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Why Do Students Fail?

Inspiring and Motivating Students in Taking a Charge of Their Own Education?

About H. Cherif, Ph.D

*DeVry University
Downers Grove, Illinois*



Farah Movahedzadeh, Ph.D

*Harold Washington College
Chicago, Illinois*



Why Do Students Fail?

Inspiring and Motivating Students in Taking a Charge of Their Own Education?

At high school level, “Over **7,000** students drop out every day in the U.S. -- **1.3 million annually** -- greatly increasing their chances of being unemployed, on government assistance, or going to prison”. (Esposito, 2014)

At the college level, in the United States alone more than **370,000** students fail and drop out of college every year for various reasons.

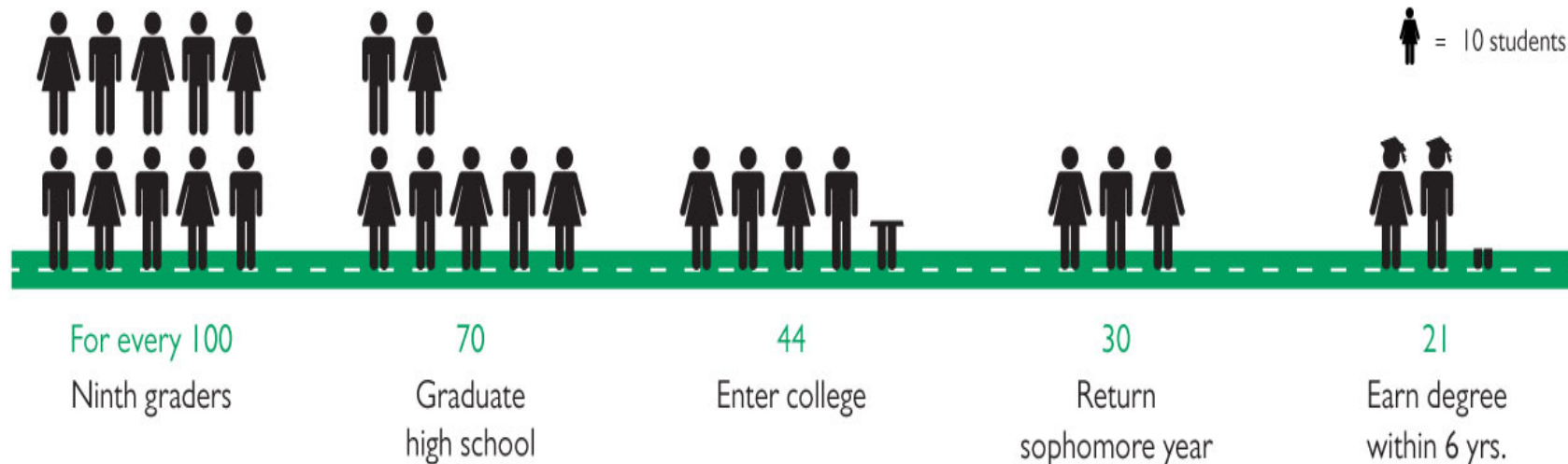


Today's Students

50% of those seeking an associate degree require remediation
20.7% of those seeking a bachelor degree require remediation



WHAT IS THE SITUATION AROUND COLLEGE READINESS IN THE UNITED STATES?



Only 21 out of each 100 ninth graders earn college degree within 6 years!

Source: College Board (2012-2013). *Ensuring College Readiness for All Students*. Retrieved from <http://media.collegeboard.com/homeOrg/content/pdf/K12ResourceGuide2012.pdf>

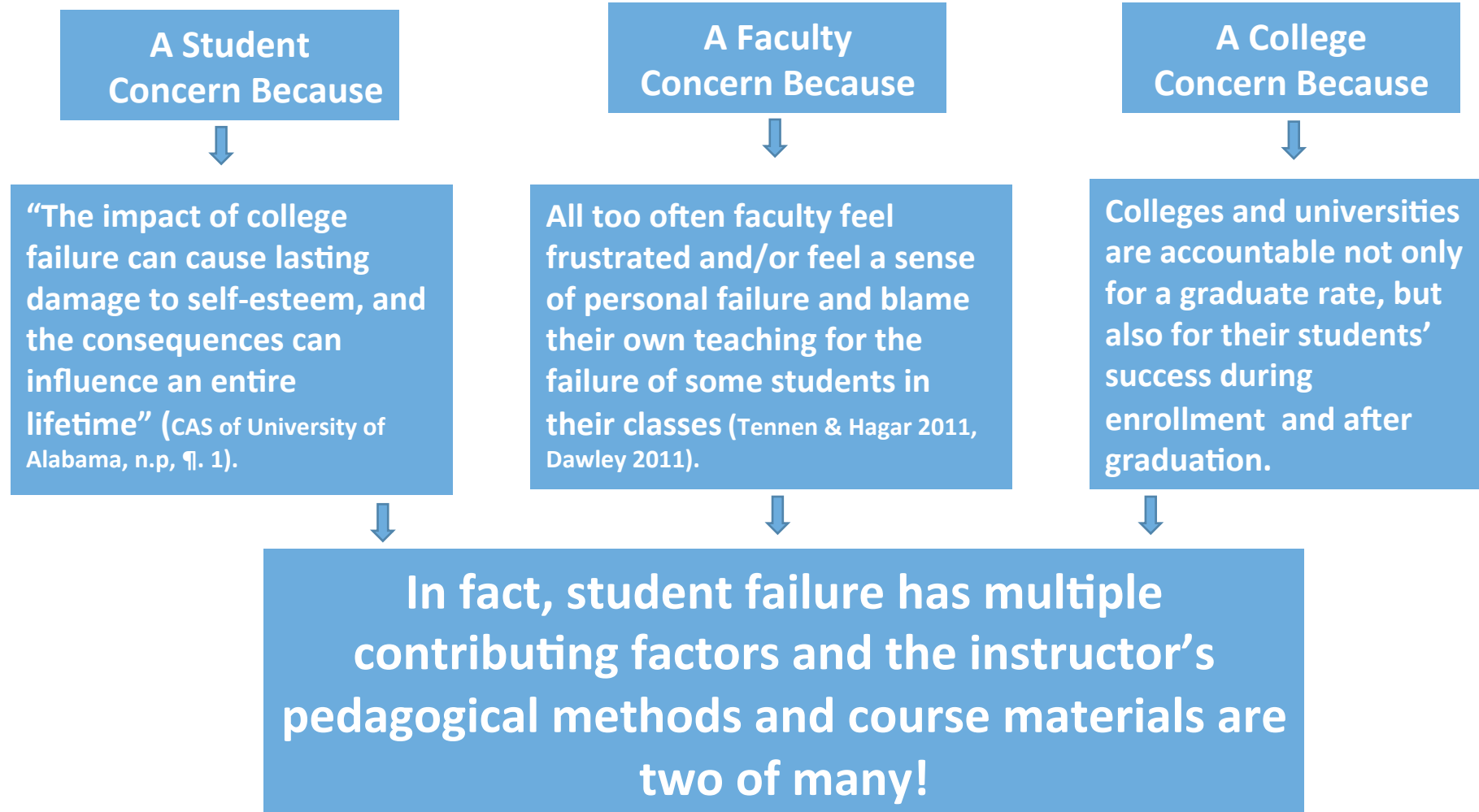
The State of College & Career Readiness - Part I Infographic Copyright © 2013 by Pearson, 2013. All rights reserved.

ALWAYS LEARNING

PEARSON

<http://edcetera.rafter.com/pearson-on-college-readiness-infographic/>

Students Failing and Dropping Out of College Are:



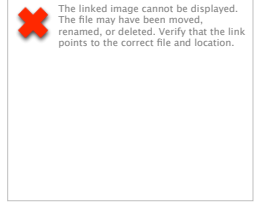
(CAS of University of Alabama, n.p, ¶. 1; NCES 2009)

Because of this

In the last five years we have conducted and presented the outcomes of research on why students fail from the stakeholders' perspectives (students, faculty, and academic leaders independently).

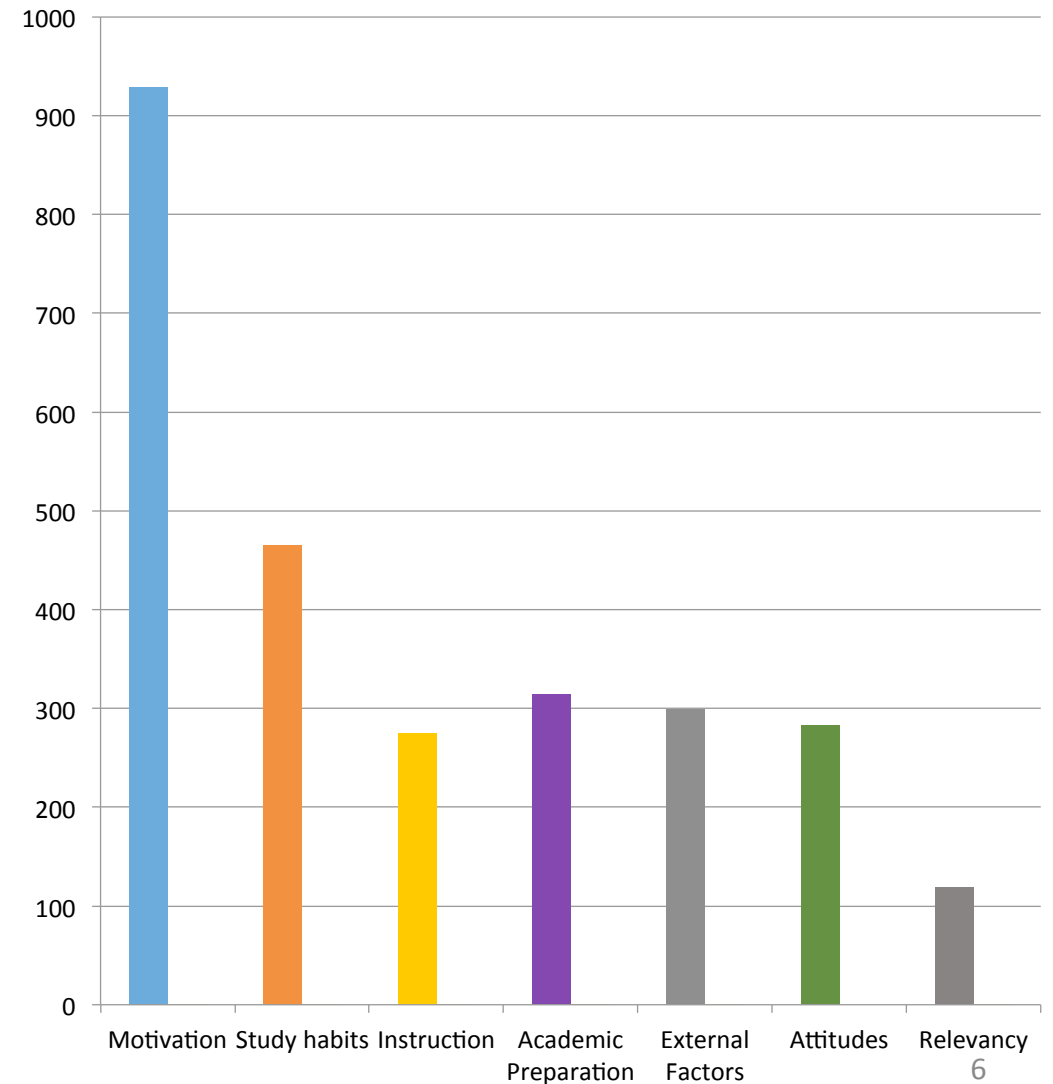
In those three separate studies, the stakeholders provided us with many reasons for students failing courses and colleges.

