Improving Student Engagement: A Look from a K-12 and a Higher Education Perspective

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Student Engagement has long been established as a measure of understanding how students are engaged with their learning experience. Educational professionals are interested in what students are learning as well as how engaged they are in their learning. In K-12, the language may include promoting successful school completion or decreasing dropout rates. In higher education, the language includes persistence rates of entering freshmen college students, completion, or graduation. There are various theories that attempt to explain how to keep students engaged in their learning experience. Researchers have approached the issue from a variety of perspectives especially within the K-12 and higher education realms. This paper explores dropout rates, reasons for student disengagement, and aspects of student motivation within the K-12 setting. The first section reviews the literature and provides background on the theoretical perspectives explaining student engagement in the K-12 setting. The second part of this paper is a continuation of the exploration of student engagement but in regards to the higher education. Aspects of student involvement and engagement inside and outside of the college classroom are discussed.

Although the language used in the higher education changes somewhat compared the language used in the K-12 setting, the meat of the theories have significant similarities. For example, K-12 emphasizes the use of dropout rates to help measure student engagement. Higher education refers the topic of drop outs by measuring graduation or completion rates, which can be used to describe student persistence and motivation. Both the realms of K-12 and higher education have linked participation in extracurricular or community groups with higher engagement rates. Interestingly, many of the theories developed in K-12 have also been found to explain student engagement in the higher education setting. The difference in student engagement language is an example of the disconnect between K-12 and higher education when studying student engagement.

The first portion of this paper explores some of the major theories on student engagement in the K-12 context. This is followed by a section exploring the major theories on student engagement in the higher education setting. The themes of the theories associated with student engagement in both K-12 and higher education tend be very similar and this paper hopes to make evident these similarities in hopes of helping to tailor more efficient and resourceful future research on student engagement.

Pre-College Experiences (K-12): The Foundation for Student Success

Over the course of the past 30 years, there has been a slow but steady decrease in dropout rates amongst high school students across all races (Aud, Hussar, Kena, Bianco, Frohlich, Kemp, & Tahan, 2011). The average dropout rate fell from 14.1% to 8.1% between 1980 and 2009, where dropouts referred to individuals 16-24 who were not enrolled in high school and had not earned a high school diploma or equivalent. Some of the most significant decreases in dropout rates have been among the Black (19.1% to 9.3%) and Hispanic (35.2% to 17.6%) populations, however the substantial difference in dropout rates still remains between the White and Asian populations and the Black and Hispanic populations (Aud et al., 2011). Bridgeland, Dilulio and Morison (2006) reported that of the dropout students surveyed, most believed that they could have succeeded in high school and that they themselves were at fault for dropping out. The study engaged the perspective of the dropout students in an attempt to determine what students attributed to their failure to complete high school. These findings uniquely shared the student perspectives which tend

to be in agreement with previous research approached from the institutional perspective.

There have been many who have attempted to pinpoint the cause of student disengagement from school. Some assert that the cause is a lack of student motivation (Alivernini & Lucidi, 2011). Others claim that poor teacher-student relationships are the crux of the issue (Davis & Dupper, 2004) or that culture or challenging family or social influences are the culprit (Ruiz, Arrebola & Gomez, 2011). The theories are endless, and depending on theoretical approach, there have been a plethora of studies done attempting to better identify the leading causes of student disengagement, a stepping stone that all too often results in dropout. However, Bridgeland et al. (2006) additionally concluded that "there is no single reason why students drop out of high school" (p. iii). In fact, most current research tends to veer away from the idea that student disengagement is the result of a single factor. A trend has developed where research attempts to determine why students drop out of school by either attempting to understand the student perspective, or by attempting to discover correlations between different factors and student dropout. Interestingly, many of the commonly asserted factors of student disengagement have arisen due to common trends in conclusions resulting from studies that have taken very different approaches to tackling the dropout issue.

