A Theory of Student Retention: A Background Paper*

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The Beginning: A Longitudinal Model of Student Departure

To understand my model of student departure that first appeared in 1987 in *Leaving College: Rethinking the Causes and Cures of Student Attrition*, it is important to understand the intellectual, social, and political climate in which it developed, namely the student protests of the 1960s and 70's in the United States. Those protests sought to shed light on the role of existing social, political, and economic structures in perpetuating racial and economic inequality in American society. At that time much of the literature that claimed to explain what was then called "dropout" tended to blame the victim; that dropout was primarily the reflection of the attributes of those of who dropped out. My own experience, having been a dropout myself, told me that view was too simplistic, if not racist and elitist, that at least partial if not primary blame had to be assigned to the educational institutions in which students were enrolled that acted in ways that helped produce the very dropout about which they often complained.

Consequently, I sought to find a way of explaining dropout by linking students' actions, staying or leaving, to the actions of the institutions in which students enroll. Though there are several ways to do so, my studies in sociology at The University of Chicago and my personal experiences in the Peace Corps in the mid 1960's and the student protest communities of the late 1960's and 70's led me to look for a way of connecting the role of community to student retention. As fate would have it, I was a participant in an advanced doctoral seminar in which one doctoral student, William Spady, spoke of the work of Emile Durkheim, the first Chair of Sociology at the University of Paris, and his theory of suicide that stressed the role of peoples'

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* Prepared for Staying on Track: New Perspectives and Sustainable Solutions to Educational Dropout of Young Adults, A Conference sponsored by Arhus University, Campus Emdrup. November 28, 2019.

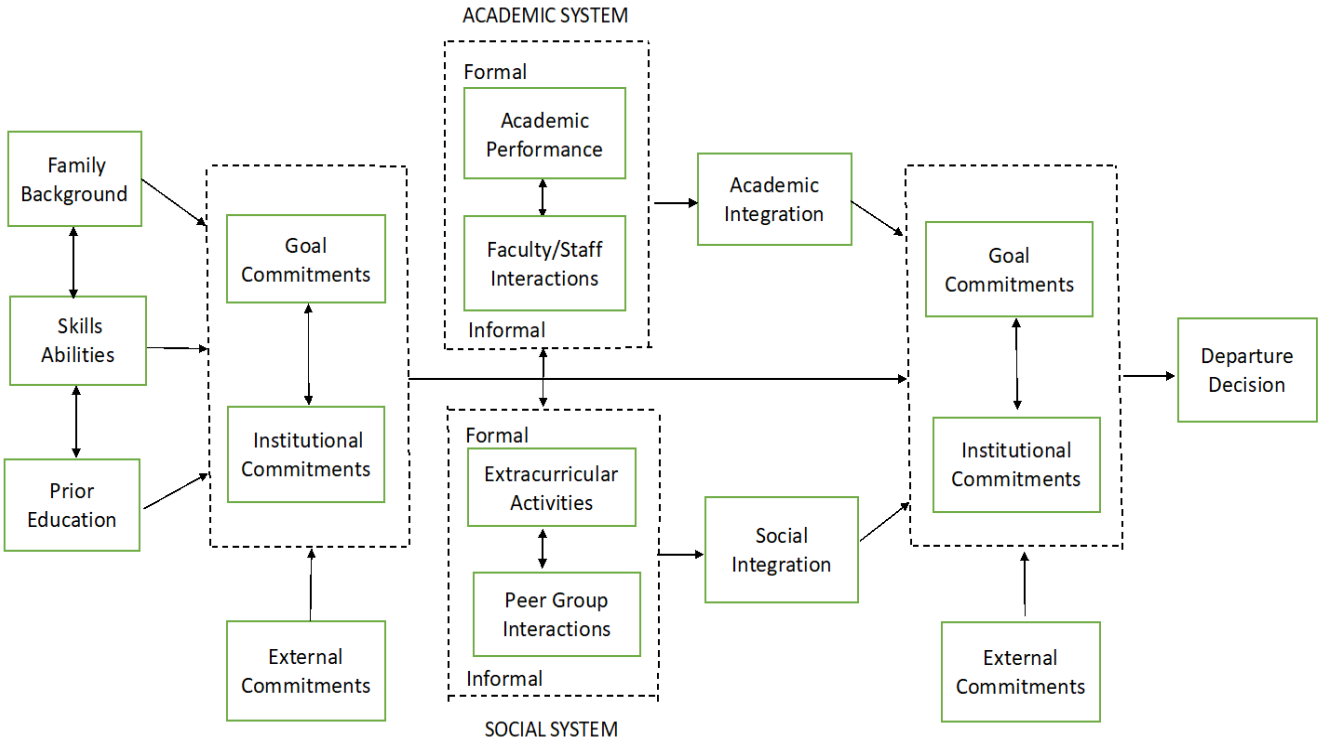
intellectual and social integration in their communities in explaining the rates of individual suicide in those communities.

