

Bridging the power gap: the impact of pedagogical strategies and relationship-building on student success

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Abstract

Purpose – This study was designed to assess the efficacy of pedagogical and relationship-building strategies employed to foster student engagement and success. Also, it was meant to demonstrate the importance of faculty to engagement and success, and emphasize a faculty member’s role in lessening the power divide that can exist in classrooms.

Design/methodology/approach – First, archival survey data were explored that provide a baseline for student perceptions of the interactions with faculty that have been shown to impact student engagement. Second, an in-depth description of the course taught by this author is provided, along with the relationship-building and pedagogical strategies employed to promote student engagement and learning. Finally, a mixed-methods approach was utilized to capture whether improved engagement and learning occurred. Both qualitative data, in the form of student opinionnaires, and quantitative data gathered from the institution’s assessment instrument were reviewed.

Findings – A review of the qualitative survey data found that students believe faculty should be very intentional about building relationships with them. Student opinionnaires confirmed the efficacy of the relationship-building tactics employed by the instructor. Additionally, data analysis of the learning assessment tool yielded an 18% increase in performance, lending further support to the classroom strategies utilized during this time.

Originality/value – The results of this study add to the body of literature addressing the impact faculty have on student engagement. Additionally, these results can be used to help inform institutional strategies, such as faculty development seminars, to improve retention as a result of an engaged student body.

Keywords Learning, Pedagogy, Student engagement, Teacher–student relationships

Paper type Research paper

Literature review

Student engagement defined

Student engagement has received increased attention from researchers over the last 2 decades. With this increased attention, though, came the realization that student engagement is a conceptually hazy construct that is undeniably multidimensional (Wong and Liem, 2022). This was made evident in the seminal work by Fredricks *et al.* (2004), in which they characterize engagement as having three separate, but related facets. The first is behavioral, and “draws on the idea of participation; it includes involvement in academic and social or extracurricular activities and is considered crucial for achieving positive academic outcomes and preventing dropping out” (p. 60). The second facet, emotional engagement, “encompasses positive and negative reactions to teachers, classmates, academics, and school



and is presumed to create ties to an institution and influence willingness to do the work” (p. 60). Finally, cognitive engagement “draws on the idea of investment; it incorporates thoughtfulness and willingness to exert the effort necessary to comprehend complex ideas and master difficult skills” (p. 60).

The complexity of the construct has led to various definitions of the term student engagement. For example, [Kuh's \(2009\)](#) definition paints a two-sided picture. According to [Kuh \(2009\)](#), student engagement “represents the time and effort students devote to activities that are empirically linked to desired outcomes of college *and* what institutions do to induce students to participate in these activities” (p. 683). The key takeaway here is that both the student and the institution have a role to play in cultivating engagement, and it takes effort from both sides.

More recent authors, in an attempt to refine the definition of the construct, have developed the Dual Component Framework of Student Engagement ([Wong and Liem, 2022](#)). This framework splits student engagement into two constructs: learning engagement and school engagement. “Learning engagement corresponds to the students’ work role (i.e. studying or learning) and it represents students’ active interaction with learning activities. School engagement, on the other hand, corresponds to the students’ role as a member of the school, and it represents students’ state of connection with the school community that includes its people (e.g. teachers, peers) and activities (e.g. class or extracurricular)” (p. 118). In short, learning engagement relates to the students’ learning experience, whereas school engagement deals with social connectedness ([Wong and Liem, 2022](#)).

It is beyond the scope of this study to attempt to wrangle all three dimensions of student engagement posited by [Fredricks et al. \(2004\)](#). Rather, the focus will be on the latter halves of both [Kuh's \(2009\)](#) and [Wong and Liem's \(2022\)](#) conceptualizations of engagement. It is concerned with the efforts made by institutional parties, particularly faculty members, to bolster school engagement and increase the connectedness students feel toward those faculty members.

Why engagement matters

Regardless of its definition, the importance of engagement cannot be denied. In fact, recent researchers have gone as far as to say that enhancing student engagement is the “Holy Grail” of learning ([Asif et al., 2021](#); [Heilporn et al., 2021](#)). Although this claim may seem hyperbolic at face value, prior research has evidenced strong relationships between student engagement and positive student/academic outcomes. For example, in a 2018 study, [Nesbitt, Marmet, Balduzzi and Fenner](#) found increased behavioral engagement (measured by in-class attendance) to be related to higher levels of academic success in a blended MBA environment. Additionally, [Kuh et al. \(2008\)](#) indicate that student engagement in “educationally purposeful activities” (p. 555) positively impacted not only first-year student grades, but also the retention rates of these students between their first and second year of college.

Although students may be the obvious beneficiaries of engagement ([Trowler, 2010](#)), the institutions they attend can also reap the benefits. [Markwell \(2007\)](#) argues that “how engaged students are and feel themselves to be during their student years will have a great bearing on how connected and supportive towards the institution they are likely to be in later years” (p. 15, as cited in [Trowler, 2010](#)). If institutions want their students to provide monetary donations once they have graduated, these institutions should spend time to ensure that these students are engaged while they are enrolled. More recent research has also shown engagement to be positively related to loyalty intentions and, in turn, loyal behaviors toward universities. An example of such behavior is positive word-of-mouth, which is paramount to the growth and endurance of higher education institutions ([Snijders](#)

et al., 2020). Taken together, this research indicates that “institutional benefit from student engagement can be both reputational and financial” (Trowler, 2010, p. 25).