Bridgeland et al. (2006) tapped into the cognitive reasoning and feelings behind what students thought were the factors that contributed to dropping out and who may have been responsible. Of the 467 dropout students surveyed, 69% did not feel motivated or inspired and 70% felt confident they could have graduated. When asked what would have improved chances of high school completion, the top two suggestions were 1) to provide more real-world learning opportunities and 2) to provide better teachers to keep classes interesting. The top five reasons the interviewees claimed were the major factors for leaving school included 1)uninteresting classes, 2) accumulation of absences and inability to catch up, 3) detrimental social groups, 4) not enough structure and limitations, and 5) the student was already failing school. From a fairly simple straightforward study such as this, it is clear that even from the student perspective, various factors contribute to the chances of dropping out of school.

All of the student responses in the Bridgeland et al. (2006) study reflect a combination of theories previously posed to the K-12 education community with regard to student engagement. For example, the number one reason for dropping out, "uninteresting classes," and the primary suggestion from students to "provide more real-world learning opportunities," reflects years of prior research on motivation and relevance. Brophy (1987) asserted that there are two influences on motivation: trait based which is known as intrinsic motivation, and state based which is the motivation that is associated with the intent of learning the content. Müller and Louw (2004) further categorized characteristics of motivation as amotivation, external, introjected, identified, and intrinsic, all of which can be influenced through more constructivist classroom approaches. They found that motivation is often present when individuals either can relate the classroom content with future value or if the classroom content is personally more relevant to the student. Müller and Louw (2004) discovered that students taught with constructivist approaches developed a higher level of understanding of concepts, especially in math and science. Constructivist approaches include more active, constructive, and social processes that allow students to develop the frameworks of concepts through guidance in activities. Not only have students been found to learn better with constructivist approaches, but they also been found to prefer constructivist learning environments (Hardy, Jonen, Müller & Stern, 2006).

Associated with the idea of a student-centered environment has been the theory that relevance of content in classes has a significant positive impact on student motivation. Cook (2008) refers to relevance as "how pertinent, connected or applicable the curriculum is to the learner personally, to a future career or to the real world" (p.11). Strategies such as Problem-Based Learning (PBL) have become popular methods of engaging students in classrooms by presenting authentic

problems to students and challenging them to solve the problems (Torp & Sage, 2002). PBL not only taps into the relevance of the content to student lives, but also promotes collaboration to develop the best solutions to proposed challenges. PBL is a very constructivist strategy that engages learners based upon cognitive and social theories on motivation. There are also aspects of behaviorism incorporated into the theory of relevance, mostly in the sense that students may now perceive that there is some type of benefit or reward for learning the content. However, some have argued that long term benefits still are not enough to guarantee motivation due to relevance because the relevant rewards are often too far in the future and students are not able to relate to these delayed rewards (Davids & Sidman, 1962).

Two fairly dominant assertions on contributing causes of dropouts include poor teacher quality and a lack of intrinsic student motivation. Saphier, Haley-Speca, and Gower (2008) propose strategies teachers can use in the classroom to improve student motivation by helping students attribute their successes to more meaningful causes such as effort. Their proposed strategies are based on the cognitive and social theories of attribution proposed by Heider (1958), and adapted and refined by Kelly (1967) and Weiner (1980). Weiner's (1979) application of attribution theory to student motivation has been an extremely powerful influence on current teaching practices. The theory stems from the idea that humans are constantly and naturally attempting to better predict or control the things that go on in our lives. We do this by attempting to determine why we were successful or not successful to help avoid any future failures. Attribution theorists in education believe that the individual learns what to attribute successes or failures at school to. Some students may believe they were successful because they were smart. Others may believe the teacher liked them more, and finally others may believe that their hard work was the cause of their success. Saphier et al. (2008) proposed the idea of effort-based learning, where teachers guide students to attribute successes to student effort by providing feedback reinforcing the correlation of effort so success. Emphasis on effort-based learning will result in more ambition, yielding higher success rates, which in turn positively reinforces the student's self efficacy and motivation continuing the cycle and ultimately increasing student engagement and higher graduation rates.