2013 Study – Student’s Perspectives



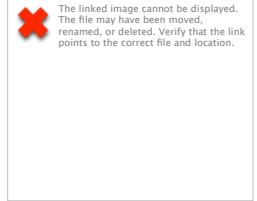
Participants identified 7 categories as the root-cause factors for students failing college courses.

	Category	Total	
I	Motivation	929	35%
II	Study habits	465	17%
III	Instruction	275	10%
IV	Academic Preparedness	314	12%
V	External Factors	299	11%
VI	Attitudes	283	11%
VII	Relevancy	119	4%
	Total	2684	100%



2014 Study – Faculty Perspectives

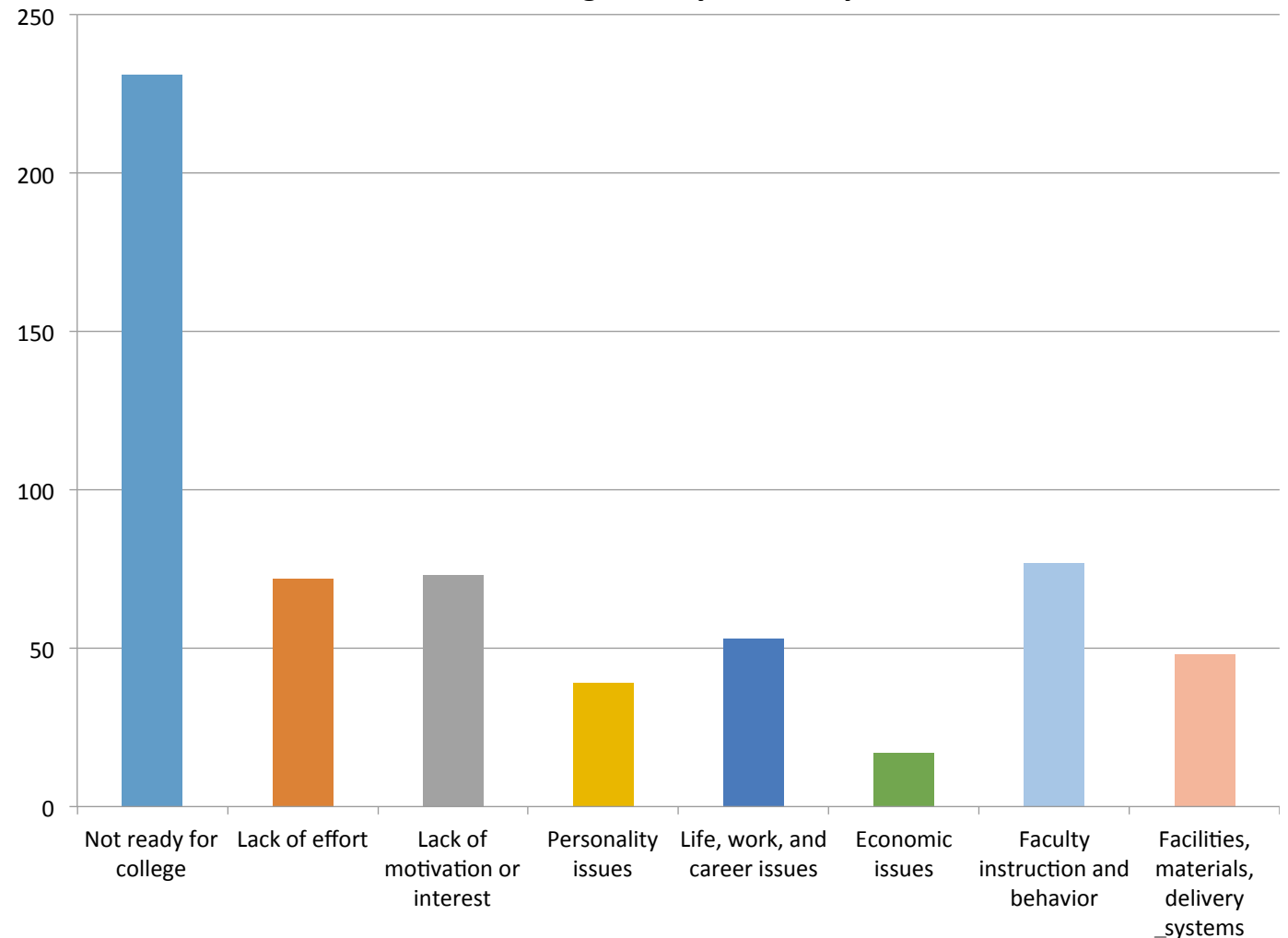
<http://cop.hlcommission.org/Learning-Environments/cherif.html>



Participants identified 8 categories as the root-cause factors for students failing college courses.

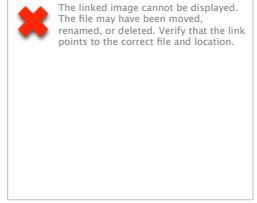
Categories	4-Year Level	
Not Ready for College	231	38%
Lack of Effort	72	12%
Lack of Motivation or Interest	73	12%
Personality Issues	39	6%
Life, Work, and Career Issues	53	9%
Economic Issues	17	3%
Faculty Instruction and Behavior	77	12%
Facilities, Materials, Delivery Systems	48	8%
Total	610	100%

Identified categories by all faculty



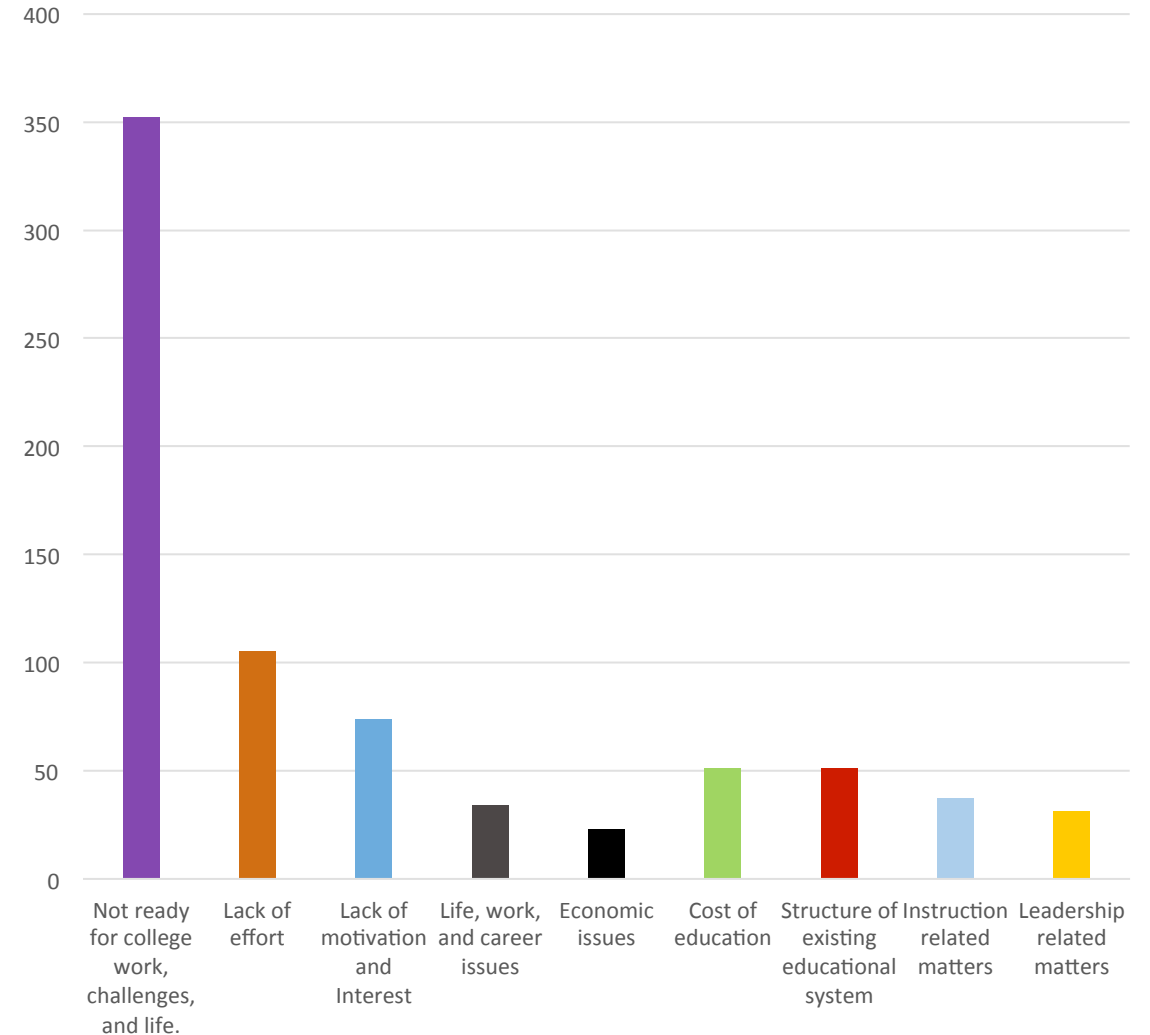
In 2015 Study: Academic Leaders Perspectives

