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Why Do Students Fail?
Student's Perspective

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Introduction:
Regardless of the effort and support colleges and universities provide to help all students succeed, in the United States alone more than 370,000 students fail out of college every year for various reasons. As reported by the Center for Academic Success of the University of Alabama, "The impact of college failure can cause lasting damage to self-esteem, and the consequences can influence an entire lifetime" (CAS, n.p, ¶. 1). This high failure rate is a national tragedy and it contributes to the low graduation rates in US colleges and universities. In 2009, there was a 29.2% of three-year graduation rate for students earning their associate's degree and a 55.5% of six-year graduation rate for students earning their bachelor's degree (NCES, 2009). In 2010, the graduation rate for students pursuing an associate degree was 29.9% (completed in 3 years) (College Board, 2012), and in 2012, the graduation rate for students pursuing a bachelor's degree was 58% (completed in 6 years) (NCES, 2012). These percentages included only first-time students enrolled full-time. This troubling issue of students failing college is not only a student concern, but it is also a concern for the instructors who teach them. Therefore, it is important to determine the factors that contribute to student failure. All too often instructors feel frustrated and/or feel a sense of personal failure and blame their own teaching for the failure of some students in their classes (Tennen and Hagar 2007, Dawley 1999). While helping those failing students find a way to succeed is part of the instructor's responsibility based on available means and resources, student failure has multiple contributing factors and the instructor's pedagogical instruction and materials are only two of many. Students themselves are even more responsible for their own learning success and failure than their instructors. In his book, "*What the Best College Teachers Do,*" Ken Bain (2004) argues that there is no better way to find out if students think that something has helped and encouraged them to learn, than to ask them.

The Study:
In this presentation we describe a study we conducted with 739 students from two-year (212) and four-year (527) colleges in which we asked them to provide their own perspectives on why students fail college courses at the undergraduate level. The results of the study were organized into seven categories: academic preparedness, attitudes, external factors, instruction and instructional materials, motivation, relevancy, and study habits. The analysis of the study revealed surprising outcomes; we will share the results and discuss the implications of the findings for students, instructors, curriculum, and academic leaders. We propose that being aware of how students themselves perceive the causes of student failure in academic settings is a necessary first step in clinically analyzing the complexity of the problem and in finding workable solutions that could productively lead to helping students.

Methodology:

The methodological research strategy applied in conducting this study consists of four main integrated stages.

- Constructing, distributing, and collecting the survey for the study.
- Preparing the raw data of the survey for study and analysis.
- Analyzing the data.
- Interpreting the results and making sense of the findings.

Stage I: Constructing, distributing, and collecting the survey for the study

As shown in Table 1, a survey was prepared containing one open-ended question that asked, "From your own perspective, why do you think students fail classes?" Additional personal questions related to college level, academic majors, and gender, were included as optional. While the data generated from the use of open-ended questions are not easy to compile and quantify, it is often the best way to find out what you need to know. These types of questions can provide substantial and detail-rich information, especially when they are constructed in a way to obtain usable answers and elicit further explanation.

Initially, we surveyed 10 students and used their answers as the basis for a survey that contained multiple choice options from which students could select, but we decided that this would not work simply because students' answers of why students fail classes cover a wide range of reasons. We were concerned about the objectivity of the outcomes and decided against this approach in order to ensure that we did not limit student's options and thus miss some important reasons. In addition, we didn't want to give any suggestions to the students. Thus we agreed on one single open-ended question which is shown in Table 1.

Table 1
The question of the study and how it was presented to the students

Dear Student: We are working on a study to identify what we can do to help students succeed in class. We would like your help in answering the following single question.				
As a student, and from your own perspective, _"Why Do You Think Students Fail Classes?"_				
Optional	Major	Science		Non-science	
	College Level	2-year college		4-year college	
	Gender	Female		Male	

Stage II: Preparing the raw data of the survey for study and analysis

Copies of the final survey were distributed to 900 students from two-year (300) and four-year (600) colleges located in the Midwest USA. Out of these 900, 739 (212 + 527) were completed and returned, an 82.1% rate of return.

After the surveys were collected, a copy of each survey was distributed to three independent reviewers. Each of the reviewers read and identified key words, phrases, and/or sentences that indicated answers to the posed question. Upon completion, the three reviewers shared and compared findings. Table 2 below shows the methodological strategy and mechanism that the three reviewers followed and applied for accepting a given answer.

Table 2
Methodological strategy and mechanism applied for accepting a given answer

	Outcome Condition	This means	Result
1	An answer selected by the three reviewers.	Agreement among the three reviewers.	Accepted with no further analysis to use in the study.
2	An answer selected by two of the three reviewers.	Agreement among two of the three reviewers.	The answer was critically discussed but the one who disagreed with the answer must convince at least one of the two who selected the given answer. a. If at least one of those who selected the answer agreed with the one who didn't select the answer, then the answer was rejected and is not included in the analysis. b. If neither of the two who selected the answer agreed with the one who didn't select the answer, then the answer was selected and is included in the analysis.
3	The answer selected by only one of the three of the reviewers.	Two reviewers disagreed with the third reviewer for selecting a given answer.	The reviewer who selected the given answer must convince the other two with the reason for selecting this answer. c. If at least one of the two agreed with the answer, the answer was selected and is included in the analysis. d. If neither of the two who disagreed changed their mind, the answer was rejected and is not included in the analysis.
4	The answer was not selected by any of the reviewers.	No agreement among the three of the reviewers.	The words, phrases, and sentences that were not selected by any of the reviewers were re-visited, discussed and: 1. If one of them was selected by the three reviewers, then it is included. 2. If one was not selected by the three reviewers, then it was rejected.

After the three reviewers agreed on the key words, phrases, and sentences that indicated answers to the posed question, they were compiled into a list with the number of times each answer was mentioned or identified. The final list from the 2-year college student surveys

contained 84 different types of answers with a total of 596 identified given answers. The final list from the 4-year college surveys contained 109 different types of answers with a total of 2088 identified given answers. The total of identified answers from all the participants in the study was 2684 (596 + 2088).

Stage III: Analyzing the data

Copies of the final list of identified key words, phrases, and sentences that indicated answers to the posed question listed with their number of frequently mentioned times were given to six independent colleagues, three with PhDs and three with Masters Degrees. These six colleagues were individually asked to read the identified key words, phrases, and sentences that were listed. Then we gave each one of them a copy of Table 3 and asked them to individually group the identified key words, phrases, and sentences that were listed into categories, sub-categories, and specific reason.