There is a growing general consensus regarding the cause of student dropouts and what teachers can do better to prevent dropouts. Most proposed practices and strategies are supported by a variety of popular theories that are derived from so many different psychological theories. Take as another example, the second most noted response found by Bridgeland et al. (2006) with regard to the reason students dropped out of school: "accumulation of absences and inability to catch up" (p. 3). Student absences have been found to be strong indicators of student dropouts (Barrington & Hendricks, 1989), and differing theoretical approaches have once again yielded results that are supportive of the student perspective from various perspectives. Some of the various social theories involve effects from a student's home life, social life, peer relationships, and teacher relationships, all of which have impacts on student behaviors and performance in school that ultimately impact student engagement. Other cognitive psychologists have focused on the helplessness and anxiety absent students feel as they return to school. An example of a social and behaviorist approach to decreasing student absences has been the involvement of students in extracurricular activities. McNeal (1995) found that students involved in athletic or fine arts extracurricular activities were far less likely to drop out of high school. Other studies have found that the pro-social environment constructed through the participation in extracurricular activities was a significant factor impacting whether a student would complete high school (Randolph, Rose, Fraser & Orthner, 2004).

Amongst all the different factors that impact student life, it seems to be generally agreed that no one factor is responsible for student engagement levels and high school completion. With the acknowledgement that there is no silver bullet, the proposal for schools to implement a balance of strategies is more plausible. Development of research based theories and strategies, and determining which of those theory-based strategies best meets the needs of every student, should be the

focus of all educators and schools. With a shrinking budget and increasing population, schools are in urgent need of relevant, valuable, and diverse research based theories and strategies to help guide their practices in regards to student learning and inherently, improving student engagement.

To further explore the notion of student motivation and engagement beyond high school, the next step is to explore aspects of student engagement as it relates to students in the higher education setting.

Student Engagement and Higher Education

Aspects of student engagement in higher education have been explored using a variety of methods and conducted by numerous researchers over the last 30 years. The main purpose of the research is to help understand student persistence from entering college to ultimately finishing with a degree.

Astin (1984), a pioneer in educational research related to student learning, developed and proposed a developmental theory for college students regarding their involvement. The purpose of his work was to highlight the psychological and behavioral dimensions of time on task and the quality of a student's effort towards that particular task. Ultimately, the goal was to create meaning out of experiences that educational programs and policies may translate into student achievement. Astin changed the term involvement into "engagement" because he believed that the term engagement was a much stronger variable to measure and provided a deeper dimension of understanding. His theory of engagement comprised of five major tenants used to evaluate the level of involvement in a particular college experience. The tenants include: 1) engagement refers to the investment of physical and psychological energy; 2) engagement occurs along a continuum; 3) engagement has both quantitative features; 4) the amount of student learning and development associated with an educational program is directly related to the quality and quantity of student engagement in that program; and 5) the effectiveness of any educational practice is directly related to the ability of that practice to increase student engagement (p. 297-308).

Astin's theory of engagement set the tone for many scholars to contribute research addressing different features of student engagement. Presently, engagement is conceptualized as time on task, quality of effort, and involvement, as well as the impacts those factors on various outcomes of college students (Kuh, 2009). Kuh expanded on Astin's theory of engagement by exploring to major facets regarding activities that are important to the success of college students: in class (academic) engagement and out-of-class (co-curricular) engagement. This type of research reveals that student engagement is positively related to desired outcomes such as cognitive development, self-esteem, moral and ethical development, and student persistence (p. 685).

At the turn of the twenty-first century, student engagement received lot of attention because it was used as a measure to determine and connect institutional resources to student learning outcomes. This was the first major assessment of student learning that connected both in-classroom and out-of-classroom measures associated with persistence, satisfaction, learning and graduation (Kuh, 2009, p. 685). It was also the first time that the regional accreditation agencies were requiring higher education institutes to demonstrate that students were actually learning something.