<http://cop.hlcommission.org/Teaching-and-Learning/cherif15.html>



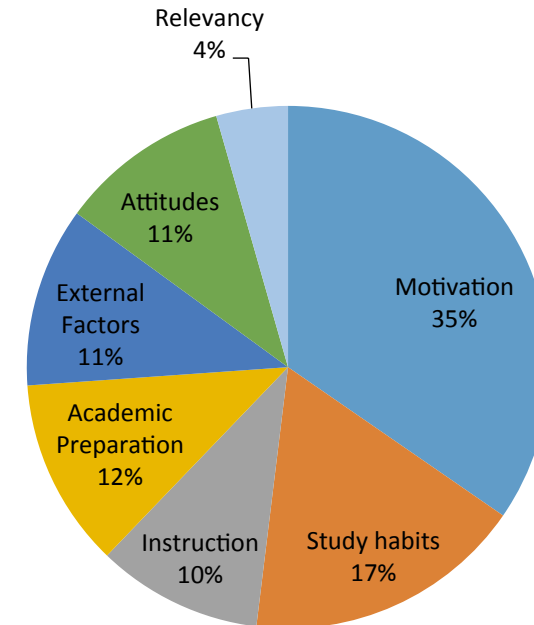
Participants identified 9 categories as the root-cause factors for students failing college courses.

General Categories	Rank by Number of Respondents (758)	
	Times mentioned	Percentage
Not ready for college work, challenges, and life.	352	46%
Lack of effort	105	14%
Lack of motivation and Interest	74	10%
Life, work, and career issues	34	4%
Economic issues	23	3%
Cost of education	51	7%
Structure of existing educational system	51	7%
Instruction related matters	37	5%
Leadership related matters	31	4%
Total Number	758	100%



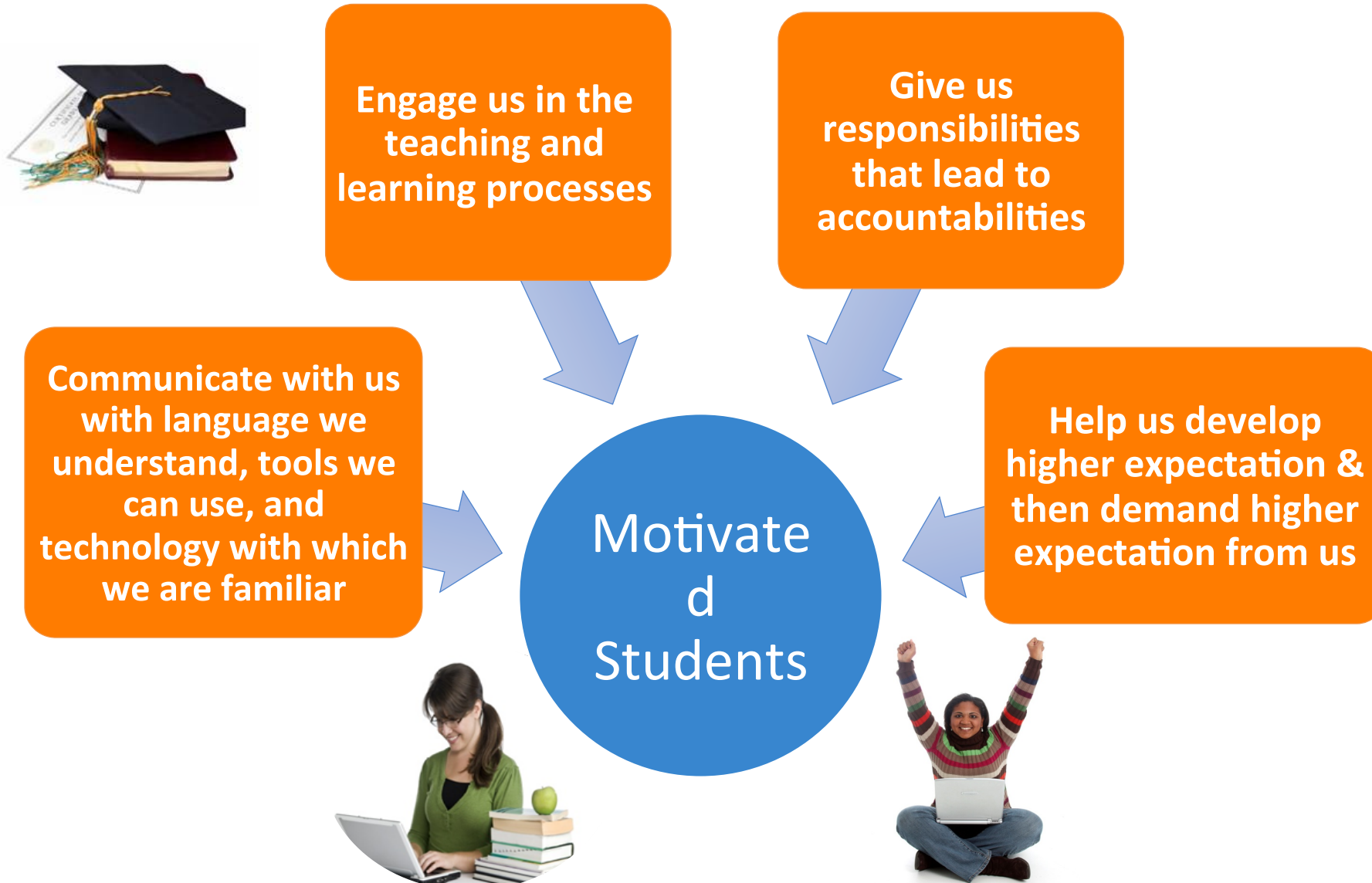
Summary of the Outcomes of the Three Studies

Even though, mentioned as *number one* by students and *number three* by faculty and academic leaders, *lack of motivation and interest* mentioned by the three types of the stakeholders as critical root-cause factor in why students fail courses and college.



With all this in mind, we went back and asked the stakeholders about how we can help students to be motivated.

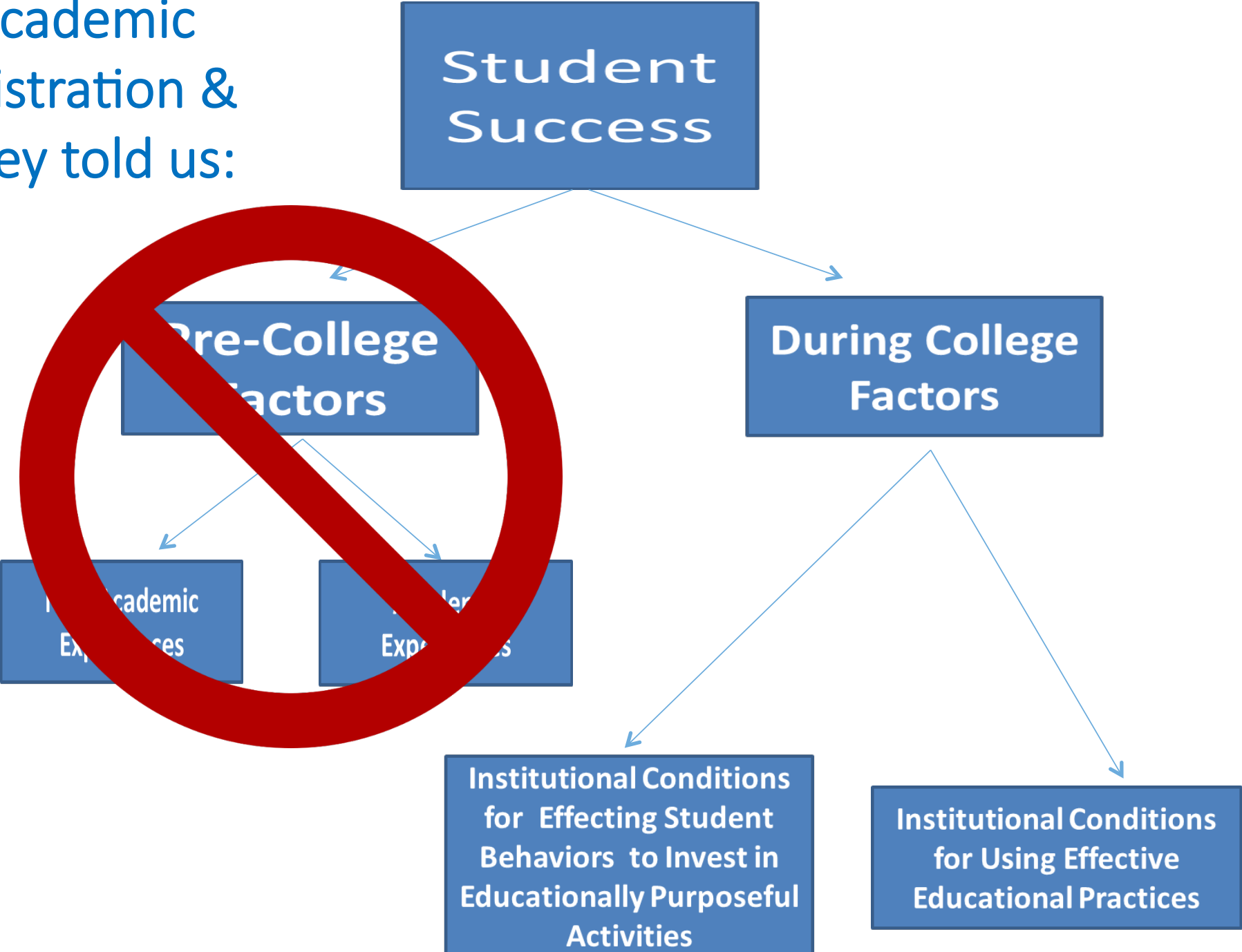
When we asked students to let us know how we can help them to be motivated, they said:



