of these steps is explained thoroughly in the Workshop sections below). McLeod's steps included reflection for personal self-analysis that allowed the researchers to understand how their personal understandings could influence the study. Each interviewer, also responsible for the first rounds of data analysis, had previously created a document that detailed their first year experiences (see below in Workshops) so they could recognize their own biases.

The second step, immersion in the data and phenomenon and arriving at a view of the phenomenon that was supported by the data meant that each interviewer first read and re-read their own interview transcripts and identified ideas that these had in common and how they differed, then repeated the process for transcripts of interviews conducted by one other graduate student interviewer.

The third step, condensing the research text to identify more specific insights, occurred initially when the two individuals who had analyzed their own and one other set of interviews met to discuss and compare their understanding of what they found in the four transcripts they had shared and worked to come to a common understanding of their interpretations, found participant language that supported their conclusions. Then the entire group of reviewers met together to follow the same process to accommodate interpretations of all transcripts of all participants. Extensive discussion allowed the data to be comprehensively framed to identify the characteristics that described the group overall and also to identify variations and discrepant data and perspectives so these could also be accounted for. During the pair and group meetings, interviewers were involved in discussions about the overall sense of the emerging information, the specifics that supported their interpretations, and consideration of alternative meanings to their initial conclusions. As a group, graduate student researchers interpreted layers of meaning to arrive at underlying concepts and essential ideas.

The final step of the Generic approach, rechecking the data to be certain that the insights that emerged were consistent with all participants' contributions, was conducted by the third author, who worked with the documents, tables, and discussion information from all graduate students who interviewed and analyzed the data to coordinate the information into a manageable form. She also rechecked all the data and transcripts to identify quotes that best illustrated the themes and insights that emerged. The second author combined these into the synthesis represented in this report.

Procedures

Our third workshop specifically addressed data analysis procedures. Graduate students learned to analyze the transcripts based on the method described by McLeod (2001). As he recommends, they concentrated on a careful analysis of the interview

transcripts to "develop a more fine-grained understanding" (p. 135), kept records of their emerging understandings in a research journal, and checked that the insights they gathered were supported by the data itself. The interviews were analyzed by all members of the interview team through a series of stages to assure control of bias and for verification support (Creswell, 2007). In the first stage, the graduate student interviewers individually reviewed the transcripts of the three interviews they personally conducted. Their task as they reviewed were to follow the principles they learned in the third workshop, giving equal consideration to all participant comments, referred to in the Generic approach as a "condensing the research text" (McLeod, p. 135). Each interviewer then conducted the same analysis on a clean copy of one other interviewer's transcripts, meaning that each transcript was independently analyzed by two researchers before any discussion took place. Researcher pairs then met to discuss their interpretations, the patterns they identified, and emerging insights based on the specific patterns they had identified in the six transcripts that were handled by this team. Each pair identified and agreed upon terminology and concepts such as varying student definitions of engagement and sense of self as introverted or outgoing, to describe common themes, but kept note of any other ideas that emerged.

Next, the entire group of interviewers met twice to discuss the common themes that seemed to describe the continuum of engagement, as perceived by the participants, to further explain the identified patterns and to agree upon major themes that described the engaged and less engaged (the step that McLeod (2001) refers to as creating a "comprehensive and exhaustive analysis of the research text" on page 135). This was accomplished by describing and identifying the two ends of the continuum as described by the participants' pictures of themselves and then organizing related beliefs and behaviors along that continuum, carefully basing the descriptions on actual words of participants. At the first meeting, a data summary tool was provided by the authors to make sure that participants could verify their themes in the words of the participants (see Appendix B). Between the two meetings, the interviewers then independently reviewed interview transcripts as well as notes from the first meeting in preparation for continued synthesis and refinement. In this way, we systematically developed common themes. All researchers agreed that these themes represented the elements that described the engagement of students as supported by the interviews. The procedures served to verify that the insights and essential meanings extracted were arrived at through credible procedures of generic data reduction (McLeod).

At this point, the third author, also one of the graduate student researchers, gathered all notes, documentation, and matrices from the other participants and synthesized these into an MS Excel document that identified themes and supported each theme with quotations from the original transcripts. The second author used this synthesis to create the results section, which was carefully reviewed by the other two authors for accuracy. All stages and action components were systematically reviewed by each of the three authors to support verification of interpretation and control for bias (Creswell, 2007).

Verification strategies

        Multiple steps were undertaken to support verification of interpretation and control for bias. Creswell (2007) listed eight possible verification strategies for qualitative research projects and recommends that all researchers use at least three of them. As described above, we used five of his recommendations for verification of our data. First, Creswell recommended triangulation of the findings using a variety of sources in the literature and existing theories to frame the research. Existing literature from a variety of sources and a variety of perspectives (outlined in the introduction) framed analysis of the data and served as a basis for making sense of the insights provided by the participants. Second, we used multiple researchers to illuminate the data and interpret participants' words. As addressed under Theoretical Lens, we had nine interviewers who also interpreted the participants' responses. All nine agreed on the ultimate interpretation. Third, researcher bias was discussed at the beginning of the data gathering process and revisited as data was discussed, both to identify themes and to select quotes that represented these interpretations. Prior to conducting interviews, all researchers generated and discussed paragraphs of their own experiences as college freshmen and the biases they might bring to the research. These paragraphs were reviewed when they began the interpretation process. Member checking, another of Creswell's recommendations, was systematically conducted by all graduate student researchers as they verified the transcribed interviews with each participant. Finally, "rich, thick descriptions" were created to allow "readers to make decisions regarding transferability" (p. 209). These were systematically created through the individual, partnership, and whole group examination. When themes were articulated so that they reflected the understandings of the complete group of interviewers and researchers, we sought all examples that represented the theme, and also looked for non-examples that might illustrate contrary perspectives. None of the latter was discovered, as the themes were broadly stated and inclusive. The third researcher then compiled a collection of these quotes, and the second researcher selected the most representative and clearly articulated statements, which were incorporated into the findings section of the paper.