At once the analogy between suicide and student departure was evident. I found a connection and a framework for a model of student retention. But let me be clear, I do not think dropout is akin to suicide. Rather my use of Durkheim's theory of suicide was its emphasis on the impact of community and peoples' engagement in those communities on their intellectual and social integration and, in turn, their behaviors. Thus, my focus on the impact of students' academic and social engagement on their academic and social integration and their subsequent impacts on decisions to stay or leave.

My initial theory, depicted below, argues that student decisions to stay or leave a college reflect the cumulative impact of students experiences in the formal and informal academic and social systems of the college on their academic and social integration and, in turn, their goals and commitments.[1] Experiences that lead students to see themselves as integrated into those communities, that they belong, serve to reinforce goals and heighten commitment. As a result, they are more likely to stay. On the other hand, experiences that lead students to feel they do not belong, are not integrated into those communities, serve to diminish goals and undermine commitment, thereby increasing the likelihood of leaving. At the same time, the theory recognizes the role of student lives outside the college and the events in their lives that may forces them to leave regardless of their experiences in the institution. This is especially true for non-residential institutions and for older students who work and/or have families. For the latter, the impact of external factors can be especially important. That being said, it remains the case that students who have positive experiences during college are more likely to stay in college or return to college after leaving.

It is important to note that the impact of student experiences on student decisions to stay or leave is shaped in a number of important ways by the character of students' goals. Though it is evident that having the goal of completing college is necessary condition for completion, it is

not a sufficient condition. This is the case not only because events during college can influence students' goals, but also because the goal itself may vary in character and



A Longitudinal Model of Student Departure

intensity.[2] For instance, some students may have more limited goals that do not require completion. Many enroll in college to improve their skills in order to advance in their current occupation. When they do, they leave. Though they may see themselves as having been successful in college, the institution may not share that view. But even if student goals call for completion, not all students intend to complete their degree at the institution in which they first enroll. They intend to transfer to another institution to do so. Other students may not intend to transfer but do not place great importance on completing their degree in the institution in which they first enroll. They may be committed to the goal of completion, but only

weakly committed to do so in their institution of initial enrollment. Conversely others students may enroll in a particular institution because their goal is to obtain their degree from that institution. It is their "first choice." Other things being equal, such students are typically more likely to complete their degrees in their initial institution.

Students may also differ in their reasons for attending college. Some students may be more concerned with the intrinsic benefits of college (e.g. learning, affiliation, development, autonomy), while others more concerned with the perceived extrinsic benefits of college (e.g. income, occupation, further education). Still others attend because their feel obliged to do so if only because of family expectations.

Character of student goals aside, not all students are equally committed to the goal of college completion. While many students are very committed to the goal of completing their studies, often in the face of turbulent headwinds, others may be only weakly committed to the goal of completion. Even the smallest of events internal or external to the institution can sway their desire to persist. For them, more than most students, experiences within the institution can be instrumental in their willingness to persist to completion.

The model also leaves open the possibility that students may persist even if they are not integrated in the academic and social systems of the university. A student may become socially integrated without becoming academically integrated. In that case, however, academic performance may suffer. The opposite may also apply, that is when a person is academically but not socially integrated. In that case a student's academic performance is gained at the expense of social integration and the friendships that emerge. Clearly persistence is most likely, given external events, when both forms of integration occur. Even then it is possible that some students who place great importance on the extrinsic benefits of college or feel obligated to attend college will persist even when they are not integrated into the academic and social systems of the college. For them the perceived benefits of college or perceived obligations outweigh their lack of integration. They persist despite their experiences. Finally, there are

others, in some cases many others, whose external commitments (e.g. work and family) are such as to pull them way from college despite their experiences. In this case, however, more than a few will return to college once those commitments lessen.