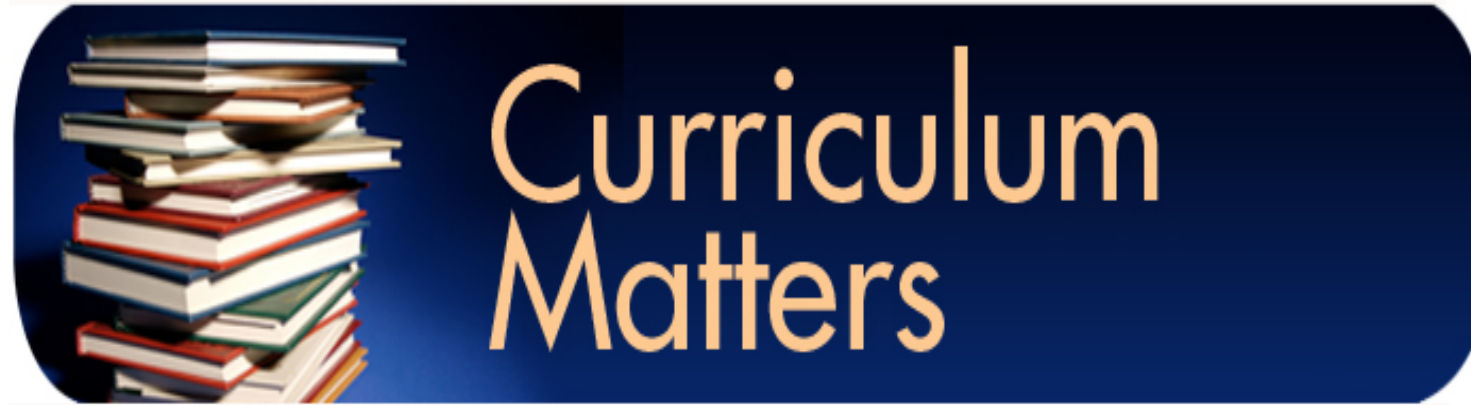
When we asked them how administration & faculty can help, faculty told us:

- Lower teaching loads (credit hours and total student class enrollment).
- Provide more resources.
- Provide technology to facilitate both teaching and learning.
- Provide flexible systems that enable faculty to spend more time with students who need help the most and less with students who don't need more help but only guidance.
- Provide the student's classroom space with computer, tablet, and all the technology with which the student is familiar with, to promote interactive communication and learning.
- **Build a system and provide courses & programs that motivate students to come to class and want to learn. Also we should award students at the end of each academic year a certification that enable them to work and be productive citizen, if they decide to quit school for a while.**

When we asked academic leaders how administration & faculty can help, they told us:



When it comes to Helping Students Succeed in Their College Education



and colleges with their faculty, educators, administrators, and campus environment, can do a lot to help students!



But First, Who Are Today's College Students?

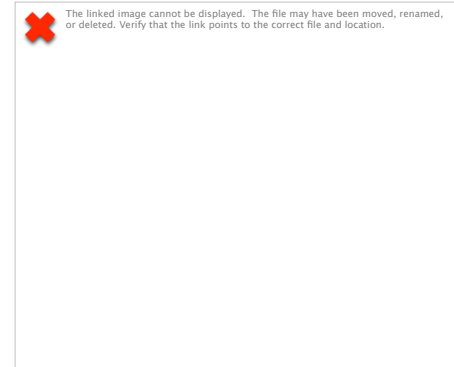
According to U.S. Education Department data:

- *About 40 percent of all college students are older than 25.*
- *More than a third attend classes part-time.*
- *Nearly 20 percent work full-time.*
- *About 60 percent enroll at four-year public and private schools, while the rest mostly attend community colleges or enroll at for-profit colleges.*
- *Very few attend the well-known universities topping the U.S. News and World Report rankings.*

(Johnson, September 14, 2013, ¶, 3).

Today's students have been raised in an age when technology is advancing rapidly. They're constantly exposed to digital media, making them very different from earlier generations of learners when digital technology was less dominant and developed.

Diana Oblinger: <http://jarrettlantor.blogspot.com/2007/10/what-are-characteristics-of-todays.html>



Modern Learners

Today's learners are:

- *“...more visual and kinesthetic than any generation before.”*
- *“... feel comfortable disengaging from something they don't find interesting or relevant...”*
- *“... prefer to work on things that matter so they can make a difference.”*
- *“... very busy, and their learning is constrained by a lack of time.”*

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How Well Do You Know Your Students

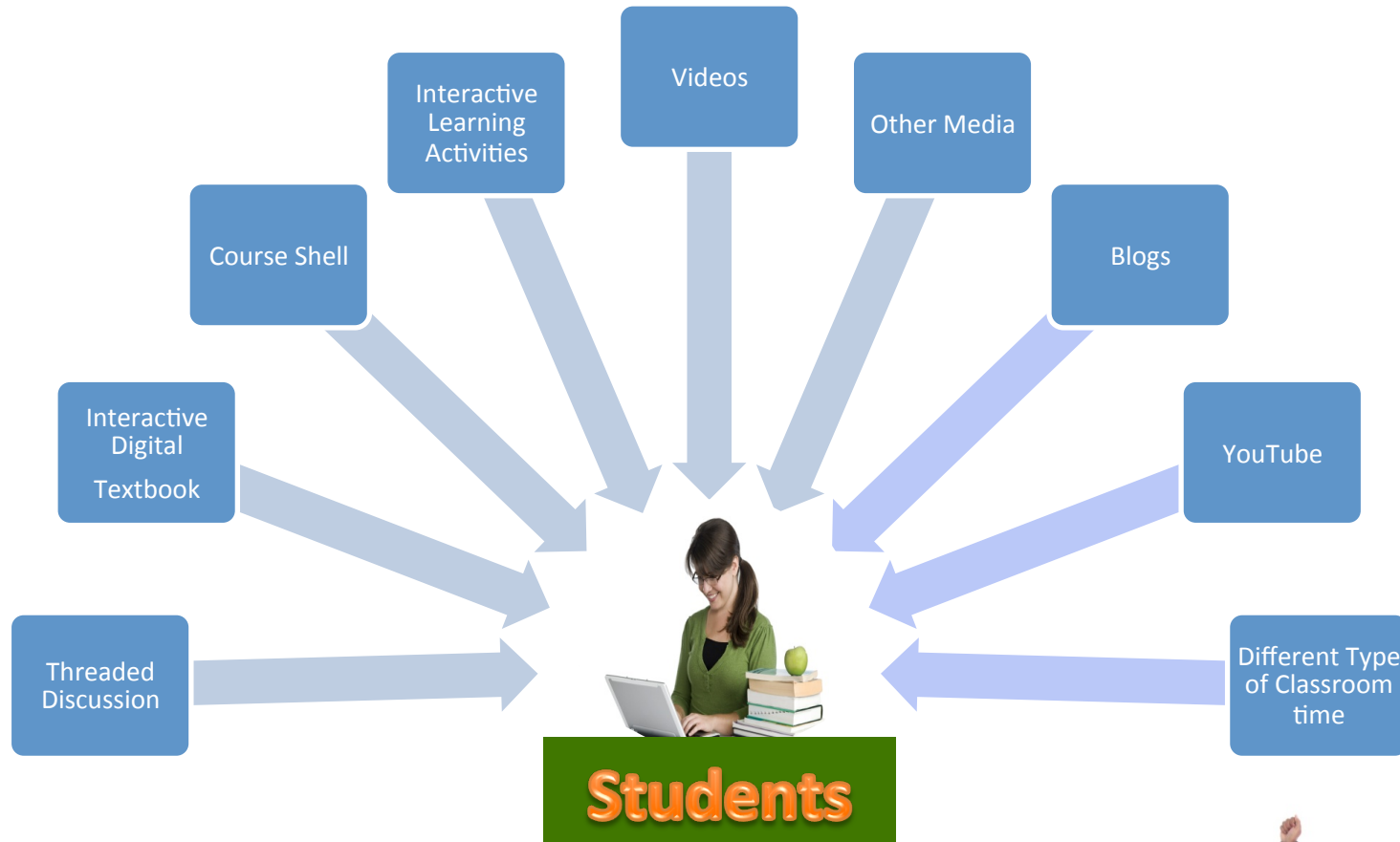
Dawna Markova (1992) wrote: "Our students' educational needs are continuously changing, but our methods of meeting those needs have not been. We have basically been doing what we've always done and getting what we've always gotten" (30). She argued that it is not the lack of ability but the lack of willingness to persevere in working hard that prevents many students from succeeding. This unwillingness stems from the fact that teachers have failed to use students' strengths in helping them overcome their weaknesses. We have failed to provide them with learning opportunities and activities that could help them leverage their native intelligence and their natural curiosity, wonder, compassion, and responsiveness. We have been teaching them the way we were taught and not the way we wanted to be taught.

How Well Do You Know Your Students

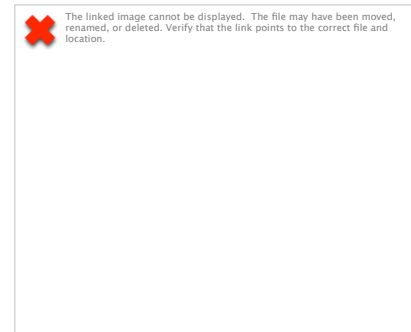
"Beyond knowing them just as students in your classroom, do you know their likes and dislikes? Do you know what they are good at? Do you know what they can and cannot do? Do you know their socioeconomic backgrounds?", etc.