Upon completion, we collected the six independent colleagues' tables, sat with them and discussed how they congregated the students' answers into categories, subcategories, and specific reasons. Then collectively, we agreed on using the following categories, subcategories, and specific reasons to group the students' answers. Based on the survey answers given, the reasons for student failure were divided into seven main categories and fifteen sub-categories. As seen in Table 4, the categories included motivation, study habits, instruction, external factors, academic preparedness, attitudes, and relevancy issues. The sub-categories included, (but were not limited to), level of interest, lack of conscientiousness, laziness, study habits, managing time, instructor's interaction and materials, counseling and tutoring, perceptions of the class, outside influences, cost of education, academic challenges, stress, course rigor, pride, attitudinal concerns, and disconnect of course work.

Table 3
Example of a table that was given to independent colleagues to sort the
students' answers into categories, subcategories, and specific reason

	Category	Sub-category	Specific Reason	Time Mentioned	Notices
I					
II					

Table 4
Identified categories and sub-categories of the students' answers to posed question

	Category	Subcategory	Notices and Observation
I	Motivation	Level of interest	
		Lack of conscientiousness	
		Laziness	
II	Study habits	Study habits	
		Managing time	
III	Instruction	Instructor's instruction	
		Perceptions of the class	
IV	Academic Preparation	Academic challenges	
		Stress	
		Course rigor	
V	External Factors	Outside influences	
		Cost of education	
VI	Attitudes	Pride	
		Attitudinal concerns	
VII	Relevancy Issues	Disconnect of course work	

Finally, we asked 10 additional colleagues to help us during the process whenever we encountered a phrase or sentence in a given student's answer that doesn't directly fit into any of the identified categories or sub-categories.

Results:

I. Participants' Personal Portfolio:

Out of 900 surveys distributed to students, 739 completed surveys were collected, or an 82.1% rate of return (see Table 5). As shown in Tables 6 and 7 below, there were slightly more female (52.2%) than male (35.6%) participants. Nearly an equal number of participants major in science (46.4%) and in non-science majors (47.6%). There were more 4-year college students (527 or 71.3%) than 2-year college students (212 or 28.7%).   While there were more non-science majors (302) than science majors (196) from the 4-year colleges, there were more science majors (147) than non-science majors (50) from the 2-year colleges. Finally, a total of 2088 responses were identified from answers provided by the 4-year college participants, and a total of 596 responses were identified from the 2-year college participants (see Table 8).

Table 5
Distributed and Collected Surveys for the Study

College Type	Distributed Surveys	Collected Surveys			Total Collected	Rate of Return
		Female	Male	No Reply		
2-Year	300	126	62	24	212	70.7%
4-Year	600	260	201	66	527	87.8%
Total	900	386	263	90	739	82.1%

Table 6
Participants' Information Portfolio I (Gender)

| College Type | Student Participants (n = 739) | | | | | | Total | |
| | Female | | Male | | No Reply | | | |
	#	%	#	%	#	%	#	%
2-Year	126	17.1%	62	8.4%	24	3.2%	212	28.7%
4-Year	260	35.1%	201	27.2%	66	9.0%	527	71.3%
Total	386	52.2%	263	35.6%	90	12.2%	739	100%

Table 7
Participants' Information Portfolio II (Academic Major)

| College Type | Student Participants (n = 739) | | | | | | Total | |
| | Science | | Non-Science | | No Reply | | | |
	#	%	#	%	#	%	#	%
2-Year	147	19.9%	50	6.8%	15	2.0%	212	28.7%
4-Year	196	26.5%	302	40.9%	29	3.9%	527	71.3%
Total	344	46.4%	352	47.6%	44	6.0%	739	100%

Table 8
Participants' Provided Total Answers

| College Type | Participants (n = 739) | | Participants' Provided Answers (n = 2684) | | | | | |
| | | | Provided | | Used In Study | | Not Used | |
	#	%	#	%	#	%	#	%
2-Year	212	28.7%	596	22.2%	596	22.2%	0	0%
4-Year	527	71.3%	2088	77.8%	2088	77.8%	0	0%
Total	739	100%	2684	100%	2684	100%	0	0%

II. Participants' Response to Inquiry Question:

General Results:

Based on the analysis of the answers given by the student participants, the reasons for student failure were grouped into seven main categories and fifteen sub-categories. All responses fell under one of the specific fifteen identified sub-categories. While it could be disputed as to

which category or subcategory some of the responses belong in, distinctions can generally be made for the seven separate categories and the fifteen separate sub-categories. Table 9 shows a summary of students' answers.

Table 9
Participants' Provided Total Answers Based on Identified Categories (n = 2684)

	Category	2-Year College		4-year College		Total	
		No.	%	No.	%	No.	%
I	Motivation	167	6.2%	762	28.4%	929	34.6%
II	Study habits	145	5.4%	320	12.0%	465	17.3%
III	Instruction	91	3.4%	184	6.9%	275	10.2%
IV	Academic Preparation	55	2.0%	259	9.6%	314	11.6%
V	External Factors	58	2.2%	241	9.0%	299	11.1%
VI	Attitudes	77	2.9%	206	7.7%	283	10.5%
VII	Relevancy Issues	3	0.1%	116	4.3%	119	4.4%
	Total	596		2088		2684	100%

As shown in Tables 9, Category I deals with motivation and related issues, which were mentioned a total of 929 times (34.6% of responses). It includes those reasons which pertain to students' level of interest, laziness, and lack of conscientiousness. Category II deals with study habits and related issues, which were mentioned a total of 465 times (17.3% of responses). It pertains to students' study skills and learning and work habits, including taking many classes.

Category III lies entirely with instruction and related issues and were mentioned a total of 275 times (10.2% of responses). It deals with the instructor's interaction with the class and the students as well as with the students' perceptions of the class. Category IV includes the student's academic preparedness and was mentioned a total of 314 times (11.6% of responses). It deals with academic challenges, stress, and course rigor.

Category V deals with external factors that students have nothing to do with, which were mentioned a total of 299 times (11.1% of responses). It included outside influences and the cost of education. Category VI which deals with students' attitudes was mentioned a total of 288 times (10.5%* of responses). It included one's own pride and attitudinal concerns. Finally, Category VII deals with all the other relevancy issues that are related to students' disconnecting with course work which was mentioned a total of 119 times (4.4% of responses).