Just as Kuh’s (2009) and Wong and Liem’s (2022) conceptualizations of engagement identify both a student and an institutional side, it is evident that the benefits of fostering this engagement can be seen at the student and the institutional level. However, those at the institutional level, particularly faculty members, should be aware of the invaluable role they play in making this happen.

Why faculty matter to engagement

To expect student engagement (and the subsequent benefits) to flourish on its own is “magical thinking” (Chang *et al.*, 2005, pp. 10–11). Also, it is important to understand that “engagement is not an attribute of the student, but rather a state of being that is highly influenced by contextual factors” (Sinclair *et al.*, 2003, p. 31). Interestingly, these contextual factors that have the potential to influence student engagement present an issue of scale. At the macro level, formal institutional programs such as first-year mentoring, those targeting students from disadvantaged backgrounds, and others focused on enhancing students’ study skills and preparedness have been investigated (Farr-Wharton *et al.*, 2018). Robust findings have also surfaced from investigations centered on the micro, or classroom level. It is at this level where faculty play such a large part in student learning and engagement and may even be the most important piece to that end (Umbach and Wawrzynski, 2005).

Although this issue of scale appears to present a dichotomy between the institutional and classroom levels of intervention, prior researchers have also stressed the importance of active, well-planned collaboration between faculty members and those serving in more administrative functions. For instance, Manning *et al.* (2014) posit the Academic–Student Affairs Collaboration model. “In this model, student affairs professionals and faculty members appreciate each other’s respective strengths and join together to facilitate the educational mission” (p. 181). The authors discuss the idea of seamless learning, in which learning and the creation of effective learning environments is a shared responsibility. Examples of this collaboration include formal administrative restructuring, where student affairs professionals report directly to the provost of the institution. In addition, “less formal” bridging between these two realms can be seen with faculty aiding members of student life in the creation of themed floors in dormitories to help reinforce learning concepts (Manning *et al.*, 2014).

This author agrees that a “both/and” rather than an “either/or” perspective should be taken when considering whether student engagement and learning responsibilities fall to the faculty or to the administration. The following focus on the importance of faculty members is not to disparage the administrative role. Rather, the goal is to simply emphasize what the faculty side of this coin looks like, and convey its criticality.

The transactional view of engagement lends support to the pivotal role faculty play in building student engagement. Viewing engagement through this lens brings to light the importance of pedagogical practices and relationship-building between students and teachers. This transactional view has its roots in collaborative learning, which is based on three assumptions. First, there is a positive relationship between learning and sharing. Knowledge is created by sharing, and thus, with increased sharing comes increased learning. Second, participation is an essential component of student learning. And third, learners will be more apt to participate if the ideal conditions are provided to do so (Asif *et al.*, 2021).

In the classroom, it is the instructor who is directly responsible for creating the “ideal conditions” noted above, and providing learners with opportunities to share and participate. In fact, “[o]n campuses where faculty report frequent use of active and collaborative learning techniques, students are more likely to engage in active and collaborative learning activities”

(Umbach and Wawrzynski, 2005, p. 174). However, this active collaboration requires a departure from the educational ideology of Traditionalism, in which teaching is about transmitting information to students, who absorb the information by attending lectures and complying with behavioral norms (Trowler, 2010). Instead, researchers from as far back as the mid-1990s have called for a paradigm shift in education where the idea of *providing instruction* is replaced with *producing student learning* (Barr and Tagg, 1995). This call is echoed in current research that suggests a departure from the assumption that the purpose of teaching is “to transfer knowledge from the expert to the (passive) learner” (Asif *et al.*, 2021, p. 5).

Bridging the “power gap”

The Traditionalist view described above suggests that an inherent “power gap” exists between faculty members and students. The analogy that comes to mind is of the student as an empty vesicle that simply accepts the knowledge being poured into it by the expert in the room since “archaic teaching styles dictated student engagement reflected a passive learning from a didactic teaching structure” (Chemosit and Rugutt, 2020, p. 77). If the goal is to depart from this view of teaching (i.e. bridge this “power gap”), the question becomes, how can this be accomplished? Past research into the relationships that faculty create with their students, along with the impact of the active and collaborative practices mentioned above, helps to answer this very daunting question as it provides practical methodologies along with the theoretical underpinnings for employing them.

Relationship-building. The importance of relationship-building between faculty and students has its roots in psychology. The self-system model of motivational development (Connell, 1990; Connell and Wellborn, 1991) asserts that individuals have three fundamental psychological needs for relatedness, autonomy and competence. “The degree to which students perceive that the classroom context meets those needs determines how engaged or disaffected they will be in the school” (Fredricks *et al.*, 2004).

Focusing on the need for relatedness, it is important to note that this need is more likely to be satisfied in an environment where teachers and peers seem caring and supportive (Fredricks and McColskey, 2012). Prior research has indicated that it may be the teachers, more so than the peers, that matter most (Nguyen *et al.*, 2018). Building from this, a healthy body of literature exists on the importance of teacher–student relationships (TSRs) in fostering student engagement.

For example, borrowing from the leadership literature, Farr-Wharton *et al.* (2018) reference student–LMX (leader–member exchange) and describe it as “the relationship formed between students and their teaching staff . . . through learning interactions and activities” (p. 168). The authors are quick to point out the positive impact that high-quality exchanges can have on academic outcomes such as student success, engagement and retention. Taking this a step further, and again borrowing from the organizational leadership literature, this author believes that faculty members should practice leadership making. This is an approach to leadership where the leader (in this case, the faculty member) should attempt to develop high-quality relationships with all of his or her followers (in this case, the students) (Northouse, 2019). This ensures that all members involved in these dyadic relationships have the ability to become members of the in-group, who are characterized by receiving more direct attention and assistance from the leader (Farr-Wharton *et al.*, 2018). One caveat to this in academia is the temporal nature of student–LMX. Instructors have a limited time to build these relationships as they typically interact with students on a limited basis during the week, over a confined semester schedule (Farr-Wharton *et al.*, 2018). This speaks to the sense of urgency that faculty members should have when attempting to bridge the “power gap.”