My theory and the work of others, most notably Alexander Astin and George Kuh, has shaped years of research on student retention, the development of survey questionnaires to assess the role of engagement in retention, and a range of programs to promote student engagement in the hopes of increasing retention and completion. Though the model is far from complete or without flaws, it has proven useful in shaping retention policies and practices over several decades.[3]

Development over Time

Since its initial development, a number of modifications have been proposed to this model. These range from the inclusion of the economic theory emphasizing the costs and benefits of college attendance to identity theory.[4] Two that deserve comment here are the role of student perceptions and in turn student motivation to retention and the longitudinal character of student's journey through college.

Student Perceptions

Though current conversations about retention often center about the concept of engagement and the focus of a number of survey questionnaires to measure student engagement, Slyvia Hurtado and Debroah Carter made the important point, in their 1966 article, that what matters is not engagement per se, though clearly it must, but the meaning students derive from their engagements with other students, faculty, staff, and administrators as to their membership in the college community.[5] To repeat, the underlying dynamic of student success is based on how students' interactions or engagements with others on campus lead them to perceive themselves as valued members of the academic and social communities of the institution, that they matter and belong. That perception generates, in turn, a commitment on the part of students to the institution. It is that commitment that is the basis

for retention. It follows that retention is unavoidably shaped not only by the individual's prior experiences that shape their values and beliefs but also by the broader value-laden context of the institution and the values and beliefs of the individuals, faculty, staff, and students, with whom the individual interacts. In a very real sense, retention is as much a social, cultural phenomenon as it is an educational one.

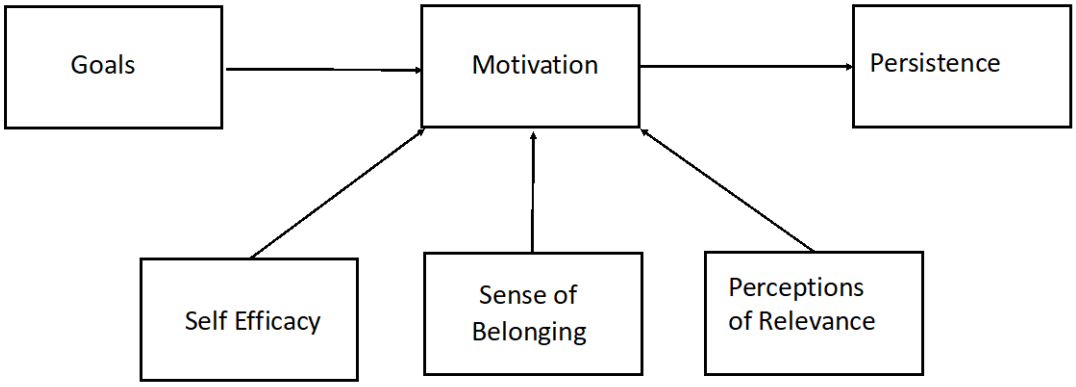
This change in how we understand the underlying dynamic driving student decisions to stay or leave has spurred a range of recent studies on what is now referred to as a "sense of belonging." These, in turn, have been instrumental in how institutions have approached retention in particular, but not only, of low-income students and those from under-represented groups.[6]

Student Motivation and Persistence

The recognition that perceptions shape student responses to their experiences on campus has led me to try to understand retention, persistence, and completion through the eyes of students and apply what we learn when we do so. The fact is that most of our studies have viewed retention through the lens of the institution whose interest is to improve the retention and graduation. They ask what they can do can do to retain more of their students. But seen through the eyes of students, it is evident that students do not seek to be retained but to persist to completion even though it may mean transferring to another institution. The difference in these perspectives is that between being a passive or active actor in the process of retention. The institutional perspective tends to view the students as relatively passive in their persistence, while the student perspective sees students as active agents in their persistence and graduation.

From the students' perspective persistence or its active form "to persist" can be understood as but one form of motivation. Students have to want to persist and do so even when faced with the challenges they sometimes encounter. While there are many forces shaping student motivation to persist, those that are within the capacity of colleges and universities to

reasonably influence are student goals, self-efficacy, sense of belonging, and their perception of the relevance or value of their curriculum. The figure below describes a conceptual model that seeks to capture how these forces interact to shape motivation and in turn persistence.



