Undergraduate Student Course Engagement and the Influence of Student, Contextual, and Teacher Variables

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Abstract

The purpose of this study was to examine the relationship between undergraduate student course engagement and several independent variables. Total participants included 300 (N) undergraduate students. Students completed three instruments measuring course engagement, teacher verbal immediacy, and teacher nonverbal immediacy. It was concluded that class size and teacher verbal-immediacy significantly predicted student course engagement. Classes under 30 students significantly influenced factors of engagement. The unique influence of immediacy behaviors supported the researchers' assertions coupled with previous research (Frymier & Houser, 2000; van Uden, Ritzen, & Pieters, 2014; Zepke & Leach, 2010). College teachers should be aware of the role immediacy behaviors play in student engagement within their classrooms. Teachers who demonstrate energy and concern for student learning through being inclusive, encouraging, and clearly communicate expectations can positively influence student engagement in the classroom. Restructuring large courses into smaller working groups could facilitate the opportunity for teachers to approach students more directly and personally. Future research should use observations to assess student behaviors comparing perceived engagement in the classroom. Quantifying the frequency of teacher immediacy behaviors alongside student perceptions could provide context for teacher behaviors. Qualitative studies around factors of engagement could provide context to the cognitive processes behind student behaviors.

Key Words: class meeting time; class rank; class size; class status; nonverbal immediacy; student engagement; teacher immediacy behaviors; verbal immediacy

Introduction

College student engagement is a multidimensional concept which many researchers have studied in an effort to understand aspects leading toward student success at the secondary and post-secondary levels of education (Fredricks, Blumenfeld & Paris, 2004). Diversely defined across the literature, engagement may most succinctly be conceptualized as a student's connection to learning and the learning environment which incorporates behavioral, emotional, and cognitive aspects. Students who are not engaged in their schooling and the process of their post-secondary education early in their career put themselves at risk to inadequately acquire the knowledge and skills needed for transfer to their future educational and work experiences (Miller, Rycek, & Fritson, 2011). Ultimately, because of these consequences, student engagement needs significant consideration by educators to better understand student behavior and in addressing students' educational needs

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(Christenson et al, 2008). Obtaining student perceptions of their engagement within the context of their individual courses can provide instructors with evidence to more clearly describe student behaviors within the classroom (Handelsman, Briggs, Sullivan, & Towler, 2005; Mandernach, Donnelli-Sallee, & Dailey- Hebert, 2011; Svanum & Bigatti, 2009).

In relation to the college classroom, student engagement is not extensively addressed in extant literature. Engagement is most extensively analyzed globally within the total college experience through the work and related works of George Kuh. With that in mind, an issue facing the preponderance of literature in student engagement is that the distinction between the antecedents, state, and consequences of engagement is not often made (Kahu, 2013). Handelsman et al. (2005) proposed that describing and understanding student engagement and its antecedents particularly at the course/classroom level, is one avenue for continuous improvement to undergraduate education in teaching and learning environments. Further, describing the antecedents of student engagement could assist course design and instructional decision-making for college teachers. The more instructors know about what students perceive within the classroom regarding the activity taking place, the more equipped they will be to shape and reshape the learning environment. Thus, it is important to describe the perceived engagement of undergraduate students and determine the variables in and about the classroom which encourage that engagement.

Review of Literature

As previously described, engagement is a student's connection to their learning and the learning environment which incorporates behavioral, emotional, and cognitive aspects. When these aspects are evaluated together they describe the psychological processes and physical activities students conduct during a class session (Fredricks etal., 2004; Newmann, Wehlage, & Lamborn, 1992). In essence, student engagement in the classroom is the thinking and doing demonstrated by the student related to learning through the discourse of the classroom. Engagement is considered to sit on a continuum, whereby levels of engagement can fluctuate from high to low and adjusted accordingly to personal and environmental conditions in the learning environment (Barkley, 2010; Newmann et al, 1992). Student course engagement, the focus of the present study, is comprised of four factors including skills, participation/interaction, emotional, and performance engagement as identified by Handelsman et al. in their 2005 study. Fredricks et al. (2004) encouraged researchers to study engagement at the classroom or micro-level in order to identify the appropriate antecedents of engagement at play. To that end, researchers suggest studying course engagement as the interaction between the individual and components of the learning environment which can help college teachers better understand the student experience and more specifically identify methods to improve engagement in the classroom (Fredricks et al., 2004; Handelsman et al., 2005).