Analysis and Discussion

The participants provided us with many reasons for why some students may academically fail college work. Based on the analysis of the answers provided, the reasons for student failure were grouped into seven main categories and fifteen sub-categories. All responses from the

students surveyed fell under one of the specific fifteen identified sub-categories. In order to get a sense of the results and what they really meant to students, after we completed compiling the results, we went back to discuss our findings with two separate groups of students. One group of students was from a 2-year college and the other group of students from a 4-year college. The feedback that we got from the face-to-face in-depth discussion with the students helped us in our analysis of the results. Furthermore, using the "Root-Cause Analysis" mechanism to facilitate the analysis, we found out that all the categories can be tied into one or more of the following four general areas as seen in Table 10:

1. Individual students' abilities & efforts (1991 or 74.2%).
2. Individual students' efforts but with strong influence from outside factors (119 or 4.4%).
3. Class learning materials, instruction, instructors and school environment (275 or 10.2%).
4. Factors outside students' control (299 or 11.2%).

Figure 1
Graphical Portrayal of "Root Couse Analysis (n = 2684)
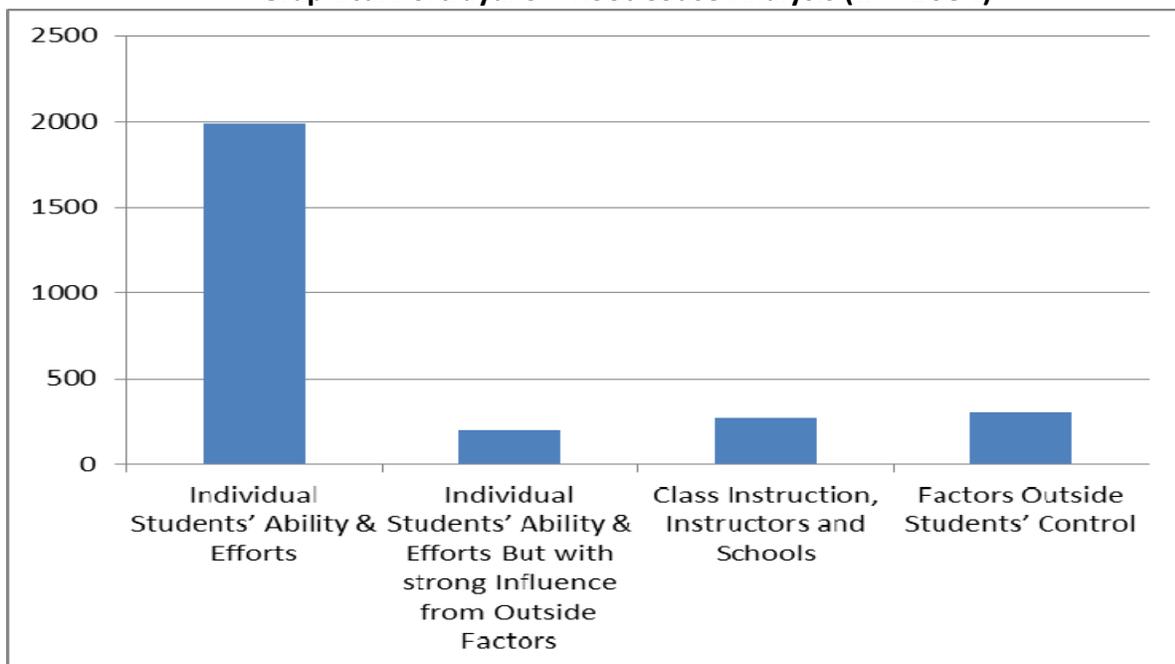
Table 10
Using "Root-Cause Analysis", all the categories
can be tied into one or more of four areas (n = 2684)

Category		Tied into			
		Individual Students' Ability & Efforts	Individual Students' Ability & Efforts But with strong Influence from Outside Factors	Class Instruction, Instructors and Schools	Factors Outside Students' Control
I	Motivation	929			
II	Study Habits	465			
III	Instruction			275	
IV	Academic Preparation	314			
V	External Factors				299
VI	Attitudes	283			
VII	Relevancy Issues		119		
Total		1991	119	275	299

Root Cause Analysis:

In analyzing their responses to posed questions, we found that students mention multiple factors and see the issue of failure from multiple angles. In addition, when some students mentioned the same key words or phrases, such as motivation, study habits, academic preparedness, etc., in their answers, the explanations sometimes led to different roots. The following are only two examples of these tendencies.

Table 11: Examples of Root Cause Analysis

Cause	Root	Factor
Failing is related to the fact that students are not motivated because:	Instructors failed to make classes interesting to capture students' attention.	Instructor Factor
	Students are not interested in education.	Motivational Factor
	Classes are not interesting, especially those which have nothing to do with their majors and planned careers.	Relevancy Factor
	Students think they are smarter than instructors and could easily pull grades up as in high school.	Attitude Factor
Students' effort cause students to fail because	Instructors failed to see that the students' efforts were not enough and did not provide the right advice and assistance.	Instructor Factor
	Student didn't put enough effort into attending classes and on their school work.	Motivational Factor
	Instructor refused to count students' efforts in class as worth a grade, like quizzes and exams.	Instructor Factor
	Instructor refused to count students' efforts in class as worth a grade regardless of failing to complete	Academic Preparedness Factor

	homework or pass the exam.	
	Students didn't accept that college needs more effort than high school if they are to succeed.	Attitude Factor
	Students had not yet realized college life and work are different from high school and require different types of efforts to succeed.	Attitude Factor

Motivation

Lack of motivation and related matters is the category mentioned most frequently (929 times or 34.6% of responses) as the reason why students fail classes. If the student doesn't have the self-drive to succeed, or see the benefit from successfully finishing a given course, then he or she will not try to invest in the class and thus not succeed. Realizing why he or she needs to succeed becomes the key to making a decision to invest in a given course which is needed to unlocking the door to success. Self-motivation also helps to empower students to be in control of their own education and keeps them from giving up when they are faced with academic, social, and personal difficulties. There is also a correlation between lack of self-motivation and lack of perseverance. Students with strong self-motivation apply their perseverance, mental capability, and energy to do everything in their power to learn the required knowledge and skills needed to succeed in new courses and programs no matter how hard the task is. As one student said, *"If you don't understand it, memorize it; the bottom line is, you have to own it and deliver it when needed".* Motivated students invest time and energy to work through every task and keep repeating things over and over again until they master them and go forward. When they realize that they need help, they don't become timid about getting appropriate assistance, but aggressively go for it.

Whether students come to class with a disinterest or begin to lose interest in the subject during the class, lack of interest in the subject discourages students from staying in the class and/or working hard to achieve a good grade. In addition, lack of interest prevents students from being enthusiastic and taking the class seriously. Furthermore, if students have low self-esteem, don't care how well they do, and/or don't care about their own education, then their classes are not going to be a priority for them. With this type of attitude, students plant the seed for failure in their current courses and in future courses.