From the early weeks of the semester in all my courses, I ask the students to demonstrate their understanding of a given scientific concept we studied in the course. I tell my students from the beginning: The only thing I am interested in is that you show me that you did understand these scientific concepts. I don't care what means you use, as long as you are able to demonstrate that you understand the given concept. ...

Modern Learners

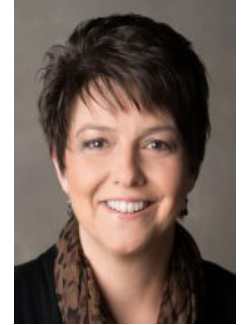


So They Can Have Autonomy to Create Their Own Individual Learning Strategies



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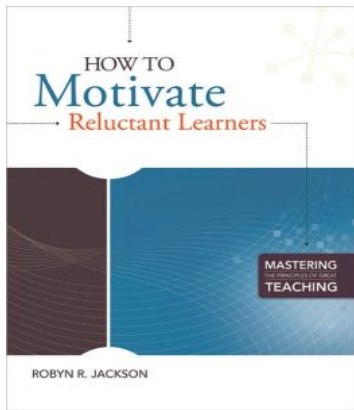
Modern Learners




As Christy Price, a psychologist at Dalton State College, described, ***“Modern learners have a different mind-set about education, but that doesn’t mean they don’t want to learn. They just go about it differently.”*** (Thursday, March 28, 2013)



Price, Christy (2013).
Motivating Students: From Apathetic to Inspired.
Faculty Focus Video Seminar. Online Seminar •
Thursday, March 28, 2013 • 1:00 pm Eastern



Motivating Modern Learners

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In her book *“How To Motivate Reluctant Learners”* Robyn R. Jackson (2011) explained that:

“What we call motivation in school is really a decision students make to invest in our classrooms. It’s our responsibility to show students the value of investment and guide them toward behaviors that will support learning.”

She is asking us to create a classroom learning environment , and learning strategies in which students will invest by removing demotivating practice- and procedure-based barriers and giving students more opportunities for autonomy on how to learn and communicate what they learn to others. But to ensure learning she is also suggesting we should ask for *“specific, meaningful, observable, realistic, worth the effort, and small.”*

Motivating Modern Learners

Starting Right

As Kelsey Metzger, from the Center for Learning Innovation at University of Minnesota Rochester demonstrated in her recent article, “Starting Right: ... at the Beginning of a Course”, (2013), how:

It is not only the *“events that occur on the first day of class can leave a lasting impression on student and affect their **motivation and performance**”*, but also what we do and ask students to do in every class time will shape their careers and future life.

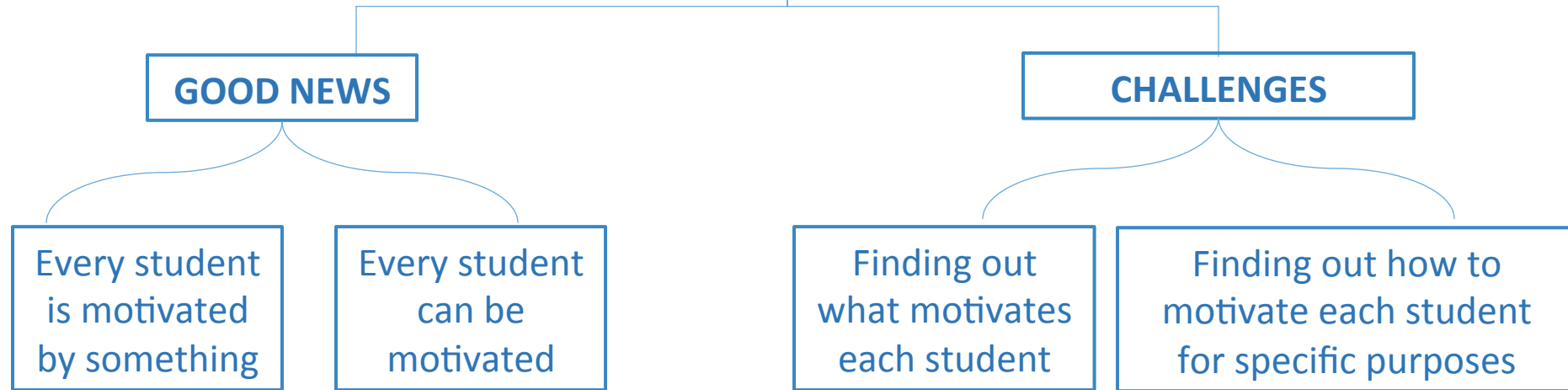
(2013, p.285).



Metzger, Kelsey (2013). Starting Right. The American Biology Teacher, Vol75, No. 4, pp. 285-289.

MOTIVATION:

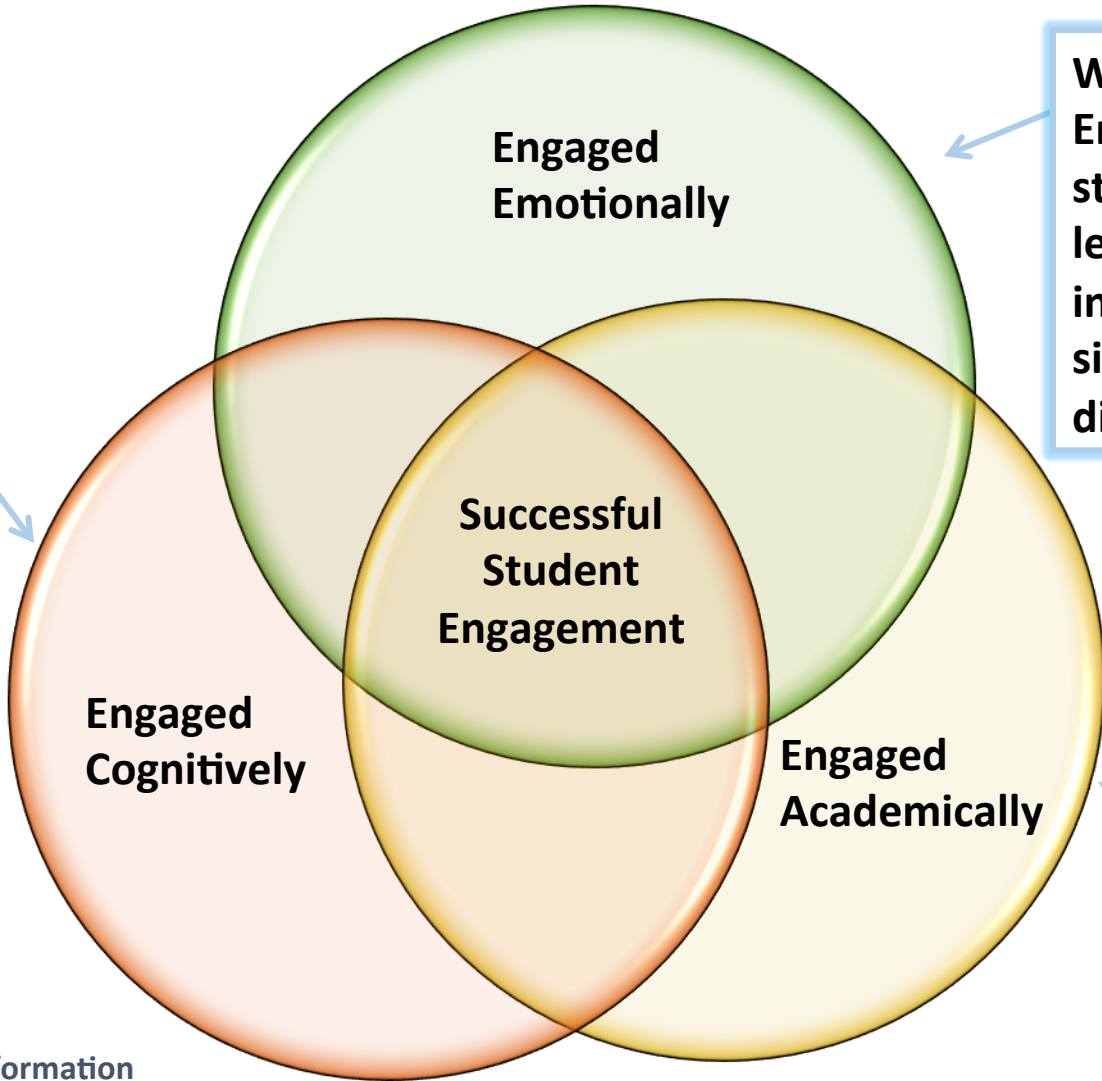
Good News & Challenges



- We know that “*when students are engaged, they are motivated to learn*” (Jackson & Zmude, 2014). How can we secure such engagement?
- The key is to ask students to direct their learning process and provide feedback on our teaching.
- After all, “who better to give us valuable feedback about how well we’re doing than our students” (Perks & Middleton, 2014).

Keys For Student Engagement

Without being Engaged Cognitively, students will not be able to complete academic assignments to their own satisfaction and thus will become emotionally disturbed, and unhappy.



Without being Engaged Emotionally, students will not retain learning and use information after significant periods of disuse.

Without being Engaged Academically, students will not be able to accomplish anything worthwhile educationally or be prepared for careers.

Learning is the ability to use information after significant periods of disuse ... to solve problems that arise in a context different (if only slightly) from the context in which the information was originally taught.

(Robert Bjork, *Memories and Metamemories*, 1994)

Student's Mindset
Looking at student's attitude from brain's perspective

Growth Mindset

Fixed Mindset

Belief Held

Belief Held

I will make it. It is just a matter of time.