Engagement in the discourse of the classroom implies the student takes an active versus passive role in their learning (Barkley, 2010). This role is partially constituted by the amount of time on-task a student exhibits in addition to their active participation in learning activities according to Chickering and Gamson (1987). Taking and owning an active role in learning and within the learning environment ultimately encourages a higher degree of information processing, thereby improving learning and positive perceptions of the learning environment (Handelsman et al., 2005). Observationally, the behaviors associated with student engagement in the classroom; including, general attentiveness, eye contact, and raising hands to ask questions, all of which demonstrate an interest in the subject matter being discussed (Mandernach et al., 2011).

Engaged learning, as described, is the mirror image definition of higher levels of interest in the subject matter and higher levels of academic effort by the student (Miller, Rycek, & Fritson, 2011). Students making use of class time and participating in classroom activities improves their learning (Macheski, Buhrmann, Lowney, & Bush, 2008). Additional resulting outcomes of an engaged student includes increased student satisfaction with their coursework and the overall schooling experience (Tinto, 2012; Zyngier, 2008), improved career development focus (Kenny et

al., 2006), more efficient time use (Schilling & Schilling, 1999), and multiple measures of academic performance including course grades, college GPA, and college retention (Carini, Kuh, & Klein, 2006; Gonyea, 2006; Handelsman et al., 2005: Miller, Demoret, & Wadkins, 2009; Svanum & Bigatti, 2009). Speaking more globally, students who reported higher levels of engagement in college activities emerged from college more academically prepared (Hu & Kuh, 2002). Although, to make a distinction, Willms, Friesen, and Milton, (2009) contended that global engagement in the broader college activities does not directly equate to academic and intellectual engagement.

The Classroom Environment and Engagement

The environment surrounding the student can influence their engagement within the classroom. Large classes, those with 30 or more students, can hamper an opportunity for students to participate which in-turn discourages them from engaging fully in the first place (Rocca, 2010; Pascarella & Terenzini, 2005; Weaver & Qi, 2005). Cotton (2000) found that proportionally, smaller classes allow more students to participate in discussion. The time of day in which the class is scheduled also influences engagement. Mearns, Meyer, and Bharadwaj (2007) reported students were least engaged, enjoyed the course the least, and negatively perceived teacher/tutor assistance during early morning sessions. Further, the facilities and physical spaces in which these classes take place influenced student engagement (Bonfiglio, 2004). In a quasi-experimental study, Brooks (2012) concluded classroom spaces shaped students' on-task behaviors; behaviors which demonstrated students' active involvement throughout a class period.

The Teacher and Engagement

While the behaviors of students and aspects of the learning environment constitute considerable proportions of engagement, the teachers and their approaches to teaching in the classroom also encourages or discourages student engagement (Chickering & Gamson, 1987; Gasiewski, et al. 2012; Zepke & Leach, 2010). Even with many strategies for active learning to combat disengagement (Barkley, 2010) and an understanding of student characteristics (Kuh et al., 2005; Rocca, 2010; Zepke & Leach, 2010), student apathy as perceived by teachers is a tangible phenomenon within college classrooms (Jonasson, 2012; Kahu, 2011; van Uden, Ritzen, & Pieters, 2014).

Noteworthy too, is the interpersonal exchanges between students and teachers toward understanding student engagement in the classroom (Gasiewski, et al. 2012). Frymier and Houser (2000) reported teacher communication skills positively associated with student affective learning and learning indicators. In concert with those findings, Kuh and Hu (2001) reported from a sample of over 5,000 college students, interpersonal interaction with faculty positively influenced student effort related to educationally purposeful learning activities and overall student perceptions of the learning environment.

The Student/Teacher Relationship and Engagement

The college classroom is the environment which initiates interactions between the teacher and their students. These interactions and time spent adjusting to one another begin the development of the relationships between these actors (Newmann, 1992). Some researchers (Garrett, 2011; Jonasson, 2012) suggest that at its foundation, student engagement is really about the progression of relationships with learning and the learning environment. Therefore, student engagement is enhanced and disengagement combated by the relationships developed in the learning environment (Macheski, Buhrmann, Lowney, & Bush, 2008; Rocca, 2010). Relationship development between student and teacher is essential to creating a positive classroom climate

(Darling-Hammond & Bransford, 2005) and encouraging students to become involved in their learning (Rocca, 2010; Tinto, 1997).