A Model of Motivation and Persistence

Goals

Though it is evident that having the goal of completing college is necessary condition for completion, it is not a sufficient condition. This is the case not only because events during college can influence students' goals and motivation, but also because students' goals, as we discussed earlier, may vary in character and intensity. But having the goal of completing college is one thing, being clear about what to study is another. Many students are not. Their lack of clarity can undermine completion if only because it may lead a student to question why they are expending effort for an unclear goal. In the United States, for instance, it is estimated that over 35 percent of entering university students are undecided as to their field of study and approximately 30 percent change their major at least once after enrolling. That this is the case

reflects in part the fact that many beginning college students have neither the knowledge, experience, or skills they need to make reasonable decisions as to their field of study.[7, 8] Such differences in the character, intensity, and clarity of student goals matter because students with different goals and reasons for going to college and/or are uncertain about their field of study are likely to be differentially affected by their experiences in college.

It is to these experiences that we now turn. In doing so, we make the assumption that students begin college with at least some degree to commitment to complete their degree in a chosen field of study in the institution in which they first enroll and ask what experiences influence their self-efficacy, sense of belonging, and perceptions of the value of their studies and in turn their motivation to persist.

Self-Efficacy

Self-efficacy is typically defined as a person's belief in their ability to succeed at a specific task or in a specific situation. It is one manifestation of how individuals come to perceive themselves from past experiences and interaction with others and their capacity to have some degree of control over their environment. Self-efficacy is learned, not inherited. It is not generalizable in that it applies equally to all tasks and situations, but is task and situation specific. Believing one can succeed in one task does not imply that one believes in the likelihood of success at a different task.

Self-efficacy influences how a person addresses goals, tasks, and challenges. A strong sense of self-efficacy promotes goal attainment. Persons with high self-efficacy will engage more readily in a task, expend more effort and persist longer in the completion of that task and do so even when they encounter difficulties. Conversely, a weak sense of self-efficacy tends to undermine achievement. As such, self-efficacy is the foundation upon which student persistence is built. Students have to believe or come to believe that they can succeed in college. Otherwise there is little reason to continue to expend the effort to do so.

Self-efficacy is not fixed. It can change. It is influenced by a range of student experiences within the university in ways that can enhance or diminish it. This is especially true of the classrooms of the first year as students try to adjust to the increased demands of university study. Even those who begin their studies confident in their ability to succeed may encounter challenges that weaken their self-efficacy. Conversely students who begin unsure of their ability to succeed may discover they can succeed, if not flourish, in the university. It is telling that self-efficacy assessed at entry to the university is less predictive of students' academic success in the first year than when it is assessed near the end of the first year. What matters is less a function of students' perceptions of their ability when they enter the university as it is that they come to believe or continue to believe they can succeed as a result of their experiences in the first year. The messages they derive from those experiences impact their self-efficacy and in turn their performance in the first year and beyond. New students, especially but not only those who are first in their family to attend university and those from culturally different backgrounds, are particularly sensitive to those messages because they often encounter messages from a variety of sources that they are unlikely to succeed; that they are unfit for university studies.

Of the many experiences students have in the first year that influence their self-efficacy, none are more important than those in the classroom. This is especially true of the actions of instructors whose expectations of students and the messages their behaviors convey influence student's sense of their own abilities to learn and succeed. Rarely are faculty expectations of the ability of their students to succeed in their courses uniform. They reflect a range of forces and past experiences as well as their perception of students' behaviors in class. Importantly, they also mirror faculty views of student development, in particular, whether faculty believe all students can flourish in the appropriate environment or whether some are more limited in their capacity to grow. This may sometimes take the form of stereotypes some faculty have as to the ability of some students to succeed in class or in a particular subject. Take for instance the view held by some faculty that women are not cut out for science or that some students from different cultural backgrounds may be less likely to succeed than other students. This does not mean that student academic ability does not matter. Rather it argues that there are

expectational forces at play that can also influence students' perceptions of their ability to learn and flourish in the university.

Sense of Belonging

While believing in one's ability to succeed in the classroom and having the competence to do so are essential to persistence, they do not ensure it. What is also required is that students become engaged with others and come to see themselves as a member of an academic and social community whose members, faculty, staff, and students, value their participation; that they matter and belong. The result is a relatedness or better yet a sense of belonging that serves to bind the individual to the group or community even when challenges arise.