Laziness was also reported as one of the main contributing factors for student failure. Participants explained that when students are lazy, they do not exert that much effort in their class and simply give up when they encounter the first obstacle. Some participants stated that students don't exert enough effort and don't bother to find out how much work is really needed to pass a given class either from the instructor or fellow students; a form of unconscious laziness that students don't realize is part of their own character and behavior.

Finally, under the category of Motivation, participants reported lack of conscientiousness as a factor for student failure. They stated that most students have the tendency to give up

easily after falling behind and find it very hard to catch-up, and thus do the easy way out; run away and give up the whole thing.

In conclusion, in order to succeed, students need good reasons behind why they are taking a given course and why they are in school. Students also need to care about themselves and their education by setting expectations and achievable goals for themselves. Those who do care seek out help and ask questions when needed. By doing so they ensure their own success and that their education meets their individual needs. Students in this study did realize that student's individual motivation is essential for their success, but also realized that they need help in becoming and staying motivated in their classes and education. In short, we can conclude that academic success is not governed by a student's cognitive abilities alone. Students need to be motivated to want to learn and work hard at it to make faster gains and learn better than those who are bright but less motivated (Blue, 2012).

Study Habits

All too often, faculty feel frustrated to see their students struggle with course content simply because of their students' poor study habits and time management skills (Tennen and Hagar 2011). In our study, study habits and managing time are both combined under one category called "Study Habits" and were mentioned 465 times (17.3% of responses) as factors contributing to student failure. There is a connection between poor study habits including poor study skills, poor time management, and an inability to identify and establish priorities—and the increased potential rate of academic failure among students. These days, many students seem to not know how to study, or just don't study and do homework regularly. Participants thought this was due to students' lack of concentration and/or not paying attention to school work simply because of the lack of experience or due to too many outside distractions that compete for students' attention.

Furthermore, as some of the participants reported, many students are not accustomed to managing their time because they have no idea how much time and energy college work demands. Many of them become stressed when they discover that their college work requires much more time and effort than their high school work did, or when they realize that what was acceptable in their high school is not acceptable in college.

They so often over-commit themselves by taking either too many courses or wait to the last minute to do their work. As a result of the poor time management, a number of students lose sense of time and suffer from the procrastination syndrome. When they realize that, it is often too late for them to catch up or they don't know how to catch up.   They end up feeling stressed out, produce substandard school work and perform poorly on quizzes and exams. Typical responses from students include that there is "too much schoolwork", "not enough time to study", and/or "too much reading and written work".

Everyone would agree that instructors want their students to succeed and that students with good study habits achieve better grades and are more successful in their classes than those who don't. Poor study habits, time management, and study skills are among the impediments that stand in the way of learning for many students (Tennen and Hagar 2011).

When the unconscious inclination to perform a process and an act of pursuing knowledge becomes an established trend of a given student's mind or character, then this student can be characterized as having productive study habits. In this sense, study habits and time management are connected to self-motivation because it is the student's motivation that keeps him or her from giving up when faced with difficulties. Unfortunately, however:

> *Most students are not aware of the value of good study skills to their success. Unless they're among the fortunate few who have taken a study skills course, note taking and studying are at best a haphazard collection of habits that have been developed over time. The first thing students must recognize is the benefit of good study habits.   You can help by taking a few minutes of class time to encourage students to improve their study skills and by giving them compelling reasons why it's worth their time and effort. (Tennen and Hagar 2011, ¶. 4).*

Academic Preparedness

We all know that one of the major differences between college and high school academic work is that college work requires all types of thinking (critical, analytical, creative) and in-depth readings other than just rote memory and shallow reading. It is also a very well-known fact that in many colleges and universities faculty enter classes every day full of students with a wide range of learning needs, levels of preparedness, and social and cultural backgrounds. This range of capabilities in the classroom is not only a frustrating phenomenon that drives faculty to feel overwhelmed, but also a condition that drives some students to feel lost in the classroom environment.

The participants in this study mentioned academic challenges third most frequently as a contributing factor for students' failure at the college level. It was repeated a total of 314 times (11.6% of responses). The overall message is that a number of students fail simply because they were not capable mentally and/or not prepared academically (or both) for college-level school work. Those types of students take difficult classes without realizing that they don't have the background that enables them to understand the subject and successfully complete course requirements. Possibly they have no idea of the amount and quality of work demanded by college or that the time and energy required by typical college work is much greater than those demanded by even the toughest high schools. As reported by the Center for Academic Success of the University of Alabama, in college, "students may actually work harder than they have ever worked before and still find that their

efforts are not sufficient" (CAS, n.p, ¶. 2). This leads students to feel overwhelmed and stressed, and to blame the rigor of the course as the reason for their failing. Furthermore, stress as a result of an overwhelming schedule also contributes to student failure. It is important to note that many students do not "*really* understand the importance of studying in college and if they let other activities get in the way, chances are they will not do very well in college" (CAS, n.p, ¶. 3).

Lack of academic preparedness doesn't always mean that students are not intelligent, bright, and/or hard workers. Often, students are not prepared academically because they have poor language, communication, and writing skills that are needed in order for them to comprehend what they learned and communicate what they understood to others. We all could easily agree that the success or failure of a student at college is directly related to their ability to read, write, speak, and listen with comprehension. Many college instructors believe that it is not their job to teach language and communication skills in their courses. But while these language and communication skills might not be the responsibility of colleges to teach, and even though students should learn them at the K-12 levels most students come to college without mastering these skills to the degree that enables them to succeed at the college level (Backboard Institute, 2012; Casner-Lotto, 2006; Cherif & Wideen, 1992).

External Factors

External factors included outside influences, such as the need to work while going to school and the cost of education, which are outside of the control of students. This category was mentioned the fourth most frequently as a factor contributing to students failing courses at the college level. It was mentioned a total of 299 times (11.1% of responses).
The participants reported that unforeseen circumstances including illnesses and family tragedies are outside influences that affect students' performances, and they have no power over them. But they also reported factors such as drugs and alcohol which are factors that are under their own control.

Cost of education and the fact that some school supplies are very expensive, were also mentioned as a factor for failing classes. Some students told us that because of the cost of education, they maximize the number of courses they take to save money. These students were aware that they might end up dropping some of the courses if they felt overwhelmed and not able to handle all of them. This type of student relies on the possibility of dropping a course if they find themselves in a bad situation. On the other hand, some participants perceive this situation as bad time management and study habits. Taking more classes than what they can handle is an unwise decision because it will lead to worrying, stress, and in turn undesirable academic performance. So it is more an issue of management than a cost of education issue.