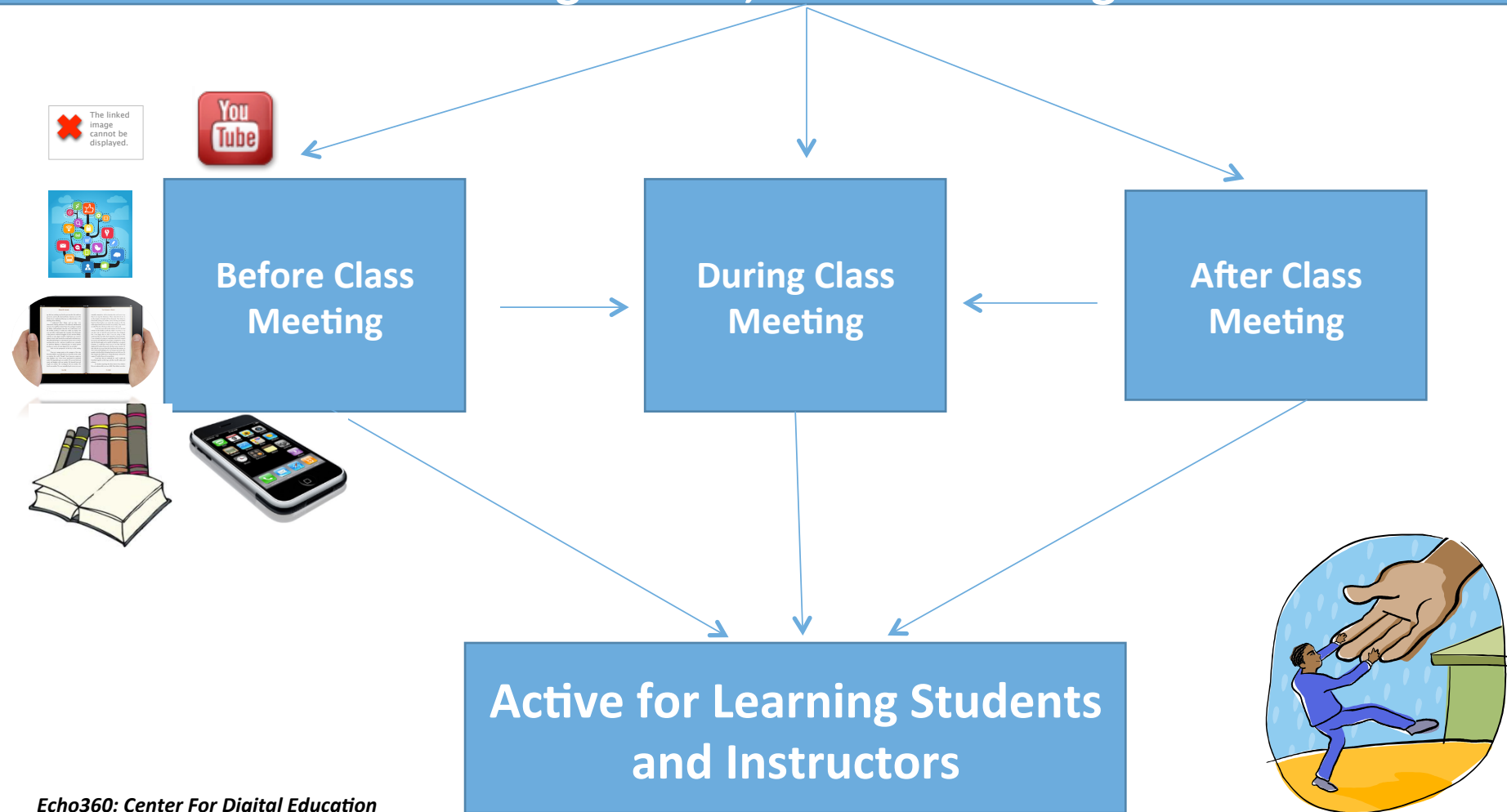
I am not doing it. It is not going to make a difference.

Through practice and effort their abilities can improve.

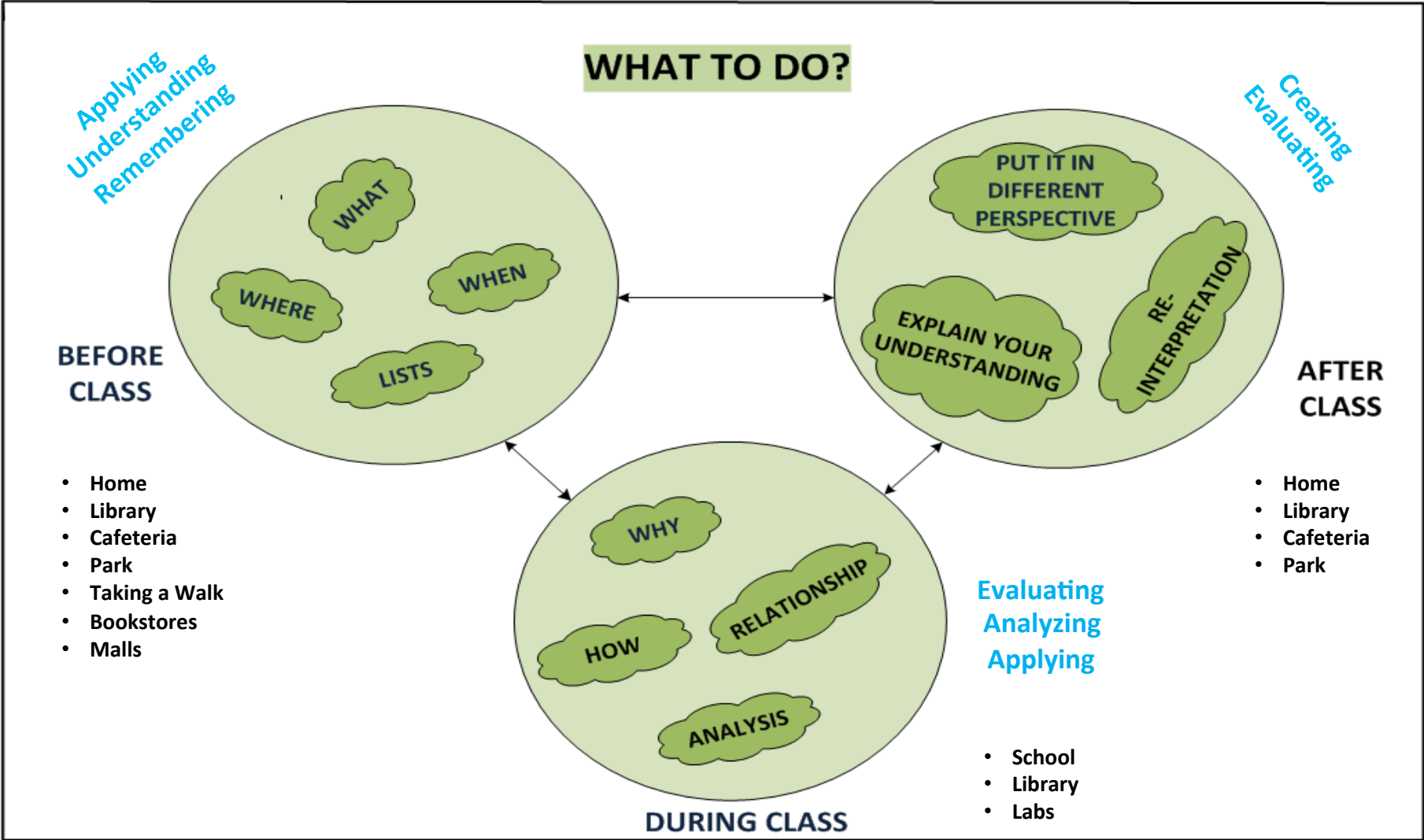
Multiple learning styles need to be used to open the possibilities that working hard is worth it, and it pays to work hard.

Focus on praising student's efforts and learning strategies rather than on their intelligence.

We need to re-structure our courses and the strategies in the way we manage and deliver them. For example, just by giving an equal or greater weight to the “Be Ready for Class” assignments as to the “After Class” homework assignments, we can see a significant difference!



Active learning requires transforming the course, the class and the classroom into a “Center for Active Learning”

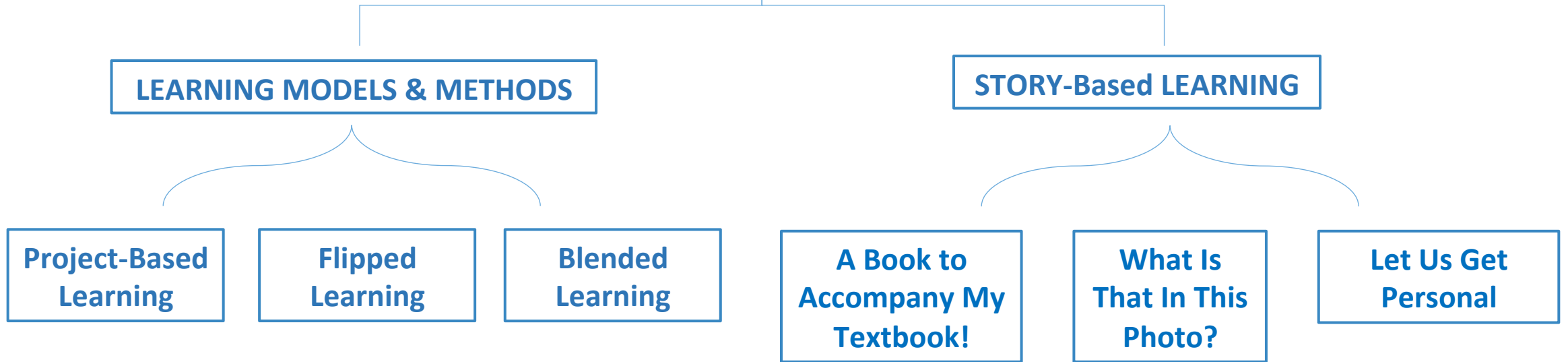


ENGAGING AND ACTIVE LEARNING ENVIRONMENT

Students need a learning environment where they feel safe, comfortable, and supported.