Mehrabian (1972) purported immediacy cues are the first step in relationship development and toward meaningfully capturing student interest in the classroom. Teacher immediacy behaviors is an area of study, with roots in communications, associated with student-teacher relationships. Similar to engagement, immediacy behaviors employ cognitive, emotional, and behavioral aspects between the teacher and learners. Immediacy behaviors elicit behavioral and cognitive responses to social interactions which reduces psychological distance (Mehrabian, 1972) and includes such actions as facial expressions, eye contact, gesturing, tone of voice, word choice, and questioning strategies. Verbal and non-verbal immediacy behaviors are directly linked to student's perceptions of learning in addition to learning motivation (Christophel, 1990; Frymier, 1994; Kearny, Plax, Smith, & Sorensen, 1988; Velez & Cano, 2008; 2012). Kelley and Gorham (1988) found that teacher immediacy increases student arousal and attention in the classroom, which coincidently are essential elements for student engagement. The similar dynamics of engagement and teacher immediacy lends credibility to a more substantive evaluation of the impact of teacher immediacy on student engagement. In the literature, there are many assumptions based upon the behaviors teachers should elicit to facilitate student engagement in the classroom, but little if any empirical evidence connects teacher immediacy and student engagement.

Basing instructor assumptions related to student engagement solely off the observations of student behaviors in the classroom likely paints an incomplete picture of a student's engagement (Handelsman et al., 2005; Schreiner & Louis, 2008). Assessing and describing the additional dimensions comprising student engagement pertaining to their actual classes will provide instructors with a greater understanding of student engagement beyond what is skin deep. This knowledge in addition to students' perception of the teacher's behaviors could help instructors develop a more engaged classroom environment based off empirical evidence of the state of engagement and what engages students, as opposed to anecdotal assumptions.

Framework

The framework, created by the researchers, was founded in student engagement and immediacy literature. Figure 1 details the interaction between the considered independent variables identifiable in the classroom. Student course engagement is the outcome. Class size, course status, class time, and student rank were considered the covariates within the present study because each variable is represented in literature as influential on student engagement. Teacher verbal immediacy and nonverbal immediacy behaviors were considered the variables of interest for the present study, as they are believed to impact student engagement in the classroom. Thus, considered together, influence from the teacher, influence from within the individual, and environmental (contextual) influences are believed interact to produce varied levels of an individual students' engagement in each and every course.
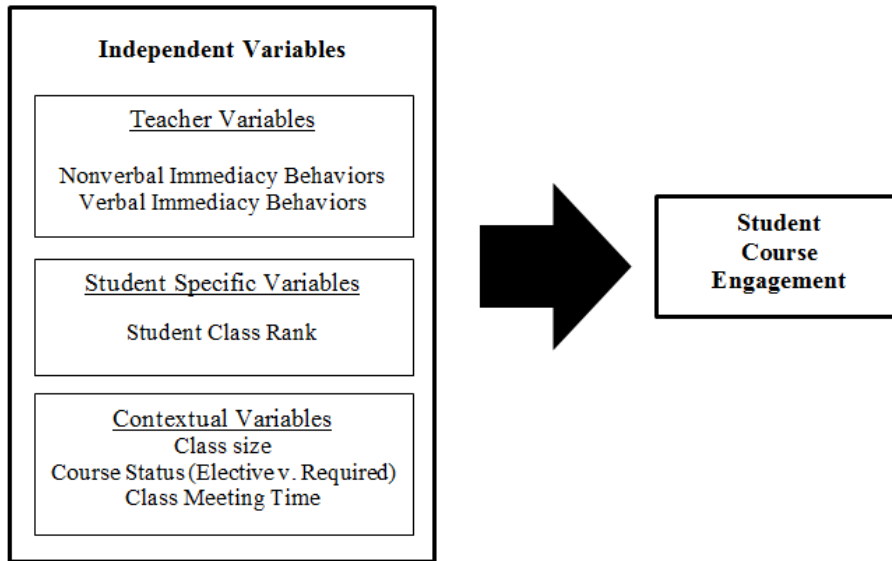
Figure 1. A Framework for Student Course Engagement

Purpose and Objectives

The purpose of this study was to examine the relationship between undergraduate student course engagement and independent variables including teacher verbal and nonverbal immediacy behaviors, college course status, class time, class size, and student class rank. The present study addressed the AAAE National Research Agenda as the authors sought to further understand effective teaching and learning processes in post-secondary environments (Doerfert, 2011). The following objectives aimed to:

1. Describe undergraduate student course engagement.
2. Describe students' perceptions of teacher nonverbal and verbal immediacy behaviors.
3. Describe undergraduate student college course status, class time, class size, and student class rank.
4. Describe the contribution of teacher immediacy behaviors and undergraduate student college course status, class time, class size, and student class rank toward undergraduate student course engagement.