This is especially important during the first year and the classrooms of that year. Students whose engagement leads them to perceive themselves as belonging in class are more likely to learn not only because it enhances student motivation to learn, but also because it results in students' willingness to invest greater effort in pursuit of their learning. At the same time a sense of belonging leads to subsequent forms of engagement with others that further promotes learning and in turn persistence. This is especially true for those forms of engagement that call for students to be actively engaged with other students in learning activities. By contrast a student's sense of not belonging, of being out of place in the learning environment of the classroom, leads to withdrawal from engagement and undermines motivation to learn and in turn persistence.

Student perceptions of belonging can vary greatly reflecting differences not only in student backgrounds and prior experiences, but also in the value-laden situations students encounter on campus. Colleges are rarely homogeneous. They typically consist of multiple academic and social communities that may have quite different value orientations and embedded cultures. It is entirely possible for students to feel they belong in one setting but not in another. But to the degree that a university has a dominant culture, so too does its actions as a university influence student behavior.

In either case, sense of belonging is a reflection of students' perceptions of mattering and of being validated. To perceive oneself as mattering speaks to the degree to which a student sees their participation in the institution as being valued by other members of the institution. Validation, in turn, refers to a student perception that others in the institution see them as authentic creators of knowledge; their voice is not only heard, but valued. It arises when institutional agents proactively acknowledge and communicate students' capabilities for success both within and beyond the classroom.[9]

Perceptions of Relevance of the Curriculum

Students' motivation is also affected by their perception of the relevance of what they are asked to learn. Though there is considerable debate as to what constitutes relevance, what is not in debate is that students need to perceive the content of their courses to be of sufficient quality and relevance to matters that concern them to warrant their attention, time and effort. Only then will they be willing to engage with their courses in ways that promote deeper, not simply instrumental, learning. Curriculum and teaching practices that are seen as irrelevant or of low quality will lead to inattention and minimal, if any, serious engagement in learning activities. This is especially true for students whose motivation is driven by the intrinsic rewards of university participation such as learning and personal growth. They are likely to ask whether their persistence is worth pursuing given their perception of the lack of meaningful learning.

Perceptions of the relevance reflect a complex interplay among a variety of issues, institutional and personal. As regards the college, it is shaped, among other things, by student perceptions of institutional quality, faculty teaching methods, and the degree to which the material to be learned is seen to apply to meaningful situations or problems. It also mirrors a range of individual attributes in particular student learning style preferences and values. This is the case because the curriculum is more than a collection of facts and modes of analysis. It also contains, at least implicitly, the values of faculty that in large measure determine which facts and

concepts are judged worthy of being presented and which perspectives are deemed appropriate to the analysis of those facts. Too often education is as much socialization into a particular way of understanding as it is empowering the exploration of alternative ways of making sense of the world around us.[10]

It bears repeating that the current conversation is not meant to deal with all aspects of motivation to learn but those that are within the institution's capacity to reasonably influence. Its focus is as much on institutional practice as it is theory. Nor is it concerned with student experiences beyond campus that may also influence motivation. It is entirely possible that even the most motivated students may be forced by external events to withdraw from university study. By contrast, it is possible that some students may acquire knowledge even when there is little sense of belonging or perceived relevance of the curriculum as may be the case for students who are primarily concerned with the perceived extrinsic benefits of earning a university degree. Nevertheless, it is evident in either case that motivation matters and is essential to an understanding of student retention

Persistence as Journey

Though my model of student retention discussed earlier depicts a longitudinal process, a a journey involving two or more years, it does not tell us how that process may vary over the student lifecycle. It assumes, if only by default, that the forces shaping retention in the first year are the same in the years that follow. Yet we know from experience that this is not the case. Unfortunately we have not yet tapped that experience in any rigorous way to extend our current understanding of the longitudinal process of student retention. We do know that the journey students take from entry to completion is very much a developmental process of becoming. It is in two ways. First, for traditional age students, it is a period maturation both intellectually and socially during which a student moves from dependence to self-directedness, from dualistic to more complex views of the world. Second, for all students, it is also a longitudinal process of becoming increasingly skilled and knowledgeable; a process that calls for the acquisition of increasingly more complex skills. It follows that current theory of student

retention would be improved by the inclusions of the insights we have gained from student development theory and, for institutions serving adult students, theories of adult learning. Regardless, the first year is a critical part of the process of persistence and completion for both traditional and adult students as it provides the foundation upon which subsequent success is built.[11].