Motivating & Inspiring Students:

Selected Examples for Motivating and Inspiring Students To
Learn



Pedagogically-Structured Driven Approach

Content-Discovery Driven Approach

Motivating & Inspiring Students:

Selected Examples of
Project-Based Learning for Motivating and Inspiring Students To Learn

**Individual-Course
Level**

**Ex: Molecular Biology
Course**

**College
Level**

**Ex: Life in & Around
the Chicago River**

Empower Students through Meaningful Research and Field Experiences, Projects, Service Learning, and Civic Engagement

Although Project-Based Learning (PBL) has been found to be an effective pedagogical approach for learning and a number of studies show that it is a growing trend in education, still ***only about 1% of schools nationwide use project-based learning on a regular, committed basis.*** ([U.S. News & World Report](#)).

Project-Based Learning is “a method in which students engage in intellectually challenging tasks that drive inquiry questions through gaining content knowledge and academic skills to solve complex problems and informatively defend their solutions and outcomes”.

(Movahedzadeh, et al 2012)

Why Is the Project-Based Learning Approach Successful ?

The education advocate and author Tom Vander Ark wrote in one of his blogs that:



*“Among the keys to successful project-based learning are **challenging students to tackle large but specific topics, while setting milestones and schedules to keep them organized.**”*

[How some schools expand on project-based learning ;](#)

[Education Week \(premium article access compliments of EdWeek.org\)/Vander Ark on Innovation blog \(7/26\)](#)

Why is PBL needed for today's students in STEM education and careers?

- Allows students to **work actively** with the applied techniques of the laboratory setting.
- Incorporating **critical thinking, collaboration,** and **problem solving** skills in the context of content-based knowledge that influences comprehension and academic **self-confidence**.
- Granting students **accountability** for laboratory projects.
- Deeper understanding **of how science is practiced by scientists** through problem solving & formulation & testing of a hypothesis-based research.
- **Utilizes both the tactile and visual senses** to create a more complete learning experience, one that proves crucial in promoting the growth of STEM program enrollments.

PBL in a molecular biology course

- Introductory molecular biology course at HWC
 - Experienced **low enrollment & Low retention rate in the past**

Typical introductory molecular biology courses at 2-year colleges:

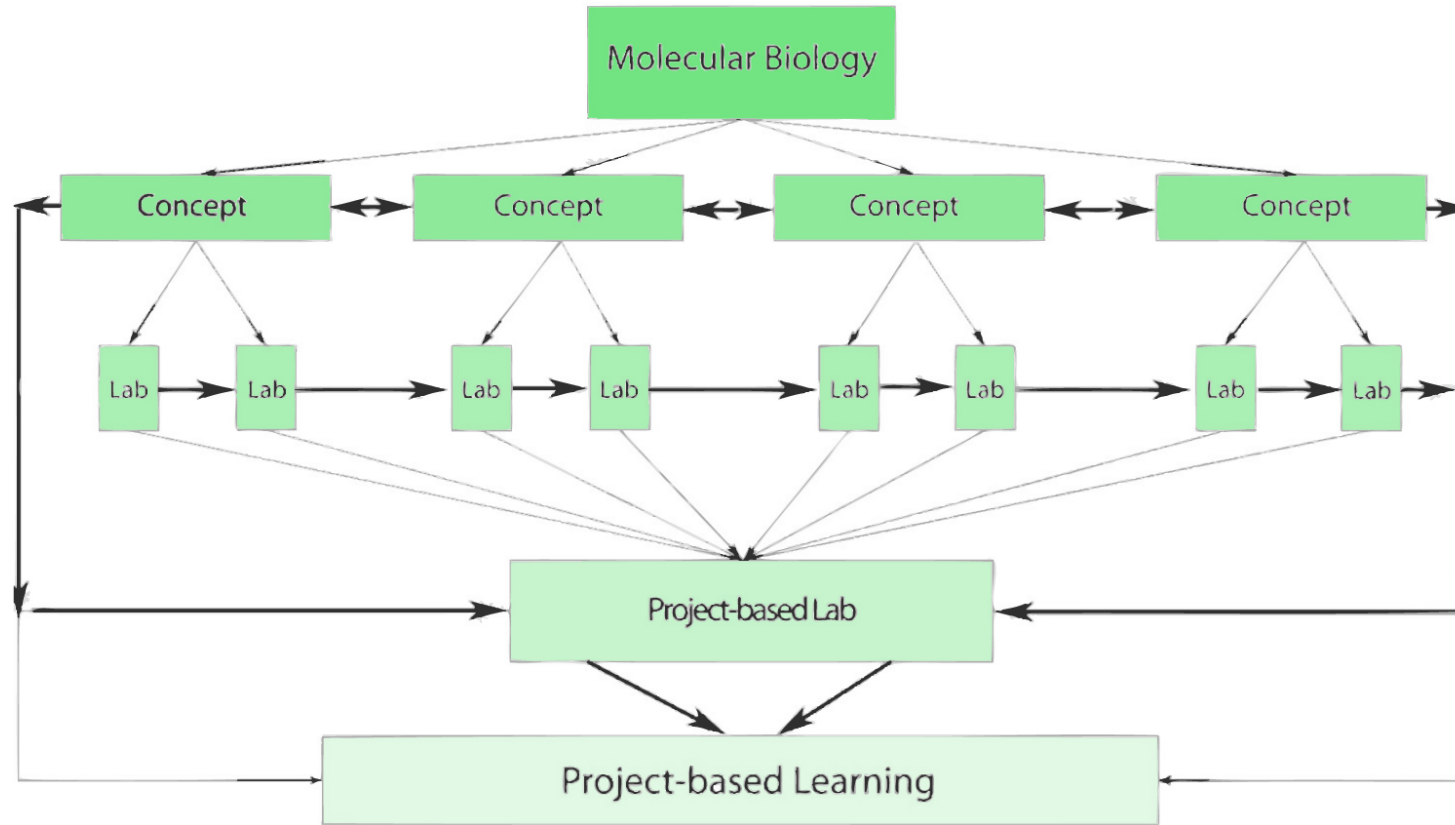
- Often contain a sequence of topic-based lectures and various weekly laboratory assignments.
- The assignment-based labs are often directed by a manual containing a generic set of assignments tailored to introduce several, often unrelated, techniques.
- Although students may enjoy learning new techniques, they fall short in understanding how the individual techniques are applied in professional scientific investigations.

**The connection between the knowledge and the applications
is often not clearly made**

In this presentation, we intend to highlight the experience and the outcomes of **transforming a standard molecular biology course** in a community college into a more effective learning experience using PBL that not only inspired and motivated students to be actively engaged in the course but also to learn and succeed.



Concept Map of Project-based Learning



The concept map of a PBL course and how the various components of this course are related to each other: concepts learned, weekly labs, project-based labs, and how all of these elements lead to Project-based Learning. (Movahedzadeh, et al 2012).

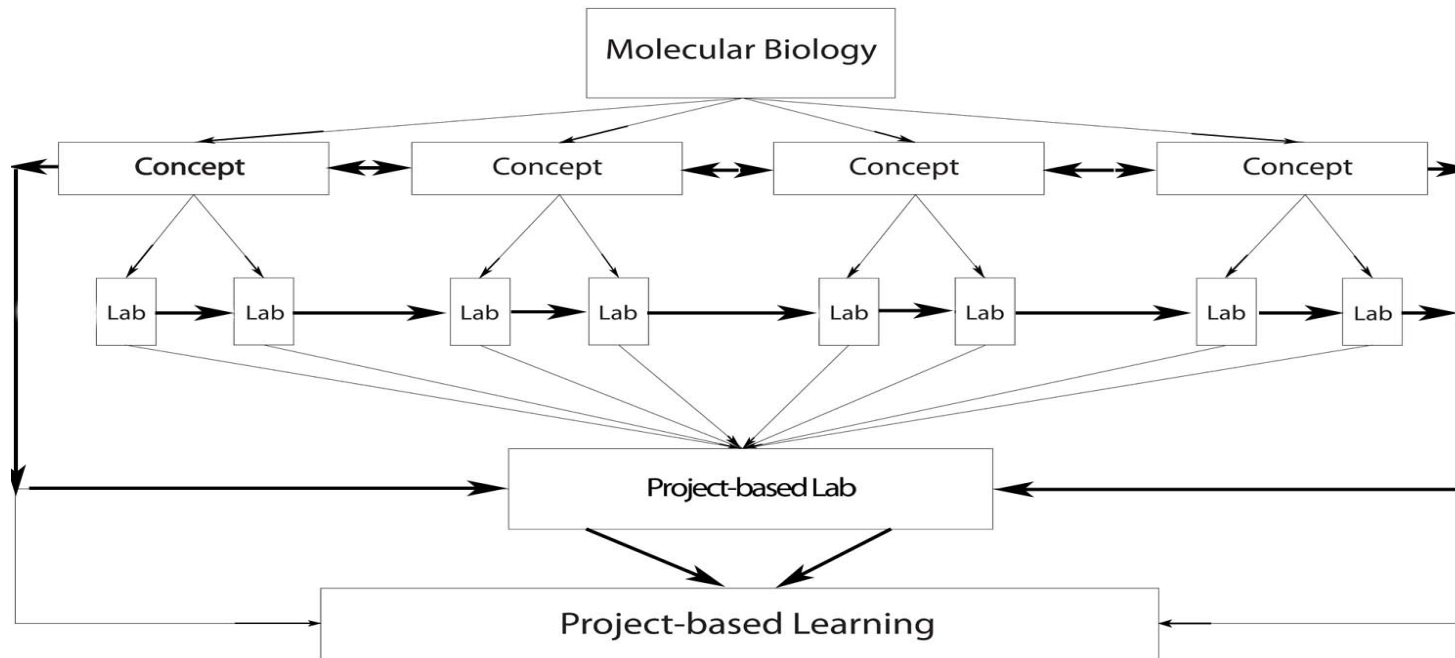
Topics and Concept Learned:

- DNA & RNA structure,
- DNA replication,
- Bacteria and viruses as model organisms,
- Transcription, translation,
- Gene regulation,
- Recombinant DNA technology and
- Molecular cloning,
- Polymerase chain reaction and its applications,
- Tools in molecular cloning:
 - Restriction enzymes,
 - Agarose gel analysis,
 - Usage of plasmids,
- Tools for analyzing gene expression,
- Genetically modified organisms,
- Protein expression, protein purification, and an
- Introduction to bioinformatics