> H_{o1}: Teacher verbal and nonverbal immediacy behaviors did not explain a significant ($p > .05$) proportion of variance in student course engagement.
> H_{a1}: Teacher verbal and nonverbal immediacy behaviors explained a significant ($p < .05$) and unique proportion of variance in student course engagement.

Methods

This descriptive correlational study examined the relationship between the dependent variable of undergraduate student course engagement and independent variables of teacher verbal immediacy behaviors, nonverbal immediacy behaviors, college course status, class time, class size, and student class rank. The present study employed a one-measurement cross-sectional survey design (Creswell, 2009; Spector, 1981) where undergraduate student subjects completed a paper questionnaire to acquire their perceptions of the primary variables of course engagement and teacher verbal and nonverbal immediacy behaviors. To appropriately account for student

perceptions, a five-point unipolar scaled question structure was utilized consistent with previous studies examining the constructs of student course engagement (Handelsman, Briggs, Sullivan, & Towler, 2005; Svanum & Bigatti, 2009) and teacher immediacy behaviors (Christophel, 1990; Gorham, 1988; Velez, 2008). The University of Missouri Institutional Review Board (IRB) reviewed and approved the present study and data collection procedures prior to instrument administration. Students were informed of their rights and benefits of participation in the study through a cover letter attached to the instrument.

Population and Sample

The target population for this study consisted of undergraduate college students enrolled in courses during the spring semester of 2014. A sample was selected from the total population of 2,093 undergraduate students enrolled in courses in the College of Agriculture, Food, and Natural Resources at the University of Missouri. Previous course enrollments were reviewed against those analyzed within the present study. Consistency in enrollment of ages of the students and college majors represented in the courses were observed over previous years. It was determined the participants were a representative time and place sample of the population (Greiman & Covington, 2007; Oliver & Hinkle, 1982; Smith, Garton, & Kitchel, 2010). Thereby, the target population is undergraduate students enrolled in agricultural education and leadership courses at the University of Missouri. Course selections were based on class size, accessibility, and the enrollment of a diverse variety of majors. In total, 359 (*N*) undergraduate students were available as potential subjects across the three courses. Thirteen (*n*) students were enrolled in more than one of the selected three courses and were asked to identify this on the instrument to prevent duplication and overrepresentation of their perspectives in the study. Total participants included 300 (*N*) students with an overall response rate of 84 percent. The 46 students unaccounted for were either absent or declined to complete the instrument.

Instrumentation

In an effort to increase the scope of coursework and instructor contact, the measurement selected for this study involved students' reflection on *the course immediately preceding the course* in which data collection occurred. To explain, students entered the classroom where data collection was arranged. Instead of requesting the students focus solely on the instructor for the present course in which they sit, they were asked to reflect on the course, their engagement, and the teacher in the most recent class they attended. Thereby, if 50 students were in the classroom, they could theoretically, offer reflection for this instrument on 50 different courses and teachers. This method of data collection was employed in previous research studies evaluating teacher immediacy behaviors (Christophel, 1990; Christophel & Gorham, 1995; Frymier, 1994; Gorham, 1988; Kelley & Gorham, 1988; McCroskey, Sallinen, Fayer, Richmond, & Barraclough, 1996; Velez & Cano, 2008; Velez & Cano, 2012) and is believed to limit several threats to internal and external validity. The method was designed to maximize variability of coursework and instructor contact in addition to alleviating discomfort of the instructor of the course where the instrument was administered. This method was explained and held consistent across all parts of the questionnaire.

The Student Course Engagement Questionnaire (SCEQ) was created through the work of Handelsman, Briggs, Sullivan, and Towler (2005). Four factors describing course engagement emerged from exploratory factor analysis; skills, emotional, participation/interaction, and performance engagement. The SCEQ has demonstrated effectiveness in assessing student course engagement across multiple studies (Miller, Demoret, & Wadkins, 2009; Svanum & Bigatti, 2008) and consists of 23 Likert-type scaled items assessing student's perceptions of their behaviors, thoughts, and feelings within the course. The five-point scale and descriptors for each question are

included in Table 1. Handelsman, Briggs, Sullivan, and Towler (2005) reported Cronbach's alpha reliability coefficients for each of the four factors ranging from .76 to .82.