Cost of education, however, has been on the rise in the last ten years in the United States, and recently, many states have cut budgets for education significantly. This of course forces colleges and universities not only to raise their tuitions, but also to cut the scholarships that they could offer their incoming students. And what does this do? Clearly, it forces those students who desire a higher education and cannot afford it to go to college and work at the same time.

Student Attitudes

A student's state of mind controls not only how s/he feels and perceives the world, but also how to behave in an evaluative manner toward school work, course learning materials, class policies, instruction, instructional materials, and instructors, etc. Because of this, a student's state of mind has a major effect on how a student performs and in turn succeeds in a given class. This means that there is a positive correlation between a student's state of mind, which we call attitude, and academic achievement (Russell and Hollander 1975). Thus, a student's attitude is an extremely important factor in learning (Blake & Hanley 1995) because it directs his or her aspirations and ambitions. For example, students who are not willing to ask questions and/or are not ready to say that they need help, have a greater tendency to fail than those who do ask for help. By asking questions and asking for help when they need it, students help maximize their rate of success.

Student attitudes was the fifth most mentioned as a contributing factor in students' failure in the academic setting and was mentioned 283 times (10.5%* of responses). Student attitudes can take various forms. For example, being overly proud to the point that one is unwilling to ask for help when it is really needed can strongly contribute to the failure of some students. Another example of attitudinal factors was that some students developed a bad or negative attitude toward school and school work which prevented them from engaging in school work. This usually happened as a result of an unpleasant learning experience and/or bad communication or a misunderstanding with an instructor, staff, administrator, or even fellow students that he or she couldn't overcome.

Furthermore:

> *Negative Thinking; this one bad habit can wipe out all the student's good study habits. I mean if the student perennially thinks he or she does not understand the subject or that the subject is just too hard for him or her, no amount of studying or copying notes or doing assignments can really make up for this one bad habit. It will just simply block everything because the student is setting himself or herself up for failure. Accounting [for example], is already a difficult subject as it is, adding to this one's resistance to learning and everything will just really be for nothing. I'm a strong believer of mind over matter when it comes to this subject and if the student thinks he or she cannot understand the subject, chances are, he or she will never understand it. This is what one of my students did and she, needless to say, failed my subject. (Hubpages 2010, ¶. 9)*

A student's negative attitude toward a certain subject such as science could also be the result of how we teach those subjects. For example, the way science has been taught, both at the high school and college levels, plays a major role in shaping students' attitudes toward science (Cherif and Wideen 1992). Often, students in high school are being presented with selected aspects of scientific dogma rather than being taught the innovative and visionary character of science and the value that such knowledge has to the educational process. When they go to college, some of these students could easily become confused because the information they learn in college contradicts the information they gained in their high school science classes. This dogmatic approach to teaching science, coupled with the drastic cultural changes that students undergo as they transition from high school to college, affect students' attitudes toward and performance in college-level science courses. Though the development of desirable attitudes toward science is not the primary goal of introductory science courses, instructors usually recognize that attitude formation is one of the important aspects of instruction (Cherif and Wideen 1992; Garcia and McFeeley 1978). This is simply because there is substantial evidence that students who possess positive attitudes toward science will perform better academically (Movahedzadeh, 2012; Russell and Hollander 1975); the same can be said about any subject.

Instruction

Factors contributing to student failure related to instruction are mentioned 275 times (10.2% of responses) which make it the sixth most mentioned factor. Under this sub-category, reasons included that classes are boring and/or students are not challenged, so they don't invest time in the courses nor make any effort and thus end up failing. Some participants attributed failure to insensitive instructors or faculty who don't engage students in active learning by moving too quickly through the materials and with no chapter reviews. In addition, some students don't get along with the instructor which results in students' failure. Instructors who are not clear enough in presenting information cause students to have a misunderstanding sometimes resulting in failure. Furthermore, some students develop the belief that the instructor would pass them regardless, and thus end up doing nothing, resulting in their failing the class.

Just as instructors feel frustrated when their students fail, students feel frustrated too. Some students feel that the content of the final exams of some instructors are purposely more rigorous and did not line up with the course content they had been taught.   It is a fact that some instructors, especially at the graduate level, have a tendency to teach what they like regardless of the course content and policies. But the question still remains: If the majority of students were able to successfully complete the exam, why is it that certain students couldn't? Is the student complaining because he or she couldn't pass the exam and using the content as an excuse for the failure? Or did the exam really not cover what the students learned in the class, or what they were supposed to learn?

Relevancy Issues

The least repeated root cause for students' failing classes at the college level was the feeling of disconnect with the course work or that the subject being taught doesn't apply to their fields or major. It was mentioned 119 times (4.4% of responses). Many students coming out of high school are not able to see the value in doing well in college if they cannot see the relevancy of the learning materials to their lives. When students do see the relevancy of the learned topics to their major, career, and daily life, they are motivated to become involved students in the learning activities rather than to be passive receivers of information.

There is growing evidence that "courses with learner-centered approaches – those approaches that use active learning strategies to engage students directly in learning processes — enhance academic achievement and promote the development of important learning skills, such as critical thinking, problem solving, and the ability to cooperatively work with others" (Weimer 2012, ¶. 2). Derting and Ebert-May (2010) found that "the benefits of learner-centered teaching may extend far beyond the class(es) in which such teaching occurs" (p. 471).

Some argue that there is really no direct relationship between learner-centered instruction and making the learning materials relevant to students. They argue that while it helps to see the connection, it doesn't matter whether or not the materials are relevant or not; if certain concepts or course materials are required to be learned, then it is the student's responsibility to learn them. Students need to assume responsibility and the failure to do so would transcend into failure in college and maybe in life. Unfortunately though, many students need to see the relevancy to stay engaged and motivated.

Conclusion

Retention, which is one of the most critical issues facing colleges and universities today, is directly related to students' success and failure in school work. Students who fail most often leave colleges either on their own or because they are forced to do so by school policy and regulations of not meeting course passing requirements. In both cases, it is a loss for the students and the college. From the results of this study, we can conclude that participants did hold themselves accountable for their own success or failure. After all, each classroom with its instructor, students, learning materials, and learning environment represents a dynamically active ecosystem in which "learning from instruction requires the learner to play an active role in order to acquire new knowledge successfully" (Shuell 1988, P. 276).