Speaking directly to the importance of respect and care, [Wilson et al. \(2020\)](#) found that faculty support positively predicted student engagement, and did so more strongly than faculty interaction, suggesting that “how faculty express care, concern and respect for students, interact with students and are available to help can impact students’ emotions and motivations, which has implications for greater achievement not only in the course in which this support and interaction occur but also in future courses” (p. 98).

Adding longitudinal support for the importance of high-quality TSRs, [Quin \(2017\)](#), in an expansive review of the literature, found that TSRs positively impacted engagement even after other contextual variables were controlled. These included criteria such as teacher reward policy, country, school type, socioeconomic status of the school, and availability of health services. Speaking to the temporal nature of relationship-building described above, [Quin \(2017\)](#) also emphasizes that “the promotion of engagement should be a goal for all students, rather than waiting to intervene or respond to indicators of low engagement” (p. 348). Given the limited exposure that faculty can have to students, it is important that endeavors in building relationships be proactive, rather than reactive.

Finally, the importance of TSRs shines through with their inclusion in the “instructional core” ([City et al., 2009](#), as cited in [Corso et al., 2013](#)). This instructional core includes three elements. The first is the student within him- or herself and includes their personality traits. The second is students’ interaction with others. This is the TSR-related element, and includes whether the student feels supported, respected and inspired by the teacher. The final element is the students’ interaction with academic content, which deals with the value students place on each of their classes ([Corso et al., 2013](#)).

Taken together, prior research on the importance of building high-quality relationships with students indicates that “learning and well-being are fundamentally intertwined, with many learners needing socio-emotional support before they were in a position to engage in formal learning” ([Banks and Smyth, 2021](#), pp. 11–12). This line of thinking answers [Mann’s \(2001\)](#) call for solidarity, in which estrangement is dissolved through empathy, and the separation between students and lecturers is removed. Interestingly, [Mann \(2001\)](#) also emphasizes allowing students to exercise power over their own learning and development. This is in line with students’ interaction with academic content, the third pillar of the “instructional core” mentioned above and is addressed in the following section.

Active and collaborative learning practices. As noted, the transactional view of engagement emphasizes pedagogical practices in addition to relationship-building. This, once again, places the faculty member in a position of importance when it comes to influencing engagement and student success. Since student engagement, and subsequent levels of success, are considered malleable through pedagogy ([Heilporn et al., 2021](#)), it is important to understand that active and collaborative learning techniques represent a drastic departure from the teacher-oriented model of education ([Bradford et al., 2016](#)). Rather, a student-centered learning (SCL) approach is employed where students play a much more active role in their own learning ([Judi and Sahari, 2013](#)). This student-centered approach has its roots in constructivist and collaborative learning. Here, knowledge is internalized through active processes ([Asif et al., 2021](#)) and “learning should be viewed as a process of peer interaction among learners that is mediated, structured, and organized by the teacher” ([Ertmer and Newby, 2013](#), as cited in [Asif et al., 2021](#), p. 6).

Prior research provides evidence that employing such pedagogical techniques proves beneficial if improved engagement and learning are the goals. [Umbach and Wawrzynski \(2005\)](#) emphasize the role faculty play in creating the educational context in which students are encouraged to participate in active and collaborative techniques. The authors also provide empirical evidence on how instructional methods such as these can influence student gains in learning.

Similarly, [Bray et al. \(2021\)](#), in a study of Irish students in an online environment, found that pedagogical practices matter to student engagement. In particular, students who reported low levels of exposure to practices that “supported development of key twenty-first century skills such as collaboration, project work, creativity, critical thinking and self-direction . . . were more likely to report low active engagement with their education” (p. 437). The authors conclude that student-centered pedagogies were impactful at curbing disengagement during a time of school closures during the COVID-19 pandemic.

A specific example of an active and collaborative learning practice that falls squarely into this student-centered approach is team-based learning. Team-based learning is more affectionately referred to as “group work.” Despite the common negative perceptions of team-based learning from students, such as unwillingness to work with others, difficulty in scheduling meeting times and feeling that only one person is doing the work, [Bradford et al. \(2016\)](#) note that there is evidence that many students do end up enjoying group work and team-based learning projects. These same authors also assert that one of the major benefits of team-based learning is that it can be used in conjunction with other student-centered learning techniques.

One other such technique is employing the flipped classroom model of teaching. This model calls for using the classroom for more direct interaction rather than the more traditional lecture style. The interaction in the classroom is based on work that students have been asked to do outside of the classroom, before coming to class. Essentially, this method flips the lecture from within the classroom to outside the classroom, where students are expected to engage with the material in more meaningful ways ([Bradford et al., 2016](#)). Similar to the use of team-based learning, the goal of the flipped classroom technique is once again to depart from the more traditional lecture style of teaching, which, in this author’s opinion, reinforces the very power gap that needs to be bridged.

Aim of current study

The current study examines the efficacy of employing this transactional model of engagement in promoting student engagement, learning and success. Specifically, this researcher is interested in the impact of building high-quality relationships with students, coupled with the use of the active and collaborative pedagogical strategies outlined above (team-based learning and flipped classroom). What follows is a description of the study design and methodology, and after that, results of the data analysis will be provided along with the potential implications of those results. In short, this study aims to answer the following research question:

Does building high-quality relationships with students and employing student-centered pedagogical practices (i.e. bridging the “power gap”) promote student engagement and learning?