The Verbal Immediacy Behaviors (VIB) instrument consisted of 20 Likert-type scaled questions assessing student's perceptions of the frequency with which they observe the teacher demonstrating a specific behavior. Previous research utilizing the present form of the VIB reported split-half and summated reliability coefficient estimates ranging from .83 to .94 (Christophel, 1990; Velez, 2008). Utilizing an identical five-point scale to the VIB, the Nonverbal Immediacy Behaviors (NIB) instrument consisted of 14 Likert-type scaled questions assessing student's perceptions of the frequency with which they observe the teacher demonstrating the specific behavior. The five-point scale and descriptors are described in Table 2. Previous research utilizing the present form of the NIB reported summated reliability coefficient estimates ranging from .82 to .94 (Christophel, 1990; McCroskey et al., 1996; Titsworth, 2004; Velez & Cano 2007; Velez, 2008).

The final section of instrumentation included eleven demographic questions and statements. Items specific to the student included: class rank, gender, college major, and age. Participants were asked to answer questions specific to the course: class size, course status, course prefix, and class meeting time. Including the contextual and demographic variables was supported by previous research in both engagement and immediacy. A panel of experts consisting of two associate professors and two assistant professors in education reviewed the instrument for face validity, only. Content validity was established for the SCEQ, NIB, and VIB in previous literature (Christophel, 1990; Handelsman et al., 2005; McCroskey et al., 1996; Velez, 2008; Velez & Cano, 2008). Post-hoc reliabilities were not sought as the structure of instrument items included were not deviated from the aforementioned original instruments and previous populations studied were undergraduate students.

Data Collection

Data were collected at a single class period at during week 12 of the spring 2014 semester. Previous research in teacher immediacy suggest no significant differences between responses collected at multiple points or at a single point midway in the semester (Christophel & Gorham, 1995; Frymier, 1994). Teachers are believed to establish their relationships and students establish their attitudes around all elements of the course after the first few weeks of the course (Christophel & Gorham, 1995). Therefore, the researchers chose to collect data during week 12 as permitted by the participating faculty.

Analysis

The data analysis included descriptive measures for variables at each level of measurement. Correlational and regression analysis were performed to create a predictive hierarchical model including the dependent variable (student engagement) and the independent variables (nonverbal teacher immediacy, verbal teacher immediacy, class size, course status, class meeting time, and student rank). Regression analysis was deemed appropriate for the purposes of this study as it was consistent with previous research analyzing both immediacy and student course engagement (Christophel, 1990; Handelsman et al., 2005; McCroskey et al., 1996) to identify the comparative importance of the contribution to student engagement offered by the identified independent variables. Field (2009) suggested completing analysis on a series of assumptions in order to accurately draw conclusions from a data set when performing regression analysis. Accordingly, all assumptions were checked and the data set was deemed appropriate to draw conclusions from regression analysis.

Findings

Characteristics of the sample include: The average age of the sample was 20.4 years with a median age of 20 years. The greatest number of respondents were of junior standing (34.6%, *n* = 103) whereas the fewest represented were fifth year students (2.3%, *n* = 7). The distribution of the sexes for the sample favored females (54.0%, *n* = 161) over males (46.0%, *n* = 137) of those who reported. Students reported 28 unique majors from across the University of Missouri. Within the top four majors, the largest number of students identified themselves as hospitality management majors (37.1%, *n* = 111) followed by agricultural education (11.0%, *n* = 33), sports management (9.3%, *n* = 28), and biochemistry (6.7%, *n* = 20).

Research Objective One

Research objective one was to describe undergraduate student's course engagement. The four engagement factors and total engagement were reported using means and standard deviations to describe the level of engagement students perceived in a single college course (see Table 1). The mean for total engagement in the course students selected to report on was *M* = 3.39 (*SD* = 0.61) out of a possible *M* = 5.0. The engagement factor which produced the highest mean was the performance factor (*M* = 4.00, *SD* = 0.81) which represented students' perception of how well they anticipated doing in the class relative to grades, primarily. Less so, students reported the lowest engagement factor mean (*M* = 2.91, *SD* = 0.84) was related to their participation/interaction within the course reported. Participation/interaction engagement represented students' perceptions of their actual participation in class in addition to their interactions with other students and their instructors (Handelsman, Briggs, Sullivan, & Towler, 2005).