Results

        Students easily fell into two categories: more engaged and less engaged. Upon providing a value (one through ten) for their level of engagement, they were immediately asked to expand upon that answer and define what they meant by engagement. Students mentioned that they were either highly engaged or not. Thus, the results will be discussed in light of this categorization.
        There was a vivid difference between the engaged and the less engaged students in personal, social, and academic realms. The first obvious difference was that engaged students defined academic as part of overall engagement. For example, Jacob rated his involvement on the one to ten engagement rating scale. "I really feeling like it's more an eleven.… I'm a music major so I have a lot to do for that," and followed with a list of music activities that are important to him. Scott rated his involvement, "USD as a whole, I'd say about a five, but because I'm a theater major, I spend most of my time there, so I'd say about a nine for theater, so it varies [depending on] how you look at it." Those

who described themselves as less engaged were inclined to only consider engagement as "clubs and stuff," and did not mention involvement in academic-related activities.

Most prominently, there was a relationship between students' personality traits (similar to extraversion and openness to experience as defined by McCrae and Costa (1996, 1999) and their engagement). These results support the prior results of Komarraju and Karau (2005) and add to the results of Light (2001), who did not address personality in his studies of student engagement. The highly engaged students tended to be those who took it upon themselves to join activities, make friends, and visit faculty and administration. They were not only involved in many activities, but they also tied their activities with academics. These were the students with strong senses of identity and life goals. Through their activities and friendships, they developed a support system and a network of both institutional and informal resources. Their personalities were most conducive to seeking out activities and resources, making friends, and connecting all facets of their lives. In brief, the highly engaged (a) had a strong sense of personal identity, (b) identified personal interests and pursued them, (c) maintained balanced involvement in extracurricular activities, (d) tied extracurricular activities to academics, (e) took initiative to get involved and meet other students, and (f) took initiative to meet faculty and use resources. These characteristics will be described under themes of student personality characteristics, university-related characteristics, and instructional environment.

Characteristics of the Students

Engaged and less engaged students described themselves very differently (see Table 1 for an overview of distinguishing characteristics for engaged and less engaged students). Those who were engaged consistently saw themselves as extroverted and displayed a generally strong sense of themselves and the purposes of their education. They demonstrated a pattern of continuous engagement as they were also highly involved in academic and social dimensions of high school life. The less engaged contrasted with these characteristics in every way, as described in Table 1 and the words of the participants.

Those who had a strong sense of self, their goals, and the purposes of college as a complementary combination of academics and social connections seemed to be most successful in finding a place in the university. They were aware that these connections at the university could create a more comfortable and successful college experience, contribute to their future goals, and were also aware of the process of making and keeping connections.

Kelsey put it simply as, "the more involved you are, the more comfortable you're gonna be with stuff." Sam, who chose to join a fraternity to ease connections said, "around here... the more people you know, the more YOU know." Grace emphasized both comfort and support: "you always have somebody that you can go talk to about your classes or if … you just want to talk to somebody…" It seemed to be especially helpful if the connections involved older students: "knowing people that already have been there, it's kind of been helpful," Kate said. Older students, Monica said, "are the ones that have really gotten me involved" through a particular activity. At least one student emphasized the long term importance of campus connections. Sam said, "I joined all the clubs and

stuff… because they say med schools... look at that, and… I'm really trying to get into med school." Those who described themselves as outgoing and involved in high school activities, particularly those who had previous connections with the university, found it easiest to become involved in campus life. Jacob, for example, listed family connections to fraternities, previous involvement in university music activities, and acquaintance with key professors in his major as important to easing him into campus activities.

Table 1

Distinguishing Personal Characteristics for Engaged and Less Engaged Students (Micro Level)

	Engaged	**Less Engaged**
Personality	Extroverted; driven Prefer academic challenge Resilient in face of obstacles	Introverted; lack focus Don't pursue challenge
Sense of Self	Clear sense of self Campus involvement based on interests	Ambiguous, undifferentiated interests
Current activities	Many extra-curricular activities that are related to academic interests	Few activities and are not directly related to academic interests
Prior Engagement	Highly involved in high school	Minimally involved in HS
Access Point to Engagement	Academic plus social	Limited Social
Support System	Extensive and well-used	Limited perceived support
	Connections created snowball effect	Fewer connections
Advising Experiences	Formal and Informal	Follow mechanical, university-created routine
	Self-regulated to find their own advisors beyond formal system	Other regulation
Study Skills	Initially studied alone then moved to structured groups	Studied alone
	Developed strategic skills and time management	Un-strategic skills and did not know how to improve

However, being outgoing in the comfort of familiar high school life did not guarantee that a student would feel equally outgoing in the university setting. Kate described this disconcerting experience: "I was way outgoing and then I got here, it was like, I kind of am afraid of people…. mostly, I'm a lot more shy… than I thought."

Outgoing students were adept at negotiating campus connections, Megan, who described herself as engaged said, "On your floor you meet your neighbors and then you all go out to lunch together… and you meet more people, and you know their friends and it's kind of like a big network." However, Jacob also talked about the need for tenacity and patience in finding a group, particularly structured around activities: "At first, there's so many people involved... you can't really hang out with everybody... you have no idea who they are. [But eventually] you really get to know the people you're in activities with."

Those who described themselves as shy had more difficulties connecting with social groups, even though they were well aware that if they met more people, they would feel more comfortable. Jeff, whose self-assessment of involvement was low, summarized the dilemma these students face: "I'm a really shy person, so, I guess, just taking the initiative of getting out and doing something is hard for me."

Even when these students did take the initiative to try to join campus organizations, they did not always feel welcome. Joy described her early attempts to connect with one of these groups, "...they've already established a group of friends where they know each other really well and everything; if there are people that come in that weren't there in the beginning… nobody talks to [you] and nobody says yeah, you should come back again. I think it's hard for someone to come back if they're basically ignored. [You feel like] social outsiders." Students like Lucia, who described herself as, "just not the most social person," had difficulty initiating connections with others and, as a result, were involved in few or no social organizations. With the exception of her roommate, her friendships were unrelated to classes or dorm life, and were perhaps not connected to the university directly. Most of the students who comprised this group had not been involved in high school activities either.

Engaged students sometimes faced a different problem; they had some difficulty in striking a balance between social and academic engagement. This group cautioned future students to make sure that they created a balance between academics and social engagement. Kelsey's story was typical of this group. "At the beginning of the year I wanted to have all social, everything. I wanted to go out every night and just meet as many people as I could because that's how my personality is. And I kind of neglected the schoolwork and everything else…." Jack advised, "I would emphasize academics, but don't leave your social life in the dust.… make friends…. you can never know too many people."