Method

Overview

What follows is a detailed description of the methodology of the current study. First, archival data sources will be explored that provide institutional-level data on student perceptions. These data provide information on whether or not students at this author’s institution are indeed calling for the relationship-building and high-quality interactions with faculty that have been shown to impact student engagement positively. Second, an in-depth description of the course taught by this author will be provided, along with the relationship-building and active/collaborative pedagogical strategies employed in the course to promote student engagement. Finally, the sources of the qualitative and quantitative data meant to capture whether improved engagement and learning have occurred will be reviewed.

Institutional-level student perceptions

Institutional-level data on students' perceptions of their university were captured by three separate survey instruments. It should be noted here that the institution in question is a small, private, liberal arts university located in the northeast region of the United States. These surveys include the National Survey of Student Engagement (NSSE), the National Assessment of Collegiate Campus Climate (NACCC), and the Ruffalo-Noel-Levitz Student Satisfaction Inventory (SSI). Also of note here is that these three instruments were administered during different years and different semesters, so the body of students responding to these surveys may not be exactly the same. However, the intent of employing these sources of data is to gain the more institutional-level perceptions being described here. Overall, what are the students saying about the various items being asked in these surveys? Below is a breakdown of each survey instrument.

NSSE. The National Survey of Student Engagement "assesses the extent to which students engage in educational practices associated with high levels of learning and development. The questionnaire collects information across five categories: (1) participation in dozens of educationally purposeful activities, (2) institutional requirements and the challenging nature of coursework, (3) perceptions of the college environment, (4) estimates of educational and personal growth since starting college, and (5) background and demographic information" (NSSE, 2021, p. 1). The survey was administered via an email invitation to first- and final-year traditional undergraduate students enrolled on the main campus during the Spring semester of 2018 to assess their levels of engagement with the institution. Since the survey is designed to measure the traditional college experience, it would not be appropriate for populations other than traditional undergraduates. A total of 1,360 students (563 first-year and 797 final-year) were invited to complete the survey. Of these, 520 students completed the survey, yielding a response rate of 38%.

NACCC. Developed by the University of Southern California Race and Equity Center, the National Assessment of Collegiate Campus Climate is a "quantitative survey on campus racial climate. The survey collects data about undergraduate students' appraisals of institutional commitment to racial equity and diversity, the extent to which they interact meaningfully with diverse others, where and what they learn about race and their feelings of readiness for citizenship in a racially diverse democracy, and other important topics" (USC Race and Equity Center, 2022, p. 6). Content areas addressed in the survey include feelings of belonging and affirmation, cross-racial engagement and perceptions of institutional commitment. This survey was launched on March 25, 2019. The university president sent the initial invitation via email to a total of 2,306 on-ground traditional undergraduate students. Four additional reminders were sent from late March through mid-April, with data collection ending on April 12, 2019. Each survey respondent was entered into a drawing to receive a \$100 Visa gift card. Of those invited, 715 students (31%) responded to the survey. Sixty-four percent of those who responded identified as women, and 34% identified as men. The majority of respondents (75%) identified as White or Caucasian. Fourteen percent indicated they were Black or African American, and 11% identified as Hispanic or Latino/a/x or Chicano/a/x. Asian or Asian Americans comprised 5% of respondents, while all other racial groups accounted for 1% or less than 1% of respondents.

SSI. The Ruffalo-Noel-Levitz Student Satisfaction Inventory measures student satisfaction and priorities. It provides insight into how satisfied students are with what their institution offers and also what is important to them. The four-year college and university version of the survey, which is designed for the traditional, on-ground undergraduate, was administered in November 2021. A link to access the survey was placed in the students' learning management system environment that accompanies each on-ground course. The rationale for this form of administration was that students would likely see this as an assignment to complete in this environment, and would therefore be less likely

to overlook it, as they do email. Participants included traditional undergraduate students (i.e. those taking on-ground classes at the institution). A total of 514 undergraduates completed the survey, equating to a 26% response rate.

Related course and pedagogical strategies

To provide context, before a description is given of the pedagogical strategies employed by this author to attempt to bolster student engagement and learning, a description of the course in which these strategies are used will be presented. Although the content of this course and the student population enrolled in it are quite specific, this author believes that the strategies described below can be tailored to meet the needs of various subject areas and students. These strategies are split into two categories. The first is relationship building, and the second is active/collaborative learning.

Related course. The course in question is a 300-level undergraduate business course in technology and information systems management. It is required for all business majors. Students attend on-ground classes twice weekly over a 16-week semester. The class is primarily comprised of juniors and seniors who are exposed to the fundamentals of managing information systems, including hardware/software considerations, big data, cloud computing, e-commerce, artificial intelligence, cybersecurity and others. The main goal of the course is for students to understand how information systems can be used as a tool to help facilitate making better business decisions. As such, it is taught less like a computer science course and more like a true business course. As part of the class, students are required to complete a team-based final project, where teams of four to five students submit a final video deliverable that relates course material to a real-world case example (see below for details on final project content and deliverables).

Pedagogical strategies: Relationship-building. As indicated above in the literature review, relationship-building is critically important for fostering student engagement. This author employs several strategies to that end, which are listed and described below. It should be noted here that although these strategies are not empirically validated, they are conducted in line with the tenants of student-LMX described by [Farr-Wharton et al. \(2018\)](#) and the idea of leadership making presented by [Northouse \(2019\)](#).