Table 1
Student Engagement Measures for Total Engagement and the Four Factors of Engagement as Measured by the Student Course Engagement Questionnaire (SCEQ) (*N* = 300).

			Range	
Engagement Factor	*M*	*SD*	Min	Max
Total Engagement	3.39	0.61	1.35	4.91
Performance	4.00	0.81	1.00	5.00
Skills	3.65	0.68	1.56	5.00
Emotional	3.16	0.93	1.00	5.00
Participation/Interaction	2.91	0.84	1.00	4.83

Note. SCEQ used a five point Likert-type scale: 1 (not at all characteristic of me), 2 (not really characteristic of me), 3 (moderately characteristic of me), 4 (characteristic of me), and 5 (very characteristic of me).

Research Objective Two

Respondents were asked to reflect upon the teacher who led the course selected in the engagement section of the instrument. Students reported their perceptions of teacher immediacy on 14 nonverbal and 20 verbal immediacy items which comprised each of the two constructs of immediacy. Each construct used identical five point Likert-type scales which measured the frequency in which behaviors of teachers were observed by the student. Higher mean scores for the immediacy constructs indicates the instructor is more immediate (Christophel, 1990). Descriptive statistics were reported in Table 2. Students perceived their teachers as moderately immediate for both verbal behaviors (*M* = 3.01, *SD* = 0.71) and nonverbal behaviors (*M* = 2.99, *SD* = 0.32) because on average, teachers *occasionally* utilized immediacy behaviors in the student's classrooms.

Table 2
Student Perceptions of Teacher Verbal and Nonverbal Immediacy ($N = 300$).

Immediacy Construct	*M*	*SD*	Range Min	Range Max
Verbal Immediacy	3.01	0.71	1.40	4.75
Nonverbal Immediacy	2.99	0.32	1.93	3.86

Note. Immediacy used a five point Likert-type scale: 1 (Never), 2 (Rarely), 3 (Occasionally), 4 (Often), and 5 (Very Often).

Research Objective Three

Respondents reported on personal and course-related variables utilizing predetermined categories for each item. The majority of students (85.5%, *n* = 253) reflected on a degree required course for the purposes of this questionnaire and 14.5 percent (*n* = 43) reported on an elective course. Over half (52.4%, *n* = 157) of the respondents reported on courses which were scheduled in the morning, before 11:30 am. Only six students (2.0%) reported on evening courses, those after 5 pm. Students most frequently reported data for this study based off their enrollment in courses with a population of students ranging from 1-29 (n = 102) followed by courses with 150 or more students (19.3%, *n* = 58), and courses with 30-59 students (15.3%, *n* = 46). Student class rank was reported in the first paragraph of this findings section.

Research Objective Four

Research objective four was to describe the contribution of teacher immediacy behaviors and undergraduate student college course status, class time, class size, and student class rank toward undergraduate student course engagement.

Ho$_1$: Teacher verbal and nonverbal immediacy behaviors did not explain a significant ($p >$ .05) proportion of variance in student course engagement.

Ha$_1$: Teacher verbal and nonverbal immediacy behaviors explained a significant ($p < .05$) and unique proportion of variance in student course engagement.

Hierarchical regression was utilized to explain the unique variance in engagement (see Table 3). Neither skills nor emotional engagement regressed against the four covariates (e.g. class time) resulted in a significant initial model. However, initial regression models were significant for total engagement and the remaining factors of participation/interaction and performance engagement. Among the covariates, class size was the sole significant predictor for total engagement (*t* = 3.43), participation/interaction engagement (*t* = 5.33), and performance engagement (*t* = 2.70).

The addition of verbal and nonverbal-immediacy behaviors to the second block of each model produced a significant model for total (R^2_{adj} = .14), emotional (R^2_{adj} = .07), participation/interaction (R^2_{adj} = .25), and performance engagement (R^2_{adj} = .04). Teacher verbal immediacy behaviors produced a moderate effect (Cohen, 1988) in total engagement (*d* = .55), emotional engagement (*d* = .50), and participation/interaction engagement (*d* = .76). Small (*d* < .50) or trivial (*d* < .20) effect sizes were produced with all other variables within the hierarchical regression models for each dependent variable. Teacher verbal and nonverbal-immediacy behaviors explained a significant proportion (*p* < .05) of additional variation after controlling for the potential covariates. Therefore, leading us to reject the null hypothesis in favor of the alternative hypothesis for total, emotional, participation/interaction, and performance engagement.