In sum, outgoing students had a clear advantage for engagement in university activities. Less outgoing students faced personal obstacles in making connections and making use of resources. The engaged students also had a better sense of the purposes in pursuing their university education. In contrast, the less engaged students either relied on others to define their purposes for them or functioned without any clear direction.

Macro-Level Contexts

The relationship of personality and the environment was also important with regard to the classroom and the greater university environment. The engaged students contended that resources were widely available while the less engaged students were

much less content with campus resources. Contrasts are summarized in Table 1 and illuminated by student comments that follow.

Access point

It was clear that students who successfully combined active campus engagement with their academic work were happiest with their levels of engagement. "I love messing around with microscopes and looking at different things like that…. Speaking the language and being immersed in the culture.… My extracurricular backing up my academics... involves me in it," explained Sara.

Bob, a pre-med student, first mentioned his engagement in professional organizations, and then listed some other activities he had carefully selected. "I don't think it's really necessary for every single person to be involved in ten different things," he concluded. Kate found the academic pre-med curriculum so demanding that she chose not to participate in many activities. "I'm involved in as much as I can…. The workload doesn't really allow me to be very involved in anything else because I was concentrating on classes so much." Kate has decided to transfer to a school that she perceives will be less demanding and, "then I'll probably become more involved."

Less engaged students described only limited social access, primarily based in dorm life or roommates. John reported no involvement outside his classroom experience. He experienced a disappointing first semester, including academics and socialization. He rated his engagement: as "probably four. I haven't done anything extracurricular, so that I haven't even touched. And, um, campus life, I guess, I live in Julian Hall, so I've got, like a couple friends, not really too much of a big deal. And as for school, my first semester went really bad, actually, and I ended up dropping half my classes so, um, that was kind of disappointing for me." However, almost all of these students expressed regret about their lack of connections to others in social or academic settings. Lucia, in giving advice to next year's freshman class stated, "go out and meet new people. Don't just sit in the dorm room." They occasionally referred to knowing a couple of people in their classes, but more often seemed to be solitary in those settings as well. Lori described herself as less engaged with a rating of one because, "I'm not involved in any clubs or anything." And, when asked if she studies with others, Lori replied, "no, I study alone."

Social and academic relationships

There appeared to be a pattern in which students who were less engaged academically were also less engaged socially. Those who were highly engaged academically were also highly engaged socially. This relates to their practice of using academics as an access point for engagement. Further, the students who tended to be more highly engaged, also tended to have a better sense of their own identity and interests. These were linked in all their activities. For example, John was extremely involved in his academic discipline of music, intramural sports, and socialization. He stated:

> Right now I am really feeling like it's [level of engagement] more of an
> eleven. I'm just so incredibly busy nowadays. For all the activities I'm in.

I'm a music major so I have a lot to do for that. I'm in music ensemble groups and just classes and the practice time and stuff like that. You have to really commit a lot of time to that. And I'm in the concert choir. The director asked me to come and help out with men and women's choir so I'm doing that, too. And I'm also in a barbershop quartet over there. Yeah, they've been around for two or three years and one of their members transferred to Lincoln. So when I came actually for my orientation, they heard about me from the director, Dr. H., who was in charge, he was talking to them about me, I guess. And they came over and asked me if I'd like to be in a barbershop quartet during orientation. And I was like, "uhhhh, okay." So it turned out to be kinda fun so I'm still doing it. I got all that. And then I also play lacrosse. I'm on the lacrosse club team. And that takes up…we practice every night of the week. And now that it's in April, we have games - at least one game every weekend and some during the week. I'm doing that. I'm in a fraternity.

Similarly, Bob was actively involved in campus organizations related to his discipline as well as social events. He was:

Involved in various things on campus. I've been trying to get involved. I'm in numerous organizations. I'm in the pre-med society. I'm the treasurer and I was elected president so I'll be president next year. I'm in Phi Delta Theta, fraternity. I've participated in the dance marathon, um, program counsel, the after-hours program in that and I'm a student technology [sic]. I don't think it's really necessary for every single person to be involved in ten different things...get involved in at least a few things, something that interests you, so you don't have to just study and sit in your dorm room all the time.

Yet, he still is actively engaged in his academics. Bob likes his professors to know him on a first name basis. He desires to have involvement with them outside the classroom. He stated, "I actually tried to make an effort to at least know most of my instructors and I'm on a first name basis with three out of four instructors now, so I try to make an effort to go to their office hours a couple of times over a semester....They're holding a PhD in whatever and you're just an undergraduate freshman but aside from that it really was just a professional meeting, it wasn't at all awkward or intimidating."

In contrast, Lori commented that she was not engaged on campus, "Because I'm not in any clubs or anything," defining engagement as involvement in organized activities. This low level of self-defined engagement was reflected in academic settings, as evidenced by her reliance on others to schedule her classes. "I'm just taking the general ones [classes], the required ones. And then the ones my advisor told me I should probably take." She also stated that she tends to study alone.

John explained that "there's only one extracurricular activity I'm in, it's the vets club. So that's the only one. I live off campus, too, so, I'm a little older so I don't go to the U Bounce or whatever or whatnot, so it's [level of engagement] pretty low, three or four." Later, he described his academic engagement. John does not have a study strategy

that works well for him. He is aware of his lack of study habits. John acknowledged his lack of academic engagement by stating,

> I should make flash cards but I don't. And I basically, I know they say you should study in the day time, but for some reason I find it tougher to get motivated in the day time than towards the evening, I'm like, 'wow, I haven't done much all day' so I turn the TV off, turn the radio on or something. I can't study with the TV on but I can with the radio on. And I study at night, I read, I do math problems, just do them, random ones. If I have an assignment, I do the assignment, until I feel comfortable with that information. Biology, I just read the notes and do the study guides for the test, I'll open the book, since I paid $125 for it I figure I gotta open the book, look at the diagrams, correlate some of the text with my notes and two different sources.