As a practical matter, knowing that persistence is a longitudinal process of becoming requires institutions to ask how the practices they take to promote student success should vary over the journey students take to completion. For many students, if not most, the first year is a critical year of "becoming" during which they need to learn not only how to navigate the institution, but also acquire the skills and habits of mind needed succeed in the second year and those beyond.[12] It is also that period when issues of self-efficacy, mattering, validation, and sense of belonging are central to subsequent persistence. This is but one reason why colleges and universities are increasingly focused on the first-year experience and programs, such as learning communities, freshman seminars, contextual academic support, proactive advising, and career counseling, to enrich that experience. In the United States, a number of universities are going so far as redesigning their entire first-year to improve retention, especially for low-income and underserved students.[13] The same can be said for universities in a number of other countries such as Australia and Great Britain.[14]

Beyond the first year, the years that follow can be seen as a process of gaining increasing levels of mastery over a field of study and acquiring the skills necessary to succeed in real world settings. Doing so requires that the courses students take are aligned and sequenced in just a way that courses build one upon another in a logical sequence from the beginning to the end of the curriculum. This, in turn, calls for instructors in a program to work together to design the curriculum to ensure that the content of their courses is in fact aligned and sequenced. It also requires that instructors pay attention to the pedagogy they employ in their courses that prepare students for their field of work. Pedagogies such as problem and project-based learning that require students apply what they are learning to address problems or project appropriate

to their field have been shown to be particularly effective in providing the skills students need to be successful in their work. This is especially true when students have to work collaboratively with other students to solve those problems or projects. When implemented correctly, doing so enable students to acquire social as well as occupational skills that are highly valued by employers.[15]

Reflection on a Theory of Student Retention

An understanding of persistence as seen through the eyes of students as they progress through the institution adds a crucial element to my earlier theory of student retention by shedding light on how student social and academic interactions with others on campus shapes student integration and the commitment that follows. It provides the missing link between student experiences, their academic and social integration, and subsequent persistence by offering one way of understanding the dynamic process that shapes student integration, goals, and commitments.[16]

It does not follow, however, that the theory applies equally well to all students. Though in general it does, that is that the persistence of all students can be explained, in part, by the theory of retention as described above, it proves to be the case that the forces shaping persistence differ in degree, and in some respects in kind, for different students as categorized, for instance, by academic preparation, age, income, and ethnicity. For instance, the persistence of students who are inadequately prepared for college and/or have previously fared poorly in a prior attempt at college, issues of self-efficacy and in turn academic support are central, at least initially, to their persistence. For students of different ethnicity, it is likely that mattering, validation, and sense of belonging are more important to their persistence than for students generally. But how it does reflects the cultural environment of the specific institution in which they are enrolled and the presence of programs designed to assist their persistence. For older students, especially for those who have family obligations and/or work while attending college, it is likely that external forces are more a factor in their ability to persist than it may be other students. But for all students, regardless of attributes, relevance matters. If students see little

relevance to their studies to issues that concern them, in particular those concerning future occupation, there is scant reason for them to invest in trying to complete their studies. Though some will if only because of the perceived extrinsic benefits of college, many others will not.

It is also important to remember that we do not have theories that predict individual behavior. Unlike many theories in the physical realm that can accurately predict events, in the social sciences we can only describe the likelihood that people of a given attribute will, on average, exhibit a particular behavior. For instance though we know that low-income students are, on average, less likely than higher income students to complete college, there are some low-income students who complete college and some higher income students who do not. This is not simply a reflection of the limits of any one so-called theory of retention, but the complexity of human behavior. I make this point to remind us that no theory, however well applied, can explain the full range of student behaviors that lead to persistence and completion. But as evidence tells us, a theory such as my own, can help improve institutions improve retention and completion.

Moving from Retention to Learning

There is little doubt that retention matters. Earning of a college degree is a crucial first step on the journey to occupational security and well-being. Over the long term, however, learning matters more. Lest we forget the object of retention is not just that students complete their programs of study, but that they learn while doing so. Education is the goal of retention. Retention is just the vehicle by which learning is achieved.