Table 3
Hierarchical Multiple-Regression of Engagement on Covariates and Immediacy (n=300)

Engagement Factor	Variable	B	*B*	t	d	*F(df)*
Total	Constant	2.11		6.14	.73	8.54*(6,285)
	VI	.27	.31	4.67*	.55	
	NVI	.15	.08	1.27	.15	
Skills	Constant	2.68		6.60	.78	1.93 (6,285)
	VI	.12	.12	1.73	.21	
	NVI	.19	.09	1.34	.16	
Emotional	Constant	1.84		3.38	.40	4.73*(6,285)
	VI	.37	.28	4.12*	.50	
	NVI	.08	.03	.44	.05	
Participation/Interaction	Constant	1.17		2.64	.31	17.22*(6,285)
	VI	.47	.40	6.44*	.76	
	NVI	.10	.04	.67	.08	
Performance	Constant	2.72		5.66	.67	3.03*(6,285)
	VI	.13	.11	1.56	.19	
	NVI	.25	.10	1.53	.18	

Note. *p* < .05, VI = verbal immediacy, NVI = nonverbal immediacy

Conclusions/Recommendations/Implications

In this study, the researchers described undergraduate student course engagement and variables which contribute to course engagement. In reference to the operational predictive model presented in this study, the influence of several variables on engagement were confirmed while the influence of other variables were newly explored. Several interpretive limitations exist with the results of this study. Notably, due to the research design, the subjects selected represent a time and place sample and consequently the results are only generalizable to future students enrolled in the included courses within the University of Missouri. Achieving student heterogeneity was attempted through selecting courses with large student populations, but not controlled for in this study. However, the findings of this study revealed potential for new areas of inquiry related to student engagement through the incorporation of teacher verbal and nonverbal immediacy behaviors. According to the findings, student engagement doesn't happen in a vacuum.

For objective one, student perceptions of their engagement are seated squarely in the middle ground. Students showed the most engagement towards assessing their overall performance in their courses, lower emotional engagement to material and coursework, and a nearly bystander status when evaluating students' participation in the classroom. Through this baseline of empirical engagement evidence, the perception by some college teaching staff of student apathy and disinterest may be warranted (Jonasson, 2012; Kahu, 2011; van Uden, Ritzen, & Pieters, 2014). Students may not be comfortable interacting with their instructors or collaborating with classmates, which may ultimately limit learning and a deeper understanding of material (Macheski, Buhrmann, Lowney, & Bush, 2008). To counteract this, Barkley (2010) suggests incorporating diverse active learning opportunities within the classroom. Additionally, structured group activities can encourage students to consider multiple viewpoints.

In objective two, considering the entire undefined group of college teachers in this study, according to the students, the teachers are neither immediate nor not immediate. This may be an accurate overall portrayal as some teachers are likely highly immediate while others less so. This implies there is room for improvement in the frequency teachers' express immediacy behaviors (Frymier, 1994; Kearney, Plax, Smith, & Sorensen, 1988). Repercussions of less immediate teaching is a distinctive psychological distance between teacher and students (Mehrabian, 1981). Teachers must pay close attention to their variety of gestures, eye contact, and movement around

the classroom to enhance nonverbal perceptions. Teachers should consider recording and watching their teaching in action on occasion and inventory their own mannerisms. How do you talk to your students? What is your physical proximity? A sincere genuineness is imperative when evaluating and improving immediacy. Teachers may need to initiate more conversations, use inclusive language, and personalize course material to heighten student connection and relationships in the classroom. This potentially implies a lack of knowledge or training in appropriate teaching methods, which should also be taken into account in both future studies as well as university-wide. A teacher's responsibility is to connect the learner with the learning, not merely disseminate knowledge. In order to accomplish this, all teachers must make the effort to connect with the humans in their classrooms.

In objective three, most students reflected on degree-required courses which may indicate the need to further divide the choices for this variable to increase differentiation. As degree plans are reduced toward 120 total credits at most institutions, nearly all courses within a degree plan could be considered required from the students' viewpoint. Over one-third of the respondents reflected on courses enrolling less than 30 students. Considering two-thirds of the respondents were of sophomore or junior standing, this finding implies students are gaining exposure to courses fostering an engaging environment (Rocca, 2010), even in a large institution with more than 30,000 students. Noteworthy too, is the proportion of students who reflected upon courses with 150 or more students. This characteristic of the data set is important to recognize as this group of students may experience a different classroom environment than those in substantially smaller courses. Shown across all age groups, small classes foster greater student engagement (Cotton, 2000) in addition to the opportunity for teacher connection within the classroom (Finn, Pannozzo, & Achilles, 2003).