Luca has minimal engagement on campus which in turn results in a limited number of contacts on campus. She stated, "I'm not involved in any extracurricular activities." Luca has limited study strategies. She did not come to college with a good repertoire of skills from high school. Luca does not feel prepared for studying or the responsibility of college life. She seems uncertain of how to do better. She stated, "my first semester didn't go so well…I wasn't ready for it." In regard to her study strategies, she replied "I usually end up doing it [studying for a test] the night before or the day of….I end up procrastinating." And, in response to different study skills per class, she stated, "I think I study for them all the same."

Support system and advising

One difference seemed to be that the engaged students were those who sought out resources. For example, the engaged students pursued informal advising in addition to the formal systems of advising on campus and then took responsibility for development of their own class schedules and courses of study, while the less engaged only reported utilizing formal systems of advising and allowed university advisors to develop their schedules.

Those who "knew how the system worked," in Megan's words, were able to contact a variety of individuals to support their learning and course selections. Engaged students reported making use of formal advising procedures initially, but eventually moved to taking more control of their own course selections, preferring to make the choices that would interest them, but also with careful attention to requirements. Although they saw freshman advising as "ok for the basics," in Bob's summary, they found more positive guidance within their major schools.

Engaged students found faculty accessible and helpful. "Everybody has office hours and they…encourage you to come by if you need help," said Grace. Megan made sure she was, "acquainted with the professors and the buildings and knew my way around." These students also made use of more informal support systems, such as roommates, students who had taken particular classes before, student residence assistants, and hall advisors: "It's nice to have someone who already went through that process and

is in that department to tell you what you need to expect," Megan said. These students learned to make a point of asking questions. "If you don't understand something, find someone who will explain it to you…. Ask, because it will come back to haunt you and you'll be taking summer school like me," Clara advised.

Most less involved students chose to "just take the general and required courses," rather than courses that seemed interesting, but may not be required. Lucia was an exception; since she had difficulty choosing a major, she decided to take only courses that interested her, hoping to identify a major field. These students typically commented negatively on the freshman advising process.

Unfortunately, some students seemed unaware of how to make use of their resources, what Sara called "the chain of command" and consequently had no idea how to resolve their issues and concerns. Even when less engaged students were aware of support systems, they were hesitant to make use of them or unclear about procedures for involvement. For example, Jeff described working with a Supplemental Instruction (SI) group (study groups assisted by trained peers) for a couple of his classes, which he found very helpful. But he suddenly lost the group, "they must have changed times or something and - I don't know what happened." He was never able to reconnect.

Jerry was at a complete loss, "I'm still as confused now as I was when I first came to school, if not more so." He thought he was enrolled in a program which he later found only existed online. "Sometimes I almost wish someone could make that decision [about what choices to make] for me…. My advisor… has not helped me at all."

Once enrolled in classes, engaged and unengaged students had different ways of assuring success. Those who were engaged chose to make sure that their instructors knew who they were. Bob said, "[I] make an effort to at least get to know most of my instructors,.. try to make an effort to go to their office hours." He described these meetings as "professional;.. it wasn't awkward or intimidating." Sara emphasized the willingness of teachers to help when asked. "You can go to the teacher and say 'I don't get this'... She makes you feel completely welcome, you could come in and sit and work on her assignment in her office... to just be able to ask her questions." More reserved students did not mention taking advantage of these opportunities.

Other students were very deliberate in seeking out resources and support systems. Clara recognized that discussions with her roommate gave her the sympathy she needed, but did not help her resolve issues. She eventually forced herself to visit her advisor, "who I was very afraid of until I finally went…to speak to her. She's a wonderful lady." She also very deliberately joined a sorority "because I was having trouble adjusting and fitting in; I didn't think that there was a place for me at the university." The sorority did address her social needs, but "I wish it didn't cost so much."

Studying

Study strategies

Engaged students were thoughtful and strategic when they approached studying. Grace was well aware of the impact of the study environment, "I generally go either to the library or the honors lounge, take along headphones and all my books, study, take notes, do practice problems, practice quizzes online, everything. I don't do anything but

study." Megan talked about her study decisions in terms of current progress, "I prioritize by the grades… whatever I have to work harder at, I do more of." Jerry emphasized the importance of staying current with daily work, "make sure I understand what's going on … with my assignments."

Some engaged and less engaged students explained, like Jerry, that "I never studied in high school, so I didn't study very much my first semester and I learned the hard way." Clara said that she, too, "just recently started studying," and developed some individual strategies that work well for her, including contact with a professor if she was confused.

Jeff represented the group that had not found successful study strategies on his own. "I should make flash cards but I don't.… I find it tougher to get motivated in the day time, then towards the evening, I'm like 'wow, I haven't done much all day' so I turn the TV off, turn the radio on or something…. I do the assignment until I feel comfortable with that information…[or] just read the notes and do the study guides…. I'll open the book since I paid $125 for it I figure I gotta open the book, look at the diagrams…." Isabelle, too, said that she was "not very good at studying." She did make use of mnemonics, but was unable to derive meaning from her study time. "When I do study I can't really remember anything, so I usually just don't study. Or if I do, I read through everything, like the night before or something. Look at it." Others, like Lucia, who also emphasized lack of study in high school, said "I end up procrastinating… I think I study for [all my courses] the same."

Structured groups

Similar to the findings of Light (2001), the more successful and engaged students studied in structured groups, whether formal or informal. They learned much better if they structured the setting and developed strategic skills and time management. The less engaged students tended to study alone and seemed stuck in less strategic patterns. The engaged students' study groups were formed because of class or dorm friendships, providing easy access to group study. Less engaged students had fewer contacts in their classes or dorms to form study groups. The SI groups, although maybe more formally structured, were not accessed by the less outgoing students, perhaps due to personality character traits (SI groups were structured study groups that students could opt to attend. SI leaders are trained to lead discussion of course topics and help students identify important topics from their texts and lectures). Megan said the SI groups were helpful "because a lot of kids have the same questions…you can go over it and ask."

Since engaged students took responsibility for their own learning, most were inclined to study alone initially and described specific strategies they used to prepare themselves. Those who had friends in classes also studied together after each had prepared individually. According to Joy, "if we have questions, if we don't understand, then we ask the other person... explain it in a different way that might make it easier.... it helps you think about it in different ways." "When you're in a group," Bob said, "it's more constant interaction...five or six people working on a problem and providing input." Jerry reported that he had studied with others first semester because "there were some people I knew" in the class, but since then he has not been able to make that connection with a group.