The move for more accountability with regard to student learning led to the creation of the first national dataset of information about collegiate quality. The survey was developed under the leadership of George Kuh and specifically addressed good practices in undergraduate education. In cooperation with the National Center for Higher Education Management System and a grant from The Pew Charitable trusts, the National Survey of Student Engagement (NSSE) was launched in 1999. The focus of the survey was: 1) the time and effort baccalaureate degree-seeking students devote to educationally purposeful activities and 2) what schools are doing to intentionally channel student energy to these activities (NSSE, 2012). The importance of this type of measurement of student engagement is that

it provides a demonstrated, reliable measurement of student engagement. This information on student engagement can be used by faculty and administrators to develop, enhance and ultimately improve the educational experience for all undergraduates.

After the pilot study, the NSSE has expanded the focus of student engagement by branching into several supplemental surveys that specifically address the needs of a particular population. Some of the focused NSSE surveys include Community College, Law School, Faculty, Beginning College and High School Survey (Kuh, 2009). Since the creation of the NSSE for undergraduates, there have been a number of studies completed that address the movement of student engagement.

One of the most important studies was the Wabash National Study of Liberal Arts Education. It was the first national longitudinal study that examined the relationships between student engagement and some of the foundations of learning outcomes for the liberal arts education. The primary focus of this research is: 1) to learn what teaching practices, programs, and institutional structures support liberal arts education and 2) to develop methods of assessing liberal arts education. Some of the critical factors associated with the study are: critical thinking, need for cognition, interest in attitudes about diversity, leadership, moral reasoning and well-being (p. 687).

Student engagement can be assessed using different measures. Umbach and Wawrzynski (2005) used two national data sets to determine if there was a relationship with student engagement and faculty practices. They found that there was a direct relationship with student engagement and faculty who used a variety of active and collaborative learning techniques. They further found that faculty who engage and interact with students in academic experiences were able to enrich the educational experiences for those students (p. 180). This suggests that there is a greater chance that students will engage in academic experiences with faculty members who develop a meaningful academic relationship with their students. This also indicates that learning is truly a two way street. There must be a balance with students engaging in their experiences and faculty must meet students where they can learn.

Student engagement is one of the most important aspects of determining how students persist from year to year in their college education. There are many influences that are placed on the success of students. The NSSE is but one measure used to help colleges and universities answer questions to determine if they are able to meet the needs of their students and faculty.

Conclusion

The literature suggests that factors such as teacher quality, intrinsic student motivation, and teacher student relationships are related to student engagement in both K-12 and higher education. As mentioned earlier, there is no single solution to the issue of maintaining high levels of engagement. Therefore, leaders should be open to all theories of student engagement and strategically apply those theories that best fit their educational environment. Furthermore, future research should be encouraged to see how specific theories or factors are applied across the K-12/higher education spectrum. Theories of student engagement in higher education may be applicable and have positive effects on the K-12 environment, and vice versa.

The various measures of student engagement in both K-12 and higher education is extremely important as educators work to determine if their programs and curricula are structured in a way that ultimately foster student learning. The aspects of student engagement – time on task, quality of effort, and involvement are still widely used as measures of student engagement. Regardless of the language used or targeted population, the purpose of both K-12 and higher education is to help students achieve and be successful.

Continued research should focus on student persistence all the way from K-12 through finishing a college degree. There are many things that both worlds can learn from each other. However the current research does not sufficiently speak to the commonalities and trends shared by both the K-12

and higher education worlds, especially with regard to student engagement. A more common language should be used to help bridge the gap between K-12 research and higher education research. Although we keep K-12 and higher education separate when studying student engagement, the similarities in theory should convince future research to take a step back and study student engagement across K-12 and higher education. It may be more evident that theories already in existence are applicable across the K-12/higher education spectrum.

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