- (1) Learning students' names early – This begins on the first day of classes. It is an institutional requirement to take attendance during every class, so this is used as an opportunity to learn everyone's name. All students are told their names will be learned by the end of Week 2. This does two things. First, it shows the students that the instructor cares enough about them to want to know their names. Second, the instructor can then greet each student by name as they enter the classroom. In addition to addressing the students by name, this author attempts to ask how each student is doing as they enter.
- (2) Incorporate instructor home life into course materials – Similar to learning the students' names, this also begins at the start of the semester. Each class session has a slide presentation to accompany it. Toward the beginning of each presentation, this author places a picture of his son for students to view, and explains the context surrounding it. Occasionally, home videos are woven into the presentations as well. This allows students to glimpse the "outside-of-class life" of an instructor and reminds them that faculty members, too, are real people.
- (3) More than class-based conversation – This author feels it is imperative to engage students in conversations that don't at all relate to course content. This does not need to be (and likely should not be) an overcomplicated process. For example, by getting to know students, an instructor obtains knowledge about the activities they partake

in outside of class. Whether it be athletics, home life or other extracurricular activities, engaging students in these conversations before, during and after class shows them that they are more than just a student to the instructor.

- (4) Mental health days – When strategically held, such as the week after midterms, providing students with time during scheduled classes to de-stress seems to help create an environment characterized by positivity. During this time, no class material is discussed, food and drink are usually provided, and students have the option to attend or not. It is up to the instructor to create an engaging environment during these times, and partaking in conversations with students like those described in Point #3 above is a sound strategy for doing so. Anecdotally, another element that promotes engagement in this environment is for the instructor to remove him- or herself from the front of the classroom and sit among the students.
- (5) The power of music – The first assignment in this course asks students to submit a document containing a list of ten of their favorite songs and who the artists are. These lists are then compiled to create a Spotify playlist that is played on a shuffle as the students enter the classroom. This immerses the students in an environment they helped create and also prevents them from being subjected to the musical tastes of the instructor alone.

Pedagogical strategies: Active/collaborative learning. Team-based learning and flipped classroom are the two overarching active/collaborative pedagogical strategies employed by this author during the information systems management course. Team-based learning is exhibited not only through the delivery of a final project (mentioned above) but also during the semester when students are asked to work in their teams on various activities. Flipped classroom, often referred to by this author as letting students “take the stage,” allows for a break from traditional lecturing and places some of the onus on students to deliver course content creatively. Below is a detailed list of examples of active/collaborative learning strategies being utilized, separated categorically into team-based learning and flipped classroom. It should be noted that this list is not exhaustive, as providing such a list is beyond the scope of this research endeavor. Rather, this list is meant to convey the spirit of the active/collaborative techniques employed by this author.

- (1) Team-based learning

- As mentioned, the final project in the information systems course is a team-based project in which students create a video deliverable relating course content to a real-world case example. Rather than simply assigning this as a single deliverable due at the end of the semester, the final project is “chunked out,” with smaller deliverables due throughout the 16 weeks. For example, at the end of Week 6, student teams must read the case article and submit a two-to three-page summary. Additionally, by the end of Week 10, students must identify five course topics within the article, describe each topic using in-class subject matter, and relate that subject matter to how it is employed in a real-world scenario. In total, there are four submissions, including the final video project. This not only forces students to engage with the article content prior to the final deadline but also facilitates teamwork and team-building over the course of a full semester.

- (2) Flipped classroom

- One technique employed to encourage students to actively engage in course material outside of class is to assign students a section of the chapter during one class session with the expectation that they will present it during the next session.

Too often, these presentations take the form of students simply reading from hastily prepared slides. To prevent this, the use of slides is prohibited, and students need to invent creative ways to present the material. One of the best examples of this to date is a team of students who created a storybook dedicated to the topic of buying versus building software. The team formed a circle at the front of the classroom, with one student acting as the teacher while the rest asked carefully scripted questions to relay course content to the remainder of the class.

- Allowing the students to “take the stage” can also be accomplished with in-class activities that provide a break from traditional lecturing from the instructor. Interestingly, an overlap exists here between flipped classroom and team-based learning, as these activities can be conducted at both the individual and team levels. For example, at the individual level, an activity that stresses the importance of having clear policies and procedures is conducted. During this activity, students build paper airplanes. As they build them, they must write down the list of procedures they used to accomplish the task. Once all the airplanes are constructed, one student volunteer is asked to instruct the faculty member in building a paper airplane simply by conveying the list of procedures verbally. Confusion inevitably surfaces as the faculty member struggles to follow the verbal instructions, and the students are all left with the impression of just how important it is for such procedures to be clear. At the team level, during the week when information systems security is discussed, students play an online game where they take on the role of Chief Technology Officer for a fictional firm compromised by a cyberattack. As the scenario unfurls, teams are required to make decisions with limited financial resources in a “choose your own adventure” scenario whose conclusion is determined by the decisions they make. In the end, the game’s creator offers an explanation for why things turned out the way they did. This author then asks pointed reflective questions to tie the game’s content solidly back to course materials.

Learning outcomes and engagement

For the purposes of this study, learning outcomes and engagement are measured using quantitative and qualitative methods, respectively. A description of both instruments can be found below.