Some students did not believe that they had the self-discipline to study with an informally structured group. Mike's comment was typical of those learners: "Nope, I can't because I'll kick back and just start talking." These students were unable to focus on the content to study because they found that they would "get distracted talking on other things," as Sara described. Others simply preferred to work alone: "It really doesn't help me to have other people say it because I usually just fall back to listening to them and if I'm not actively involved trying to figure it out on my own, a group kind of deters me from actually figuring it out.... I just let them do it and tell me the answer," Rae said.

Many of the engaged students make use of independent study and utilize effective study skills, create informal groups, and join formally-structured groups because they have the personality traits and collaborative skills that allow them to make use of their resources. In contrast, the less engaged students did not report using the study skills consistent with independent learning. Furthermore, they are inhibited from making contacts in classes for informal groups and they are not outgoing enough to seek out and sustain involvement with structured groups.

Instructional Environment

All students agreed that there were several aspects of the classroom and instructional environment that could contribute to engagement (see Table 2 for an overview). These included faculty who projected a passion and enthusiasm for their discipline and used humor in instruction. Further, all the students valued a personal, caring relationship with faculty, but the engaged students were more likely to seek out such relationships. All students preferred classes that were interactive, "hands on," and included diverse instruction, with assignments that were meaningful, focused on higher level processes and relevant to the real world. Similar to Light (2001), we also found that students preferred to have many short assignments or quizzes scattered throughout the semester to keep them on track and to help structure their studying.

Table 2

Classroom and Instructional Environment (Macro Level)

	Both Engaged and Less Engaged
Faculty-Student Relationship	Recognized as an individual
	Personal, caring relationship
	"Open door" policy / accessibility
Faculty Persona	Passion for the academic discipline
	Enthusiasm, Humor

Class Format	Interactive Dialogue
	"Hands On" Variety of Techniques
Assignment / Assessment	Incremental assignments
	Meaningful / not "busy work"
	Focused on higher level processes / challenge
	Relevant to real world

Faculty-student relationships/faculty persona

Jack's comment was typical: "The instructor makes almost all the difference [especially due to his/her] passion for the subject, passion for education." Enthusiastic teaching was central to every comment about teaching style. Students also emphasized the value of expertise, that it was critical that professors "know their stuff," as Monica said. Passionate teachers made it easier for students to get involved in the subject, as well. "My teacher was so excited about calculus and all the applications it has that I never would have seen," Clara said.

Students described the excitement of learning new things from these professors. "There's always new information that I hadn't known before...." Megan pointed out. Jack likes it "when teachers keep things open, when they actually give you an opportunity to say how you're feeling or your opinion or whatever's appropriate for the particular discussion."

Teachers who could establish relevance in content were also highly valued. Sara's history teacher was able to do that. "They can apply it to something that's going on now and make it make sense and make it relevant." If a teacher can do that, said Jacob, in reference to a particular teacher, "we really love listening to him." This was especially valued when they had opportunities to be involved in serious discussions. "We get into some heated arguments and stuff like that, which is really good because you get to put your view out there and you learn more, your ideas bounce off your peers, bounce off the teachers. You get more information," Kelsey stated.

Jacob, a music major, took for granted that he would be fascinated by his music classes, so his enthusiasm for them and for his teachers was intense. However, he also found that he'd learned to find meaning in other classes. "Away from music, like biology classes… just the stuff that goes on inside of you and you had no idea it was happening!"

Students also commented on the value of a teacher who made each person feel part of the class. "The good ones that I've had," Kate stated, "really make an effort to make everyone feel involved.... They make you feel that you are a part of the entire class." "If I am more comfortable with a teacher, I will learn better…. I hate being talked down to… if someone works side by side with me that's much better… I like that," Scott explained. They also appreciated being known as an individual by their instructors.

Megan said, "they know you by name. You're not just a number if you form a personal relationship... It's helpful to be engaged with the professor."

On the other hand, most of these students also described classes in which the teacher was less involved, and therefore seen as less effective. "You've got some of the people, you can tell they're not here to teach. They're just here to do their research and they really don't care... might be brilliant people, but if they don't know how to teach, it's very difficult to connect," Sam pointed out. Kate said that "the bad ones just completely ignore the class… they're just up there preaching to the walls… because they don't really care about their students."

Teachers who do not meet students' needs and engage them in class have a dramatic effect on value for the subject matter and for engagement in academics overall. "One of my teachers this semester doesn't even know my name still… I don't feel very welcome by [specific department] faculty. It's really frustrating for me to decide what I'm gonna do if I don't feel appreciated by the faculty here," Monica said.

In some cases, students joined groups like SI to compensate for what they perceived as poor teaching. Megan described the following experience with a professor: "He talked to the board all the time… He didn't teach it... This other guy that was my SI instructor… we could relate to him more."

Class format

As alluded to in the discussion of faculty-student relationships and faculty persona, students preferred classes that were interactive and encouraged dialogue among students; they also preferred the use of a variety of instructional methods, especially "hands on." Bob explains his preference:

> What I like about most classes is that I get hands on experience actually doing something as opposed to sitting in a lecture hall... what I find interesting is actually doing something as opposed to listening to it… I don't think there's one all-encompassing way your instructor can teach, but, um, my first year experience class, she helped with, she had us do this survey on the internet that told you what type of a learner you are, whether you're a video or audio visual [sic], kinesthetic which is doing stuff and then reading and writing. I think if an instructor encompasses all four of those, he's gonna reach the specific learning needs of at least most of the class.

Grace agrees, "I'm definitely more of a physical learner to be like hands-on and doing an activity or something." She prefers an interactive classroom as opposed to a lecture-only format: "The instructor's ability to relate to the students and present the information in a way that they feel it's important or it gets them involved in the process of learning the material instead of just a straight lecture class with no applications with what's going on outside of the classroom."

J. Scott goes so far to say that it is more than just interactive; class formats that are meaningful and connect with his prior experiences engage him. He said, "I like visual, I like stories to learn from, I like experience, I hate, this is how you do it and this

is why you do it. Not, here's a real life situation. I like stories and experience. Stories, mainly because I learn from them, I can relate somewhat to that."