While college and universities will no doubt continue to focus on improving student retention and completion, as they should, they need to expand their focus to include issues of student learning. When they do, they will be faced with the same questions that have shaped the issue of retention, namely what should they do, not only to support students learning, but also lead students to want to learn. That in turn will be led to the same issues discussed above, namely

student self-efficacy, sense of belonging, and perceived relevance of what they are being asked to study.[17]

Though it is not the place here to delve into the complex issue of improving student learning, we can ask about the practical implications of a focus on student learning. In the great majority of colleges the answer is clear, namely that the experience of the classroom is critical to students' willingness to learn. In the United States, for instance, most students do not live on campus. A majority work, many attend part-time, and often have other obligations beyond the campus. For these students, if not a majority of students, the only time they are on campus is in the classroom. When class is over, many leave to attend to other obligations.

My point is simple. For many students, if not most, the classroom serves as the primary point of engagement and for beginning students the initial port of entry to academic and social engagement in the college more broadly and the first step on the pathway they must travel over time to degree completion. If they are not engaged in the classroom, especially in the first year, it is unlikely they will become engaged elsewhere, technology aside. Consequently, any meaningful theory of student retention and learning must include the classroom and student experience in the classroom.

It follows that a focus on student learning must include the role of teaching staff in the classroom. They, more than anyone else, shape student experiences and in turn their persistence and learning. It highlights the ability of the teaching staff, especially those in the first year, to not only teach students but also to construct classrooms environments in which students are actively engaged, preferably with other students, in learning activities, who obtain support for their learning, and see the materials are relevant to their futures. In other words, classrooms whose character leads students to want to learn. I need not document here the extensive body of research on the impact of such activities, such as cooperative learning, problem and project-based learning on student success; activities that are most powerful when students have to apply what they are learning to the solution of meaningful problems or projects.[18]

Closing Thought:

The events that lead a student to leave are necessarily specific to that student. No two students are alike in their experiences and in the events that shape their retention. That being said, what is an institution to do? Other than tailor specific programs and experiences for each and every student, there is more than enough evidence to support the argument made here that certain issues such as clarity of goals, student self-efficacy and the academic support it calls for, student engagement and sense of belonging, and perceived relevance of the curriculum, are likely to improve student retention. As such it is these issues that institutions should emphasize as central to their efforts to improve retention and completion, especially during the critical first year of college. Again, the question institutions should ask of themselves is not just how they should retain their students, but what should they do to lead more students to want to complete their programs of study.

[1] The term "integration" when first used in the 1960's and 70's in the United States was meant to convey the opposite of segregation. It was not, as some observers argued, meant to suggest that persistence required that all students become the same.

[2] It is important to note that some students, in particular those who enroll in college, have more limited goals that do not require completion. Though they may see themselves as having been successful in college, the institution may not share that view.

[3] For several reviews of student retention theories see Aljohani, O. (2016). A comprehensive review of the major studies and theoretical models of student retention in higher education. *Higher Education Studies. 6(*2), 1-17; Braxton, J. (Ed.). (2000). *Reworking the Student Departure Puzzle*. Nashville: Vanderbilt University Press; and Braxton, J. (2014). *Rethinking College Student Retention.* San Francisco: Jossey-Bass.

[4] See St. John, E, P., Cabrera, A. F., Nora, A., & Asker, E. H. (2000). Economic influences on persistence reconsidered: How can finance research inform the reconceptualization of persistence models? In J. Braxton (Ed), *Reworking the student departure puzzle* (pp. 29-47). Nashville: Vanderbilt University Press and Whannell, R., & Whannell, P, (2015). Identify theory as a theoretical framework to understand attrition for university students in transition. *Student Success,* 6(2), 43-52.

[5] See Hurtado, S., & Carter, D. (1996). Latino students' sense of belonging in the college community: Rethinking the concept of integration on campus. In Stage, F., Anaya, G., Bean, J., Hossler, D. & Kuh, G. (Eds), *College students: Evolving nature of research* (pp. 123–136). Needham Heights, MA: Simon & Schuster Custom Publishing.

[6] Among the many studies of sense of belonging and retention, see Hoffman, M. & Morrow, J. (2002), Investigating "sense of belonging" in first year college students. *Journal of College Student Retention Research, Theory and Practice. 4*(3), 227-256; and O'Keeffe, P. (2013). A sense of belonging: Improving student retention. *College Student Journal. 47*(4), 605-613.