Learning outcomes. Learning outcomes for the course were assessed using the Peregrine Business Administration Undergraduate Academic Degree Level Assessment. “The exams include 10 questions for each exam topic. Each exam is unique as questions are selected at random from the test bank of over 200 questions per topic. Institutions select the topics to be included in the exam to align with the learning outcomes and program curriculum” (Peregrine Global Services, 2020, p. 2). The exam includes such topics as Management, Marketing, Business Leadership, and, of particular interest to this research endeavor, Information Management Systems. “Test bank questions are written and proofed by terminally degreed, subject matter experts from accredited institutions who have teaching experience with the specific discipline” (Peregrine Global Services, 2020, p. 4). The exam is continually assessed to ensure high levels of validity and reliability. The methodology employed for doing so can be found in the Exam Summary provided by Peregrine Global Services (2020). The exam is given to students during their culminating experience at the university, which is a senior capstone project.

The Information Management Systems subject of the exam closely aligns with the subject areas taught in the specific course led by this author, which is described in detail above. Topics within this subject of the exam include Internal and External Networks (questions

related to e-commerce, internal versus external networks and uses of external networks), Software and Hardware (questions related to hardware, firewalls, databases and networks), Artificial Intelligence (questions related to AI), among others. An example item contained within this subset of questions is “_____ is a collection of facts organized so that they have additional value beyond the value of the facts themselves.” Test questions may be questions or incomplete statements, and all multiple-choice format questions include four possible responses and only one correct response (Peregrine Global Services, 2020).

Engagement. Student engagement, as it relates to relationship building, was assessed by reviewing students’ qualitative responses to questions related to the course taught by this author. The opportunity to respond to these questions comes at the end of each semester the course is taught, and is a part of the Student Opinionnaire on Teaching (SOOT) survey that is administered via email invitation by the institution. A pertinent example of a qualitative question asked at the end of the survey is, “Evaluate the instructor’s interaction with students (For example: Did the instructor communicate clearly and effectively? Were student questions welcomed and respected?).” Responses to this question, and others, were analyzed from the Fall 2019 semester to the Spring 2022 semester. During the course of this time, 190 students were invited to complete the survey. Of these, 29 responded, yielding a response rate of 15%. Although not ideal, this response rate is not much lower than the overall institutional average for these questionnaires across the same timeframe, which was 22%.

Results

Overview

This section will start with a report on the quantitative and qualitative analysis of the data gathered from the various instruments mentioned above. This will provide context and justification for investigating the efficacy of the pedagogical and relationship-building strategies outlined in the methodology section. From here, qualitative results from this instructor’s Student Opinionnaire on Teaching show whether relationship-building efforts were, in fact, successful. Finally, results of the Peregrine Academic Assessment will be presented to show whether or not desirable learning outcomes were achieved in the information systems management course.

Results of institutional surveys

Content analysis of the data gathered from the National Assessment of Collegiate Campus Climate survey yielded two distinct, yet related findings. First, there was a call for bridging the power gap that exists between faculty and students within classrooms, with faculty needing to be more mindful of students’ individual experiences and backgrounds, and engage with them in conversations outside of the academic sphere (Faculty and Student Reflections, 2020). Also, students indicated that faculty should be very intentional about building relationships with them. Strategies for doing so included learning students’ names, and asking about their interests, hobbies and concerns. Something as simple as saying “hello” to students when they are seen on campus (even after the class the student was enrolled in is over) was also mentioned (Faculty and Student Reflections, 2020).

Although the need for bridging the power gap and building higher-quality relationships with students was called for in the NACCC, a review of the data from the National Survey of Student Engagement yielded opportunities for improvement. For example, the Items Comparison Report within the data provides the five questions on which students scored the highest, and the five questions on which students scored the lowest. “Quality of interactions with faculty” was among the lowest performing questions relative to other four-year, private, not-for-profit institutions. Assessment of the data here included the percentage of students

who rated the question at least a 6 on a 7-point scale (from 1 = “Poor” to 7 = “Excellent”). Overall, first-year students rated this question eight percentage points lower at this institution than students at the other schools in the comparison group. This percentage point difference was calculated by subtracting the comparison group percentage from the institution percentage. Although this question was not among the lowest performers in responses from seniors, it did not show up among the highest-performing questions in this group either. Additionally, a theme that arose in a review of the Engagement Indicators (EI) Report was that seniors tended to respond more poorly than first-year students. This was true for both the Collaborative Learning and the Student–Faculty Interaction engagement indicators.

Finally, content analysis of the Ruffalo-Noel-Levitz Student Satisfaction Inventory (SSI) data produced further evidence of the importance of faculty in student engagement. Within the 205 qualitative comments provided by students at the end of the survey, 16% (33) dealt with the institution’s faculty members specifically. An example comment here included, “I wish that faculty would try to directly help me more when I have questions instead of transferring me to someone else and seeing if I can figure it out on my own.” Another student said, “I believe the understanding of professors regarding students’ mental health and triggers in lessons could be vastly improved.” A third student indicated that “. . . professors should care because we are overworking ourselves and trying our best in any situation.”

The SSI also asks students to rate the importance of, and their satisfaction with, certain items. The importance scale ranges from 1 = “not important at all” to 7 = “very important.” The corresponding satisfaction scale ranges from 1 = “not satisfied at all” to 7 = “very satisfied.” One such item is, “Faculty care about me as an individual.” Here, 86% of responding students rated this as important to them, but 56% indicated satisfaction with this item. The percentages for both importance and satisfaction were calculated using the number of students who responded with at least a 5 (“*somewhat important*” or “*somewhat satisfied*”) on either scale.

Results of Student opinionnaire on teaching

Student responses to this author’s Student Opinionnaire on Teaching survey provided an opportunity to evaluate the efficacy of the relationship-building strategies discussed in the methodology section. Of particular interest were the open-ended responses to the questions relating to the instructor’s interaction with students. A summary of these responses, broken out by semester from 2019 to 2022, can be seen below.