Jack Doe prefers a variety of instructional methods:

> I like it when teachers keep things open, when they actually give you an opportunity to say how you're feeling, or your opinion or whatever's appropriate for the particular discussion...They try to mix it up a little, not focus completely on the text, but also bring in some things that they've picked up on their own. I've found that that also helps keep it interesting....makes his class interesting. He tries to keep things open for discussion. If he makes a mistake in class, you're welcome to correct him and he appreciates that, you know, whereas some instructors would prefer that you sit there and absorb like a sponge. Instead, you're actually free to debate, discuss, and interact.

Assignments and assessment

Contextual/classroom elements that relate to engagement go beyond the actual classroom setting and extend to the assignments and assessments being used. In particular, students preferred assignments that were effective learning tools, prepared them for the tests, and were relevant to their future applications of the content. They appreciated challenge when they could see that the assignments met these goals. "If they are a challenge, you work harder at it," Jill said. They valued the opportunity for both in-class and out-of-class assignments, when they are asked to "really go through and dig and understand what's' the real meaning," as Megan described. "When they can apply it to real world situations… when I can see the connection, that helps a lot," said Clara.

Lack of challenge resulted in a lack of learning, according to Jill. "Some of the classes are really easy and it just seems like if they're really easy then you don't learn." Sara thought that there should be a clear connection between the tests and the homework. Jerry pointed out that memorization did not contribute to meaning, and that some classes gave assignments that were only memorization, which reduced any meaningful application of the content. He found such classes—including the tests he studied for "really hard because it was all naming."

They also emphasized the importance of being held accountable for completion of assignments. Megan drew a parallel between meaningfulness and accountability: "Meaningful to me…means to work really hard and get graded on it." According to Jill, "people aren't going to read it if there's nothing they have to complete at the end."

Individual interest in classes plays a major role for Margaret, a business major. In her major field, "I want to know how to do it and why they do it and how the business system works… so my other classes… I find myself just studying for the test and I really don't remember anything after that." Megan, in contrast, was willing to put extra effort into really learning content. When she studies, she expects to "relearn the stuff so that I continue to have it; because… I'm paying to go to school and to learn so I might as well at least have it for the rest of my life."

Overall, although the engaged and less engaged students placed an equivalent value on a stimulating instructional environment, they were very different in their abilities to take advantage of that environment.

Summary of Results

This analysis indicated student characteristics that discriminated the highly engaged from the less engaged students and environmental aspects that contributed to engagement for both highly engaged and less engaged students. The student characteristics included personality and sense of self. The highly engaged students were outgoing, open to new experiences, and extroverted. They had a clear sense of their interests and who they were as individuals and described a well-developed sense of identity. Further, they had clear goals for their future. The less engaged students seemed shy and introverted, without clear goals or understanding of their own interests and desires. These characteristics seemed to underlie the students' senses of campus engagement, as well as their use and creation of resources, study skills, and overall approach to college.

Similar differences between engaged and less engaged students were even identified in their definitions of engagement. For the highly engaged students, engagement meant involvement in both academic and social activities. Further, these students' social lives and academic lives were linked to their interests and vision for their future. The less engaged students seemed to define engagement as involvement in a large number of activities. As a result of their personal characteristics and definitions of engagement, the students reported very different ties with the campus environment. The engaged students reported that the college offered many opportunities for involvement. They sought out resources and activities that were related to their academic interests and goals and reported satisfaction with the availability and quality of these opportunities. The less engaged students either reported that there was not enough to do on campus or that the activities were not inviting to them. This could relate to the students' introversion and reluctance to seek out activities as well as their lack of identity and vision. They had not identified personal strengths, interests, and goals so they were not able to find related activities. They did not make a personal connection with university life, but waited for others to direct them.

Discussion

Students were easily divided into engaged and less engaged categories. The engaged student differed from the less engaged in personality and sense of self. These personal characteristics were also linked to how students used support systems within the university, sought advice, and studied. Students' descriptions of these characteristics fit within Bronfenbrenner's (1977, 2005) ecological theory situating individuals within their broader environments. Individual students brought certain characteristics that were more or less optimal for engagement, including extraversion and a plan for their future. While individual characteristics seemed to most consistently and most strongly differentiate the engaged and less engaged students, they could not be explored in isolation of the

academic and broader campus environment. Classroom environment, advising, teaching styles as well as supportive social organizations contributed to engagement.

Personality

        That the highly engaged students seemed more extroverted and open to new experiences fits with prior literature (Komarraju & Karau, 2005). These students were more apt to seek new friendships, make use of campus resources, and engage in activities. In doing so, they created an informal network for support and advising. This network included other students, faculty, and administration. As such, they sought and received advice from people in all facets of university life and did not rely solely on the formal services on campus. The students who seemed more reserved and less open to experience did not develop such a network. Instead, they only relied upon the formal, mechanical university-created routines (e.g., advising days with general advisors). Therefore, they perceived limited support on campus and did not possess the knowledge or skills to set up a network.

Sense of Self

        The highly engaged students came to college with a clear sense of their personal interests, desires, and identity. They had developed future goals and could articulate how college fit into their life goals. Interests and vision linked academic and social activities. This directly supports the findings of Berzonsky and Kuk (2000) who found, in a quantitative study, that those with an informational identity style have more positive transitions to college, both academically and in interpersonal relationships.

        In addition, Conti (2000) has shown that students who come to college with personally chosen goals demonstrate higher levels of success in college. The present results suggest that this success may be due to the centrality of academics. In short, these students knew what they needed and how to get it. If they were ever unclear, they sought advice from within their broad network of older students, faculty, and administrators within their academic fields of interest.

        Students without a clear sense of identity and future goals did not recognize academics as a vehicle for engagement. For them, engagement meant joining clubs and organizations, but they lacked confidence and initiative to engage in these activities. Therefore, they did not have an academically-related network with access to more experienced students and faculty. In contrast to the engaged students, they did not also seek advising from faculty within a field of interest or take classes that piqued their interest. They registered only for required general education classes that were selected by university advisors. In short, the less engaged students lacked focus so they were not able to contribute wholly to any facet of university life.

        This difference was also apparent in their approaches to classes and studying. While none of the students reported studying much in high school, the highly engaged students came to college prepared to work hard. These students seemed to possess the personal qualities identified by Côté and Levine (1997, 2000) as optimal.