Motivation and study habits are mentioned most frequently as the root cause behind student failure at the college level. These two factors, as well as academic readiness and student attitudes (which are mentioned third and the fifth most frequently) are fundamentally under the control of the students. The instruction, instructional materials, and instructors, over which we as faculty, educators, and college administrators have power, came a distant sixth. This

means that students are aware that the reason why students fail courses most often resides within them and are under their own power. For faculty and administration to say that students are unmotivated and unprepared academically and mentally for college education is perceived as an unsupported indictment. But for students themselves to say that students often fail because they are unmotivated and unprepared academically is perceived as admitting self-facts and a loud cry for help.

While we, the faculty, educators, and college administrators are not blamed directly by students, and though we have only limited power over students' attitudes, academic readiness, and study habits, in the classroom setting we control the learning materials, learning environment, and pedagogy through which we can influence student's motivation, study habits, and attitudes, and help them see the relevancy of what they learn to their life and future careers. But this is a new challenge for both faculty and college administrators who have been holding the belief that they are there to teach certain topics and skills based on a signed contract between the college and given students that lead to specific academic degrees. Helping students to become motivated, influencing their study habits, improving their attitudes, and making the teaching materials relevant to students' lives is very rarely a part of what faculty and educators at the college level think of when they design their courses, teaching approaches, and assessment strategies. For many instructors, if students become motivated in their classes and develop a better attitude toward learning, this is a by-product of what they mainly do with their teaching materials and approaches. However, students in this study are telling us that even though colleges and faculty are not required to teach students how to be motivated or study better, these factors often cause them to fail courses. Thus colleges and their faculty need to help students to become motivated, to be more academically prepared, to develop better attitudes toward learning and education, and to develop better study habits. So, as faculty, educators, and college administrators, what can we do with our curriculum, teaching approaches and strategies, and learning environment to help students become more motivated to learn and become interested in education? Do we need to do things differently than the way we have been doing all these years? It is a fact that today's students are different from when we were college students. It is also a fact that the challenges and the opportunities they face today are different from those that students were faced with only 10-15 years ago.

In short, lack of motivation is the leading cause behind students' failure or success in completing school work. Motivation influences students' attitudes, study habits, academic readiness, etc. Through the college learning environment, learning materials, and instructional pedagogy, faculty, educators, and college administrators can help students invest in their courses and in turn succeed. Students who have a good understanding of the content being taught are generally more motivated and have a more positive attitude and thus have a greater chance of doing well in their school work. And in order to ensure that students have a good understanding, instructors should provide students with learning opportunities that are engaging, pique their interest, and allow them to reconstruct their own knowledge. Students know it is their responsibility to do well, but many students need extra support from their college and instructors to help keep them interested and on track.

Finally as Professor James Ricky Cox from Murray State University recently stated:

I have realized that students truly struggling with the material often need a new way of approaching problem solving and concept mastery. One successful approach has been to encourage students to draw diagrams and sketches (external representations) to help organize information and ideas. This allows them to apply their creativity and right-brained skills to tackle more analytical tasks. The most rewarding and meaningful experiences of my teaching career have been the success of students who once struggled but ultimately overcame their difficulties. In my mind, a student's journey from failure to mastery (or struggle to success) is what higher education is all about, and the only way we can make this work is by setting the academic bar high, but not beyond reach, and then providing the necessary support and motivation. If I had to establish a marketing campaign around this idea, it would sound like the Home Depot slogan: You can do it (succeed in a demanding course) and we can help (by providing a supportive and instructionally diverse environment).
(Cox, 2011, p. 6)

Readers, who are interested in detailed response patterns among the various demographic groups included in this study, or in the authors' specific recommendations for strategies that might be employed by instructors, advisors and administrators to address the issues raised here, are encouraged to communicate with one of the authors or visit our website: www.abourcherif.com.

It Is Your Turn!
What have you been doing in motivating your students in our own classes?

Recommendations

Motivation:

Research has shown that increased motivation in students leads to improvement in cognitive and behavioral engagement, ultimately resulting in conceptual understanding (Pickens & Eick 2009). There are many of things that institutions and instructors can do to help motivate students thereby increasing their understanding and chance of success.

1: Support Systems

Colleges and universities can create support systems to help guide those students who might not know what to do when they start falling behind and feel ready to give up. This can be achieved by helping them to understand the value of education, why they need to be here, and how their life would be better off if they succeeded in school. This approach not only motivates students but it also empowers them to be in control of their education. In every institution there should be a plan based on best practices for helping students stay on the path to success. Rather than wait until students' grades are posted or students drop out, colleges and universities must develop and implement an early warning system to reach out to students early and more often using, for example, tools that will alert key staff automatically when students start slipping (i.e. not completing coursework on time, failing tests, or missing classes).

Many colleges and universities have started to offer programs to help students' success in college. Programs such as "Navigate to Career", "Navigate to College", "Navigate to Nursing", "Passport-2-College", "Let Us Start Together", "Ensuring Success At College", "Your Path to Success", " College Success", "Your Path -2-Professional Career", etc. are a few examples of these programs. Colleges which offer these types of programs should communicate with each other, share their experiences of what worked and what didn't work, etc. and make their collaborative work and outcomes public knowledge.

2: Motivational Strategies in the Classroom

Colleges in general and instructors in particular must have a vision, plan, and specific motivational strategies that could be used to enhance students' motivation to learn. For example, in studies conducted by Pickens (2007) and Pickens and Eick (2009), the authors show how teachers can effectively motivate their students in learning and conducting academic work by following various approaches, including:

> *Questioning students to engage them in the lesson, exhibiting enthusiasm in lesson presentations, promoting a non-threatening class environment, incorporating hands-on activities to help learn the lesson concepts, using a variety of activities, believing that students can achieve, and building caring relationships in the classroom...encouraging student-student dialogue, making lessons relevant using practical applications, building student self-confidence, and using hands-on inquiry activities. (Pickens, 2007, p. vi).*

The two studies concluded that teachers who incorporate motivational strategies such as these into their classrooms regardless of what type of students they have will likely increase motivation and also enhance learning for all students (Pickens, 2007; Pickens and Eick, 2009). While student motivation is a significant challenge that has been encountered by virtually all teachers and at all educational levels, Pickens and Eick (2009) suggest the use of motivational strategies that allow students to engage in achievement-oriented goal behaviors that lead to success in school.

Study Habits:

Many students are not able to keep up with the work load in college. This may be due to the fact that students just don't know *how* to study. There are certain things institutions and instructors can do to ensure that all students have a chance to succeed starting from the very first day.