Fall 2019. Students enrolled in the course during this semester indicated that the instructor has a great relationship with students, and builds these relationships by getting to know them on a personal level.

Spring 2020. During the Spring 2020 semester, students indicated positive feelings about the instructor’s availability outside of class and his willingness to have open dialogue with them. They also felt that the instructor saw the students as more than just students and connected with them on a human level.

Fall 2020. Relevant responses during this semester also centered around the instructor’s friendliness and the care he takes to ensure clear and open communication. It was also indicated that the instructor welcomed questions and had a high propensity for helping students in need.

Spring 2021. Students indicated that the instructor took a proactive approach to ensure that all students in the class were engaged.

Fall 2021. Here, responses generally referenced high-quality interactions between the instructor and the students.

Spring 2022. Comments from the Spring 2022 semester revolved around effective communication, be it face-to-face or through email. Similar to prior semesters, comments hinted at the instructor’s respect for students and openness to questions/concerns.

Results of Peregrine academic assessment

As part of its academic assessment efforts, the institution in question partners with Peregrine Global Services to evaluate learning outcomes. Although learner-level data is available in the reporting, it is beyond the scope of this study to report on such granular data. Rather, an aggregated longitudinal report was evaluated, which allowed for two things. First, improvement (or lack thereof) can be assessed between the inbound and outbound exams during a given exam period. Also, a year-over-year comparison can be made of the results of the outbound exam itself. Data from this outbound exam were initially gathered during the year before this author became the primary instructor of the information systems management course the year before the pedagogical strategies of interest were implemented). This view of the data provides insight into the initial success of these strategies, as well as their long-term efficacy.

During each examination period, when both an inbound and outbound exam were given (in August and May, respectively), improvement was seen in outbound exam scores. On average, students improved their percent scores on the Information Management Systems topic. Student percent scores are calculated by dividing the number of questions the students answered correctly by the total number of questions they received (10) relating to the topic area. A full breakdown of the year-by-year improvements between the inbound and outbound exams can be seen below in Figure 1 (note that there is no inbound data available for 2017–2018).

Compared to outbound exam scores from the year prior, the outbound exam scores during the first year the pedagogical strategies of interest were implemented (2019) saw a jump of 2.53 percentage points. From 2019 to 2021, outbound exam scores rose over eight percentage points, equating to an 18% increase in performance in the Information Management Systems topic. A full breakdown of outbound exam score performance from 2018 to 2021 can be seen in Figure 2.

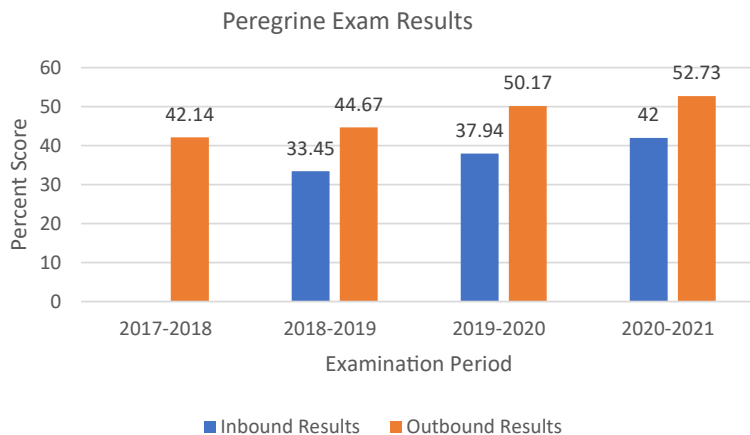
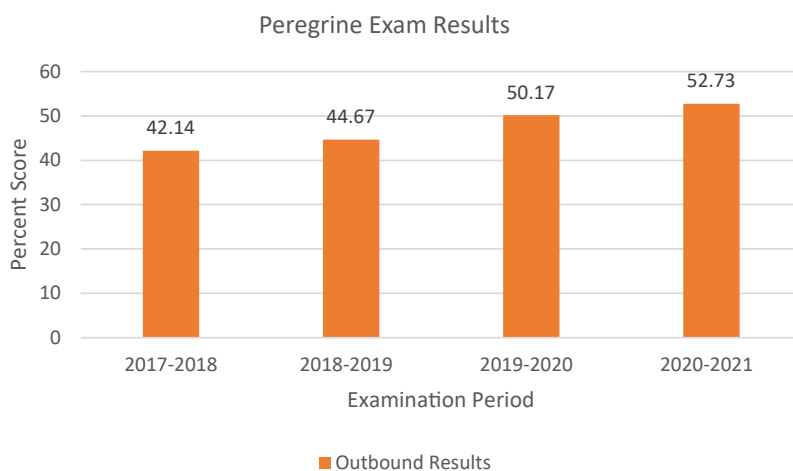


Figure 1.
Comparison of inbound vs outbound scores on the information management systems topic

Note(s): Figure courtesy of Peregrine Academic Services Longitudinal Analysis Report (2022)



Note(s): Figure courtesy of Peregrine Academic Services Longitudinal Analysis Report (2022)

Figure 2.
Comparison of
Outbound Exam
Scores on Information
Management
Systems Topic

Discussion

Interpretation of results

The convergent results (Creswell, 2014) of both the quantitative and qualitative data sources reaffirmed the anticipated nature of the student engagement process presented in this research study. First, the importance of faculty in this equation was made evident in the students' "call to action" survey comments. Here, students were calling for faculty to engage in behaviors that would subsequently promote student engagement. This is in line with Kuh's (2009) definition of student engagement, which espouses that the institution has a role to play in fostering behaviors on the part of students that lead to desirable educational outcomes. Additionally, this also lends support to prior research (Umbach and Wawrzynski, 2005) that shows more micro, classroom-level interventions should be focused on when attempting to develop an engaged student body. This, coupled with the results of the NSSE and SSI surveys that indicated the institution had room for improvement in this arena (which most institutions likely do), provided justification for investigating the efficacy of the pedagogical/relationship-building strategies employed in this study.