        The less engaged students tended to study alone. If they studied in groups, they often complained that the groups spent more time talking rather than studying (i.e., they

lacked structure). Their study routines tended to be similar to their strategies in high school. However, they often reported that the strategies did not work well for them. In contrast to the highly engaged students, they did not know how to improve their skills and persisted in studying in unproductive ways.

Côté and Levine (1997, 2000) further argued that it is not enough for students to possess optimal qualities, but the college environment must provide a nurturing fit for them, consistent with Bronfenbrenner (1977, 2005). Both the highly engaged and less engaged students agreed on valued characteristics of the classroom and instructional environment. Specifically, they valued environments in which faculty recognized students as individuals, were personally-revealing and communicated that they cared about students. Instructors conveyed a passion for the class and material. They used a variety of instructional techniques, especially interactive and collaborative methods, and applied the material to real-world situations. Assignments were meaningful, applied and focused on higher level processes encouraging creativity while still maintaining challenge. Finally, the students agreed that they preferred incremental assignments throughout the semester to help organize their studying and ward off procrastination.

Students who tend to be reserved need an environment that helps them identify their strengths and develop connections in a non-threatening manner. Students who are engaged and already possess a sense of self and a vision for the future would also benefit from this support.

Proposal for Development of Optimal Environment

The less engaged students indicated a lack of connection to the university as a whole while the engaged students developed such a connection through many facets of university life, especially utilizing academics as an entry point for engagement. Based on these results, we developed a list of bridges for the less engaged students to better tie to the university. These bridges are proposed on the basis of the reported experience of the less engaged students as well as the elements of success provided by the more highly engaged students. Future research implementing such bridges would shed additional light on the efficacy of such programs for all students. Future research could also specifically address the needs of less engaged students to better utilize resources and succeed in a university setting.

Bridges include (a) structured formal face-to-face exchanges with faculty and students, (b) opportunities to tie academics to real life, (c) access to more experienced students, (d) support for study skills to develop self-regulation, and (e) interest engagement to learn their own interests and find appropriate activities as well as opportunities to develop a sense of self and vision.

Engaged students identified a number of attitudes and behaviors that were crucial for their involvement in the university. In particular, engaged students made it clear that optimal engagement came through long range vision of the role of academics in their future, a perspective that less engaged students clearly lacked. These characteristics were natural for them, but very difficult for the less engaged to achieve. Clearly, the less engaged need a vehicle that will initiate their development of this vision and the attitudes and behaviors that support this growth.

In order to initiate engagement among the less engaged students as well as support the ongoing development of the highly engaged students, we propose a structured system in which academics becomes the access point to student engagement in university life. To facilitate the attitudes and behaviors that lead to student engagement, large format lecture sections could be re-organized. The course instructor would deliver lectures and provide large class experiences as appropriate, but each course would include weekly required out of class discussion groups of eight to ten students each. These groups would be led by a trained upper level student major in the field, facilitating small group face-to-face structured interactions that focus on course content and related issues. In addition, the instructor would provide first-year students with a guide for discussion preparation and guide the discussion leaders' preparations to lead the discussion. The primary content focus of these meetings would be to consider related issues and topics that could tie together ideas and theories, relate topics to real life experiences, and/or further explore difficult ideas.

Beyond learning course content in more depth, an additional purpose of the discussion groups would be including the building of self-regulation for social and academic growth. The first year students would develop resources and learn skills to carry with them throughout their college careers. The small group discussion groups would encourage interest in the subject, enrich study skills, encourage structured exchanges with peers, supply access to successful older students, and build a network of resources, which would be useful in all dimensions of campus life. It is important that the discussion leaders be junior or senior level students who have a clear academic focus and are involved in the university so that they can serve as resources for the freshmen to learn about campus resources, activities, and events, and initiate an informal network.

Participants, we believe, would benefit from this kind of structure (but future research is necessary to better determine the efficacy of implementing such structure). Students who are already engaged academically and socially in the university will have an opportunity to enrich their understanding of the discipline. They will have additional ways to engage with others in a forum that allows them to explore important questions in each field. In addition, senior students, in meetings with peers and professors to prepare for these discussion groups, will have the opportunity to earn credit and contribute to the major field and the vitality of the university of a group of students who need support to make the most of their education. Faculty, too, should benefit as they have opportunities to engage with senior majors as they prepare them to lead the discussions. Ideally, this connection would enrich the academic engagement levels of professors of undergraduates, leading to team research projects. Formal class time would remain traditional, allowing professors to disseminate necessary information to large groups and also to guide students in their preparation for discussion groups.

Limitations

The insights from this study were provided by a group of 27 students at a mid-sized state university in the upper Midwest. While we believe that the results are transferrable to other similar-sized public universities, this cannot be determined by one study alone. The present study focused on freshmen. It is likely that engagement changes across students' years of study.

Recommendations for Further Study

We did not track these students to link engagement with academic performance or retention. Prior research has drawn these connections, but primarily with quantitative data. Further, we did not obtain retrospective information about high school engagement beyond that offered by the students during interviews. Students who felt it was important and relevant offered discussion of high school engagement. We found it meaningful that some did and some did not volunteer such information. However, it is possible that additional insight could have been gained from linking prior engagement to current engagement. These are areas for future study.

Future research could investigate the degree to which these participants' ideas are shared by larger groups of students. Verification in this study was supported by consistent data across participants. Future study through a broader survey could determine whether similar results would be obtained from different settings, including community colleges, large public institutions, or predominantly distance-learning institutions.

A second set of studies could result from implementation of the structured discussion groups described above. Studies of the efficacy of this approach could address a number of potential outcomes including learning and grades, changes in academic motivation and retention, campus savvy students' support systems, as well as their interests and goals.

In addition, future research could also address benefits to the upper class student discussion leaders and faculty. Specifically, research could focus on benefits that could be seen in upper class students' increased desire to pursue further education in the field. In addition, research could focus on benefits to faculty who could find increased satisfaction in teaching students who are more highly motivated to learn and have developed a stronger interest in the subject. This could also be evidenced in teaching evaluations. All of these areas are ideal for future studies.