[7] To help students make informed career choices, a number of institutions have taken the cognitive information processing theory approach that emphasis occupational knowledge, self-understanding, and cognitive processing skills (Sampson, Reardon, Peterson, and Lenz, 2004). Peterson, G. W., Sampson, J. P., Jr., & Reardon, R. C. (1991). Career development and services: A cognitive approach. Pacific Grove, CA: Brooks/Cole. Sampson, J. P., Jr., Reardon, R. C., Peterson, G. W., & Lenz, J. G. (2004). Career counseling and services: A cognitive information processing approach. Pacific Grove, CA: Brooks/Cole. Reardon, R. C., Lenz, J. G., Peterson, G. W., & Sampson, J. P., Jr. (2017). Career development and planning: A comprehensive approach (5th Ed.). Dubuque, IA: Kendall Hunt.

[8] It often takes students time to make a decision about their field of study. In response some institutions allow students a semester, sometimes a year to decide on their major and others have developed what here in the United States is referred to as Meta Majors. These programs allow students to experience different areas of study within a field (e.g. engineering) while also received career counselling/advising.

[9] Rendón, L. I. (1994). Validating culturally diverse students: Toward a new model of learning and student development. *Innovative Higher Education. 19*(1).33-51. Rendon, L. I., & Muñoz, S.M. (2011). Revisiting validation theory: Theoretical foundations, applications, and extensions. *Enrollment Management Journal, 2,* 12-33.

[10] It bears repeating that the current conversation is not meant to deal with all aspects of motivation to learn but those that are within the institution's capacity to reasonably influence. Its focus is as much on institutional practice as it is theory. Nor is it concerned with student experiences beyond campus that may also influence motivation. It is entirely possible that even the most motivated students may be forced by external events to withdraw from university study. By contrast, it is possible that some students may acquire knowledge even when there is little sense of belonging or perceived relevance of the curriculum as may be the case for students who are primarily concerned with the perceived extrinsic benefits of earning a college degree.

[11] There are a number of theories of student development. One that is most often referred to is Chickering, A., & L. Reisser (1993). *Education and Identity* (2 ed.). San Francisco, CA: Jossey-Bass. Among those that speak to ethnic identity development, see Phinney, J. S. (1993). A three-stage model of ethnic identity development in adolescence. In Bernal, M. & Knight, G. (Eds.), *Ethnic identity: Formation and transmission among Hispanics and other minorities* (pp. 61-79). New York: State University of New York Press. Also see Kim, E. & Shammas, D. (2019). Understanding Transcultural Identity: Ethnic Identity Development of Asian Immigrant College Students during Their First Two Years at a Predominantly White Institution. *Identity, 19*(3), 212-229.

[12] Parenthetically, the need for students to "become" is the primary source for the development of a range of first-year programs designed specifically for new students (e.g. freshman seminar).

[13] Go to https://aascu.org/RFY/ to locate Re-Imagining the First Year of College.

[14] See McClusky, T., Weldon, J. & Smallridge, A. (2019). Rebuilding the first-year experience, one block at a time. *Student Success, 10*(1). 1-15. Also see the archives of the European First Year Experience conferences.

[15] For instance see https://www.americaachievesednetworks.org/leveraging-projectbased-learning-to-improve-career-readiness.

[16] Despite the use of the term "theory," it must be noted that we do not have theories in the social sciences that predict individual behavior. Unlike many theories in the physical realm that can accurately predict events, we can only describe the likelihood that people with a given attribute will, on average, exhibit a particular behavior. For instance though we know that low-income students are, on average, less likely than higher income students to complete college, there are some low-income students who do complete college and some higher income students will not. This is not simply a reflection of the limits of any one so-called theory of retention, but the complexity of human behavior. I make this point to remind us that no theory in the social sciences, however well applied, can address the full extent of student retention. Nevertheless, evidence tells us that a "theory" such as my own can and has helped institutions improve retention.

[17] For a fuller discussion see Tinto, V. (forthcoming). Learning Better Together. In A. Jones & A. Olds (Eds), *Philosophy, pedagogy and practice: Engaging students in transitional educational spaces.* London: Routledge Publishing.

[18] It is noteworthy that in Australia some educators are raising the question about the need for a pedagogy designed for first year students (see http://transitionpedagogy.com).