In objective four, it was concluded that significant relationships existed between engagement and teacher immediacy behaviors. The unique contribution and significance indicate teacher immediacy has a place in explaining a part in the totality of undergraduate student course engagement. Due to the non-probabilistic nature of the sample, further conclusions from the inferential measures herein were not drawn. The influence of verbal and nonverbal teacher immediacy behaviors on student course engagement further substantiated evidence of the role teachers play involving students in learning (Frymier & Houser, 2000; Garrett, 2011; Velez & Cano, 2008). Additionally, it is important to note that teacher verbal immediacy explained the most variation in the participation/interaction engagement factor as that factor showed the lowest mean score among students. Again, supporting the influence of teacher behaviors on student perceptions and participation in the classroom (Gasiewski et al., 2012). It is therefore implied, the more immediate the teacher is, the more inviting and engaging the classroom environment she creates.

It can be concluded from these findings that class sizes of 29 students or less have a positive influence on student's total course engagement, participation/interaction engagement, and performance engagement. Although it may not be practical to reduce every class to 30 or less students, engagement benefit could be gained by grouping students to facilitate discussion in large lecture courses to facilitate the opportunity for teachers to approach students more directly and intimately (Weaver & Qi, 2005). This would theoretically increase student positive perceptions of teacher immediacy. The remaining covariates produced negligible influence on student course engagement. It may be necessary to recode and reevaluate the three variables individually to discern if any interaction exists. Also worth consideration is describing course engagement at each level of class time, course status, and student rank to provide further context to the role each variable plays in engagement.

Considered together, these findings also suggest that small class sizes and verbally immediate teachers work positively in combination to encourage students to interact with classmates and teachers, alike. While students may not exhibit the behaviors of participation regularly, class size and an immediate teacher improves the probability of these student behaviors. Being a more immediate teacher is not simply about making people feel good and making yourself

more popular, it is a genuine state and mentality. Teachers who demonstrate energy and concern for student learning through being inclusive, encouraging, and ultimately realistic with communicating expectations can positively influence student engagement in the classroom (Barkley, 2010). If we as college teachers expect attentiveness, care, and concern demonstrated from our students in the classroom and in their work, the same should be expected from us.

Future studies should explore the tipping point of influence class size has on student engagement to assist in course design decisions. Weaver and Qi (2005) purported class sizes of 30 or fewer produced more engaged students but, is there significant differences between 30 students and 50 students? This knowledge could help colleges better plan enrollments and scheduling. Furthermore, incorporating observations of student behaviors where the SCEQ is utilized could provide instructors with a better understanding of differences between what they observe and what students perceive. Observational instruments would identify and quantify student behaviors during a class session where the students would also complete the SCEQ. Thereby providing context to the question; are student behaviors indicative of their engagement? Alternatively, qualitative inquiry through interview or focus groups would allow students to describe in their own words what engagement looks like to them to contextually define engagement. Present use of scales to measure engagement and current definitions of engaged behaviors may be constricting a more holistic understanding of engagement. In combination with interviews, new instrumentation could be inductively created to access the dimensionality of engagement. Plausibly, much additional interference to student engagement exists within the classroom. Therefore, what is the role technology-use plays in student course engagement? Does being plugged-in alternatively create disconnect?

While not each element of the operational model for this study imparted substantial impact on student course engagement, this study assisted in the work toward predicting student engagement. Continued inquiry into the role of immediacy in engagement is warranted. Future studies could explore student-teacher relationships in more depth through incorporating indicators of relationship development with an assessment of teacher immediacy to predict student engagement. Additional questions worth pursuit are: Does teacher awareness of immediacy influence engagement? Does student engagement have a reciprocal effect on teacher immediacy? Across higher education the development of online courses exceedingly increases as institutions seek to make education more accessible. Although literature exists regarding engagement in online courses, how can a teacher transmit immediacy remotely? The transferability and impact of teacher immediacy via online courses to students should be studied to facilitate engaged online learning in both synchronous and asynchronous learning environments.

The study of engagement and its' influences holds significance in all areas of education. Especially as we consider how to better prepare teachers and make them more effective in the classroom. The process and preparation of student engagement is important in how we, as teachers, create a better learning environment in every classroom we enter.

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