1: Take Minimum Number of Courses and Monitor Attendance

Freshman students should not take more than the minimum required courses needed to be considered full-time students until they become accustomed to college work. This will prevent them from becoming overwhelmed and unable to devote the necessary time to their studies. This way, we help eliminate one of the initial potential factors that might contribute to student failure. In addition, there should be a mechanism for monitoring attendance and rewarding students for attending classes. It is important that students see the connection between good attendance and self-discipline, and improved performance.

2: Teach Study Skills

Since college work requires much more time and effort than high school-level work, and since all instructors want to see their students succeed, instructors should teach students how to

study. "Even though study skills development may not be among the learning objectives for [an instructor's] given teaching courses, their effort to emphasize the importance of and to provide resources to help their students develop better study skills will be reflected in improved student performance and satisfaction" (Tennen and Hagar 2011, ¶. 16).

3: New Student Orientation

New student orientation should be mandatory for every student, with options to do orientation online or half-day in order to reach all students. It should be organized into three sections: college-wide orientation, department orientation, and college life and community orientation. Have successful students be an active part of the new student's orientation by having them talk with new students about, for example, the number of hours they must spend per day studying and how to study for a given course or major within the college to succeed. The same can be done by students to show other students where and how to get resources, IT assistance, financial advice, career counseling, academic tutoring, etc.

Academic Preparedness:

Managing a classroom with a range of academic abilities is not an easy task; it requires that instructors develop and implement learning activities that maximize students' learning potential. In this kind of learning environment, all students, despite their background and level of preparedness for college, can succeed.

1: Allow Students to Learn at Their Own Pace

Faculty and institutions need to design and provide actionable tips throughout their courses and programs to help students better identify and respond to their unique academic gaps and capabilities. In doing this, we should create an outlet for students to have the opportunity to learn at their own pace and time availability. Technology, when used correctly, can empower students and help them to learn at their own pace and time availability. To achieve this, colleges and instructors need to embrace a model of instruction which allows students to learn at their own pace and allows teachers to spend more time mentoring and addressing the academic needs of individual students. It has been said that active teaching and learning plus "guide on the side" yields the highest retention of learning among students.

Therefore, college campuses, including classrooms, libraries, auditoriums, cafeterias, intimate collaborative spaces, etc., must be equipped to support the most seamless use of integrated technologies so instructors can focus on meeting individual students' needs when and where ever they occur. For example, in an "Instant-Replay" fashion, every lecture is recorded and made available for the students immediately after a given instructor finishes lecturing. To achieve this, room-based lecture capture technology should be used not just for recording lecture material, but also for webcasting interviews with news media, faculty panel discussions, guest lectures and other special learning opportunities. We know that integrating lecture capture with existing technology infrastructure is not an easy task, but it is a good way to help

students become interested and motivated, catch-up on what they miss, and correct their information, etc. Colleges and universities should learn from the experiences of institutions that are already doing this such as the University of Michigan Ross School of Business.

External Factors:

Many students want to succeed, but are held back because of external factors including the cost of education, family matters, illness, need to work. However, institutions can provide flexible teaching options for those non-traditional students.

1: Blended Learning

Because of the cost of education which has been continuing to increase year after year, more students are forced into the workplace. While this might be a good thing, many students are unable to hold down a job while still successfully pursuing an education. Students in this circumstance can benefit from taking blended courses or online courses instead of regular face-to-face courses when needed. Blended courses might offer the greatest chance for working students to succeed in a course, especially for the new tech-savvy generation of students. In addition, online courses offer another alternative for students when they aren't physically able to spend enough time in the college classroom.

Students Attitudes:

Dawna Markova (1992) argued that it is not the lack of ability but the lack of willingness to persevere in working hard that prevents many students from succeeding. From the results of this study, it seems that most of the participants would agree with Markova. If a student does not possess a positive attitude toward learning, then s/he will be unwilling to persevere. Markova puts the responsibility on instructors to address this unwillingness that is present in so many students.

1: Focus on Changing Attitudes

As instructors, faculty should keep in mind that in addition to all the other course objectives, they must also try to make a positive change in their students' attitudes toward the subject they teach as one of the important consequences of instruction. In order for them to be able to do so, the instructors themselves need to believe that a positive correlation between attitude and achievement not only exists, but also can be achieved by formal instructional means (Movahedzadeh 2011; Russell and Hollander 1975).

This of course requires a change in the mind-set of many college instructors who believe that there primary focus is on increasing the students' knowledge of the subject rather than increasing their favorable attitudes toward it. Many such instructors assume that students will naturally acquire positive attitudes toward science, for example, as they learn more about it.

However, there is no evidence in literature that this is the case. Indeed, and as an example, a study by Garcia and McFeeley (1978) found that the positive attitudes of students toward biology in eighteen introductory biology courses at East Texas State University decreased by the end of the term. This means that it is not only what we teach but also how we teach that requires important considerations in how to improve student success (Moore 1989).

2: Set High Expectations

Expectations matter. The core issue of solving the matter of student's failure and success is one's belief in the value of education as a gateway for a better life and career. Cognitive psychologists indicated that "behavior is a function of how much one values a particular outcome and one's expectation of obtaining that outcome as a result of performing that behavior"(Ali, 2000, p. 215). Therefore, we should emphasize the importance of setting individuals' expectations as the path for marching toward success.

Low expectations are associated with lack of real caring. While unreasonable expectations are not advised because it leads to negative attitude among the students toward the instructor, low expectations will not help students care about their school work and will encourage them to do the minimum amount of work possible — just what is needed to meet the low expectations set by the instructor. Thus an instructor with low expectations of his or her students creates students who do the very minimum to meet those expectations; this turns into a bad attitude about education that becomes difficult to change. Instructors must challenge their students and establish reasonable expectations. At the same time, students must also challenge their instructors and the instructors must accept the challenges to meet the needs of every student in their classroom.

3: "Growth" Mindset

The renowned psychologist Carol Dweck (2012) has distinguished between two types of students' mindsets in the classroom: a "growth mindset" and "fixed mindset". She has argued that faculty should promote a "growth mindset" rather than a "fixed mindset" in the classroom. Through her intensive research on cognitive development to improve student motivation and engagement, Dr. Dweck has found that "students who believe intelligence is a fixed quality are more likely to avoid challenging tasks, while students who believe intelligence can be developed with effort tend to be more successful" (Dweck, 2012). Thus, instructors should encourage this "growth" mindset by showing students that effort is valued more than (or at least equally to) outcomes.

Instruction, Instructor, and Instructional Materials

Whether our goal is to build students' memory, improve their understanding, enhance their mastery of learned concepts, or learn how to learn, we need to explore ways to get to know our students better and then try to transform our instructional materials,

teaching approaches, and classroom environment to help students learn the intended subject matter.