Following from this, it was evident in the instructor's Student Opinionnaire on Teaching results that the students enrolled in the information systems management course truly appreciated the relationship-building efforts meant to strengthen faculty–student interactions. Positive comments regarding care and concern for students as individuals denote that high-quality relationships were indeed developed, along with a culture of trust. Since efforts to promote this kind of culture/learning environment were initiated at the very start of each semester, this lends support to Quin (2017) call for proactive interventions to promote engagement rather than reactive measures to remedy low engagement. It is important to note here that the timeframe during which this study's data were collected was at the height of the COVID-19 pandemic. This likely augmented students' desire for this relationship-building, trust and understanding, and could have also enhanced their reaction to it. This author anticipates, though, that similar results would have been yielded under more "normal" circumstances as well.

Finally, the results of the Peregrine Academic Assessment showed support for the combination of the relationship-building and pedagogical strategies practiced during the

semesters in which the data for this research endeavor were collected. The longitudinal examination yielded consistent improvement between not only the inbound and outbound examination scores but also year-over-year improvement in the outbound exam scores themselves. These results lend support to prior researchers' claims that student engagement is the "Holy Grail" of learning (Asif *et al.*, 2021; Heilporn *et al.*, 2021), as the connection between this construct and positive academic outcomes is, yet again, reinforced. This also potentially speaks to continuous improvement efforts on the instructor's part to refine knowledge delivery and collaborative learning techniques. Given that 2019 was the first year the instructor taught this particular course, these kinds of improvements might be expected as anticipated performance improvements in teaching were realized.

Implications

The ultimate goal of this research endeavor was not only to show that bridging the "power gap" between faculty and students can yield desired educational outcomes, but also to provide a recipe for how that gap can be bridged. It seems an effective strategy is to combine active/collaborative learning techniques and efforts to build high-quality relationships with students. Within this study's sample of students, doing so yielded noticeable jumps in performance. Aside from this, the results of this study could have more far-reaching institutional implications. For example, in terms of resource allocation, when deciding where to dedicate finite resources toward improvements in student engagement, colleges and universities need to ensure that faculty-centered interventions are not overlooked. Faculty development programs that instill the principles of active/collaborative learning and relationship-building would be a prudent investment, as these classroom-level interventions seem to have a positive impact on students, both academically and personally. It should be noted here that this author is not downplaying the importance of higher-level, institutional strategies (e.g. student orientations, mentoring programs, etc.). Instead, it should be stressed that the existence of these kinds of programs should not come at the exclusion of others.

Additionally, the results of this study may be relevant not only to the issue of student engagement, but to student retention as well. Student engagement and retention are inevitably linked (Kuh *et al.*, 2008), so improvements in the former will likely lead to improvements in the latter. With this in mind, timing might be an issue here. Employing these strategies during first-year seminars and introductory-level classes may be paramount. Exposing students to this at the onset of their education should set a positive tone, helping them to persist through a four-year degree. It may also provide them with a welcomed change from the knowledge delivery they were exposed to at the secondary level. That said, this author also believes that strategies to promote student engagement should be practiced at all stages of a student's collegiate career, as data collected for this study did indicate a drop in engagement from the first to the final year.

Limitations and directions for future research

As with any research endeavor, this study has its limitations. First, although some data were longitudinal, the temporary nature of the academic semester prevented data from being collected from the same sample of students. Consequently, the results of assessments like the Peregrine tool employed in this study could have been from the individual differences found in the different semester cohorts. Additionally, in an ideal setting, a control group could have been utilized in which students were not presented with active/collaborative teaching strategies and relationship-building techniques to assess whether a difference between the two groups was seen. Scheduling logistics, along with ethical considerations that the current author was not willing to address, precluded this from occurring.

Related to the above, it should be kept in mind that this data came only from students enrolled at one institution. As such, the generalizability of the results may be called into question. From the current results, it is impossible to know whether these techniques could be effectively applied at another institution where student demographics, ability levels, etc., may be entirely different.

Third, although the techniques employed in this study yielded positive results regarding student engagement and learning, this author understands they are not the only pieces necessary for building the engagement puzzle. Student engagement is a very complex, multi-faceted construct, so to think that the strategies discussed in the present study will completely solve a problem faced by so many institutions would be naïve. Future research needs to take these results into account, coupled with other factors shown to impact engagement and learning, if a complete picture of student engagement is to be realized.

With these limitations in mind, an avenue for future research could be to develop a collaborative partnership with other institutions to test the efficacy of these strategies across different student samples. Although this would present distinct challenges (e.g. ensuring different faculty members are employing the pedagogical and relationship-building strategies in a “similar enough” way to allow for comparison), if done correctly, the ability to generalize the findings from this study would certainly add credence to them.

Additionally, it would be of value to assess the impact of these strategies in other courses taught by the current instructor. As mentioned, the course in question is a 300-level undergraduate management course. Since the pedagogical strategies are employed across this instructor’s teaching portfolio, their efficacy could be reviewed not only in other undergraduate courses, but at the graduate level as well. This would allow for an understanding of the difference in their impact (if any) not only at various stages in the undergraduate students’ careers, but also for a comparison between the graduate and undergraduate student populations.

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Further reading

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