In sum, these results add to the current research by examining student engagement within an ecological perspective. Most prior research has examined either student factors or environmental factors. We demonstrated that engagement is more complicated. To better understand engagement, we must look at the interaction of the student within his/her college environment. Further, we utilized qualitative methods, allowing the student voices to guide both the definition of engagement and our understanding of student engagement within the college. The results support the notion that positive college engagement is, in part, a function of student characteristics like personality, identity, and vision. For the most optimal results, these optimal student characteristics must be nested in nurturing environments that support students' traits, interests, values, and goals. The present results lend qualitative support to prior quantitative results and add the students' voices to enrich our understanding of freshman engagement.

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Appendix A

Summary of Interview Process as Presented to Interviewers

Interview protocol overview

I.   Set up tape and room. Put date, time, random id, pseudonym, and interviewer name on tape and case.
II.   Introduce yourself and what you are about.
III. Interviewer in a larger study, interviewing 30 undergraduates
IV.   Consent Form
    a.   1 copy for undergraduate to keep, 1 to sign and return
    b.   Ask if they have any questions
    c.   Assure them of confidentiality – any identifying information will be destroyed
V.   Pseudonym selection
VI.   Call them by this throughout the interview to ensure confidentiality.
VII. Summer email to send transcript – we'll ask them to review it for accuracy and if they want to add something
VIII. Start tape – double check.

IX.   (If you have to turn over the tape, double check that it is recording).
X.   Introductory comments and another opportunity for questions
XI.   Interview
XII.   Ask if they have other questions. Remind them that if they have more questions in the future, they have the faculty contact information on the consent.
XIII. Thank them.
XIV.   Put tape, consent form, information sheet (with pseudonym) in an envelope. Write the pseudonym and random ID on the envelope.

Interview Process

Introduction

> We are studying student engagement. Engagement is when students feel that they are active participants in campus life and feel that they are strongly connected to and involved in their own learning and to the academic and social life on campus. (If they need additional definitions, you can provide synonyms like involved, occupied, engrossed.) We will address four categories: academic, study skills, extra-curricular activities, and social and personal support. Be assured that once data is collected, information that might link this information to you will be destroyed. Your responses are confidential.

1. On a scale of 1 to 10 how would you rate your engagement at USD, with 1 being not at all engaged and 10 being completely engaged in USD?
    Why did you select this rank? What does engagement mean to you?

Academic

2. How did you decide upon which courses to take?
    Who helped you make those decisions?
    How satisfied were you with the process?
3. What makes a class interesting to you? What stimulates interest?
    What elements can you identify?
    Why?
4. What are the most important characteristics of a class to facilitate learning?
    What kinds of tests and assignments do you think contribute most to your learning?
    What kinds of homework did you find most meaningful and why?
5. What influence have particular faculty made in your first year? (Positive and negative)

Study skills

6. How do you study?
    Is it effective?
    With whom do you study? For how long or how often?

What study strategies do you use? (e.g., repetition, outlining, mnemonics)

Extra-curricular activities

7. What extra-curricular activities are you involved in? Why did you choose them?
   What did you gain from participating?
   What did you learn about yourself?
   What did you learn about others?
8. Are you employed? How much do you work?
   What do you gain from your work?

Personal and social support systems

9. Characterize your perception of the campus environment at USD.
   What is challenging for you at USD?
   Have you faced any ethical or personal dilemmas? (If necessary, can probe with social, academic, personal, other responsibilities.)
   What support systems did you use to resolve these issues?
   How effectively were the issues addressed?

Closure

10. What will you do differently next year? What will you do the same?
11. If you could provide advice to incoming freshmen, what would it be?

To close the interview

12. Ask if they have other questions. Remind them that if they have more questions in the future, they have the faculty contact information on the consent.
13. Thank them.
14. Put tape, consent form, information sheet (with pseudonym) in an envelope. Write the pseudonym and random ID on the envelope.

Appendix B

Data Analysis Procedures: A Generic Model

Before you begin: *Write a summary of YOUR experiences as an undergraduate and the elements that kept you involved or that discouraged your engagement. Recognize that these experiences could influence what you interpret in the transcripts you read. You will need to make a conscious effort to "bracket" these preconceptions—to free yourself from your experiences and the bias that could distort your data analysis. Explain how you will maintain an open mind.*

You will have six transcripts to work through

        Three from the students you interviewed and three from one other individual. Each of you will handle these independently. After that, we will come together again and work to synthesize the data. To prepare for the next meeting, please follow the following steps to analyze the data assigned to you.

Basic steps in data analysis are *iterative*, or repeating

- **Reading/memoing**. At this stage, your goal is to become familiar with the data; you want to get an initial sense of the individual transcripts, and then the transcripts as a whole. This is your only "fresh encounter" with the words of the participants--after this, you will have formed some ideas that will focus your attention. You may want to simply read the transcript the first time through. Then go back with a highlighter and a pen for margin notes of key ideas that emerge as you read.

- **Describing**. At this stage, you examine the data in depth to provide detailed descriptions. Go through the transcripts one at a time, consider the notes and highlighting, and then *provide a narrative picture*-- a description-- of the insights and concerns provided by *each* individual. Do this for each transcript you have.

- **Categorizing.** Now look at the information you have interpreted from individuals. What elements seem to be common among the group of transcripts you analyzed? Write a description of each of these categories and how individuals connected to them. This will most easily be integrated with a matrix (Alphabetize participants from left to right for easier integration later).

	Pseudonym1		Pseudonym 2	Pseudonym 3	Pseudonym 4
Theme 1: Title Define	*Describe individual in relation to theme*	*Insert quotes that illustrate*			
Theme 2					
Theme 3					
Theme 4					
Theme 5					

- **Identifying Themes**. Consider a theme "title" or clear label for each of the classifications.

- **Supporting.** Return to the transcripts and find evidence in participants' words that define and illustrate the themes you have identified. Also look for "disconfirming evidence"—contradictions or apparently contrary points. Incorporate the quotes into your matrix.

- **Partner Meetings.** Next, at a time convenient for you, meet with your analysis partner and integrate your individual findings. Compose one **integrated matrix.**

Don't just add on—notice where you have overlap, etc. Discuss in depth so you can explain your insights at the next large group meeting

- **Large Group Meeting,** Bring your written self analysis, the narrative descriptions of the participants by pseudonyms, and the completed matrix with you to the next meeting. Group matrices will be integrated into one mega-matrix.

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