1: Teach to Different Learning Styles

Most educational researchers agree that individuals have different learning styles and that an individual modality of learning is not equally effective for all learners (Sims and Sims, 1995). Therefore, instructors must be aware of how individual differences play a role in the ways in which students learn. They must also be aware of the manner in which their students learn (learning styles and study habits) and try to design their course materials and learning strategies to use multiple teaching approaches to meet as many of the students' learning styles as possible. Learning style is generally accepted to be a student's existing learning strength or preferred manner of learning (Kaplan and Kies, 1995).

Carl Wieman, Nobel laureate and science advisor to President Obama, has recently completed a study comparing a traditional section of a physics class with an interactive multimedia section, which concludes that "it's really what is going on in the students' minds rather than who is instructing them. This (technology-mediated instruction) is a clearly more effective tool for student learning. Everybody should be doing this…" Another conclusion of the study is that the manner in which the material is presented is critical, not just how it is delivered (Wieman, 2011).

It might not be easy and may seem overly time consuming, but at the beginning of the semester, instructors should try to find out what type of learning styles exist among their students. For example, some students may be visual (seeing) learners, auditory (hearing) learners, or tactile (doing) learners. Knowing this information will help instructors diversify their teaching materials to meet their students' learning needs. One successful approach includes giving students a simple survey on the first day of class that allows them to assess their own learning style. This then provides instructors with a general idea of what type of students they have in the classroom. Instructors can use this information to adapt their learning materials and teaching approaches and strategies. One effective example that we came across is in Lori K. Garrett's (2013) book "Get Ready for A&P" pages 4-6. It is called, "Time To Try: Let's Uncover Your Learning Style."

2: Use Students' Experiences

Many educators agree that effective teaching helps students to think critically, communicate effectively, learn self-discipline, develop an understanding of the self and others, and cultivates the perpetuation of self-education (Cherif & Adams 1993). Teaching methods that use students' experiences can help generate enthusiasm for active involvement in the learning process. Successful pedagogical approaches such as these move aggressively forward from teacher-centered learning to student-centered learning to self-centered learning. In doing so, we are really not only helping students to

learn, but we are also guiding them to become mature responsible learners. This means purposely moving from pedagogy to andragogy regardless of the ages of the students. At that same time, we need to also move aggressively, but in an integrative fashion from subject-centered tasks to problem-centered tasks.

3: Use Technology to Provide Detailed Instruction

Today's students are characterized as being technologically savvy and feel more comfortable within a technology-based learning environment. Therefore we need to take a hard look at our educational system and how we have been delivering learning materials to students. We as faculty need to provide detailed instruction in what we want the students to learn and how to learn it and then we can hold them responsible for learning it. Technology can help in this matter.

Institutions and instructors need to create learning environments that allow students to seamlessly move back and forth from the physical classroom to the virtual classroom; from reading and doing things on paper and on lab desks to doing the same in the digital world. This requires creating learning materials and approaches that integrate text and technology in a dynamically fluid learning environment in which students are able to access online applications for a deeper, lasting understanding of core concepts and principles, and self-assessment instruments that reliably track students' progress and performance and provide instant feedback to students for constructive improvement. We need to harness available and emerging technologies to help students achieve steady improvement in their academic performance, including attendance, test scores, satisfaction, retention, and graduation rates.

Today, there is no longer only one textbook way to learn. Many publishing companies have revolutionized the idea of the textbook as we know it. For example, ELSEVIER publishing company came up with digital books on Pageburst which help making learning more enjoyable and relevant for students while making the teaching process much easier for instructors. In a matter of a few seconds, with Pageburst digital textbooks, instructors can: share notes and highlights with students and colleagues; run quick topic searches in one book or across multiple books; cross-reference materials with dictionaries and, for example, drug guides; directly link to text, tables, and figures to enliven lectures; and instantly access, for example, an entire health science library online, offline, and on mobile devices.

Relevancy Issues

When students don't see the relevancy of their course work to their lives or careers, they become disinterested and unmotivated; this may lead to failure of that course. It has become very important that instructors establish a teaching relationship with students that makes academic learning relevant to their lives and potential careers (Rosebrough and Leverett, 2011).

1: Teach with Relevancy in Mind

When instructors design their learning materials and teaching strategies with relevancy for students in mind, they are in fact transforming their pedagogical instruction into a learner-centered approach.

> *We are under so much pressure to cover every single learning target in the curriculum that we rarely get to discuss why students should know what we're teaching or how they can put it to use in their lives. And yes, it's important to connect the knowledge and skill set they're learning to potential careers. But not all students are in in touch with their own career possibilities or can even think that far ahead. Therefore, whether you connect your students to the school community, a local business or nonprofit organization, or other entities within your area, reaching out beyond the four walls of the classroom may be what it takes to motivate students to participate in their own education and to help them imagine their own futures. (Kuntz, 2012, p.3)*

Unlike mature students who are able to realize the benefit of hard work in achieving success in college work, many young students don't realize that success in college demands a great deal of hard work. Faculty and institutions need to help students establish a relationship between college work and their personal goals. This is very important especially among students who perceive that the freedom away from home and high school means they get to do what they were not allowed to do before, including the pursuit of pleasure and fun which are very strong among young students. Without seeing the big picture and the relationship of college work to their personal goals and objectives, students will perceive college work as difficult and meaningless.

> *One of the signs of maturity is the ability to delay immediate pleasure and look at long-range goals. These goals do not have to be specifically defined, but they must be one's own. A student must have a sense of working toward a goal or reward that he or she really wants, whether it is the pleasure of a good grade, a still undefined career, or status and security. (CAS 2012, ¶. 4)*

2: Use a Constructivist Approach

It is important not to ignore students' prior knowledge and beliefs. Ignoring students' prior knowledge makes it highly probable that the message intended by the instructor will not be the message understood by the student (Etkina and Mestre, 2004). As Pickens and Eick (2009) point out, "too many students [for example] enter the science classroom with preconceived ideas that the subject is boring and irrelevant to their world" (p.390). Instructors should consider adopting a constructivist approach to teaching. According to the theories of constructivism, learning is an active and constructive process; learners not only construct knowledge, but the knowledge they already possess affects their ability to gain new knowledge. Instructors should get to know their students and assess what they already know or what their

attitudes are towards a certain subject in order to help them reconstruct their knowledge. This will also help the instructor decide how to teach certain topics or concepts, keeping in mind his/her students' prior knowledge.

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