Week	Topic(s) to be covered	Laboratory Assignments
	-Introduction to the course; "The beginning of Molecular Biology" -Scientific methods	Basic lab safety techniques
	DNA & RNA structure, replication	Basic Calculations for preparing solutions of different Concentrations
	Bacteria & Viruses ; Model organisms	Bacterial & Yeast media prep, inoculation, growth
	Transcription, Translation, Gene regulations	Isolation of DNA from Cheek cells preparation of agarose gel
	Recombinant DNA technology and molecular cloning Polymerase Chain Reaction and its applications Exam 1	PCR Agarose gel analysis
	Tools in molecular cloning- Restriction enzymes, Agarose gel analysis	Restriction digestion, Purification, Preparation for Cloning
	Tools in molecular cloning- Usage of plasmids	Ligation & Transformation
	Tools for analyzing gene expression	Isolation of Plasmid, gel electrophoresis & screening for clone
	Genetically modified Organisms	Preparation for gene expression
	DNA to proteins; introduction to proteins Exam 2	Protein induction & expression, purification
	Protein expression	Polyacrylamide gel electrophoresis
	Protein purification	Visit a UIC laboratory
	Introduction to Bioinformatics	Genome analysis
	Medical molecular Biology, Student Presentations,, Review	
	Exam 3	

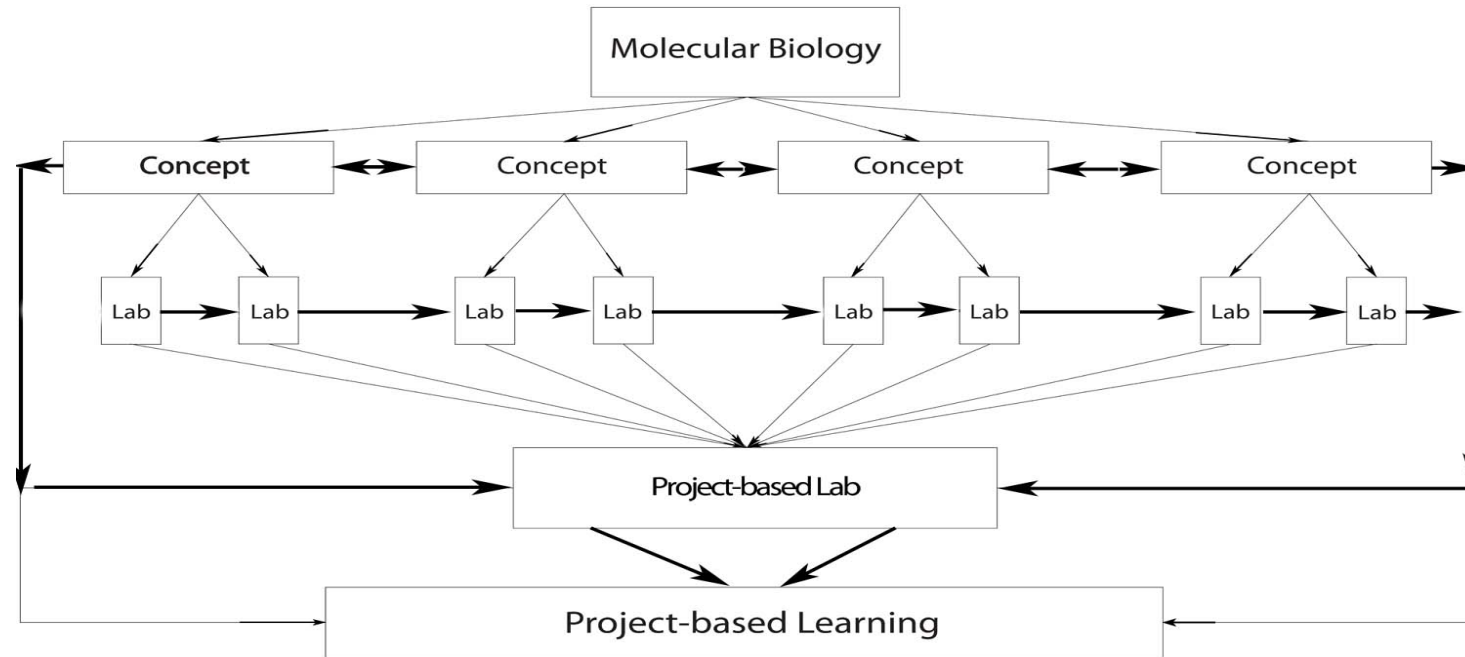
Bio-251 course was redesigned

- To offer hands-on experience that is clearly made to be seen and applied by implementing the **Project-Based Learning model** with a **single term-long group laboratory project**.



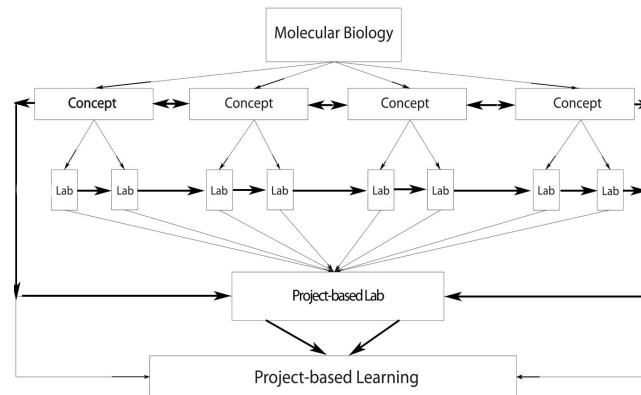
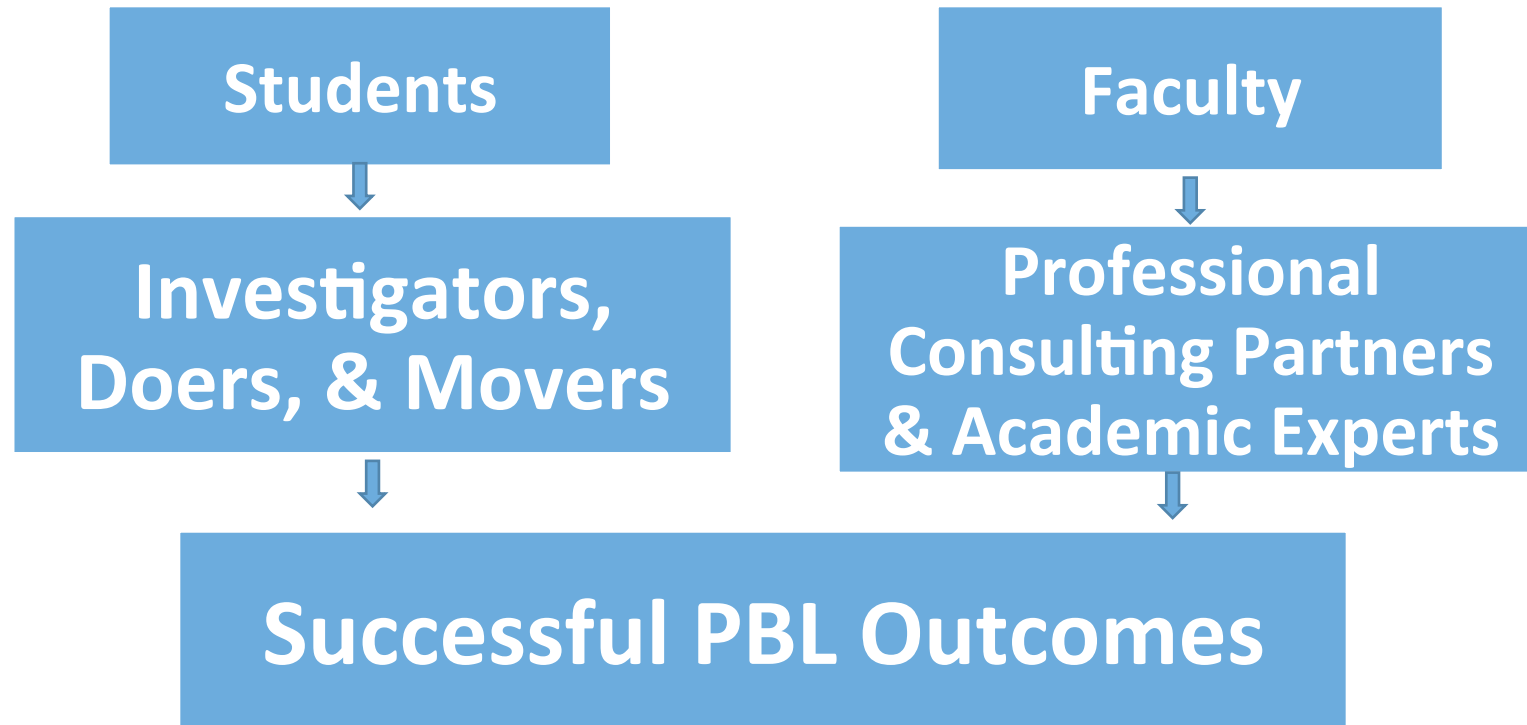
- Figure 1 shows the concept-map of the relationship between learned concepts, **weekly lab assignments, and the single term-long laboratory project**.
- Other features included a number of quizzes, exams, homework assignments,
 - a weekly **lab report**, and a number of discussions/presentations.

Molecular biology course was redesigned



- **Lectures** were designed with respect to the project in a way that would deliver theoretical knowledge and relevant information that students could immediately apply in laboratory learning and lab experiments.
- The first time the redesigned Bio-251 course was taught:
 - **14 students** took part in this unique endeavor.
 - Class met **once a week on Fridays from 4:15 to 9 p.m.**, not a time most students want to spend at school!

Role and Responsibilities In PBL



Project Based Learning

- **In 2003, the NRC** suggested that opportunities for gaining a greater understanding of science could be realized through **PBL** courses.

(Treacy 2011)

PBL addresses fundamental challenge of:

- Increasing students' **motivation**,
- Their **mastery of course material**,
- **Finding applications** for what they have learned to apply in various situations.

Project-Based Learning at the College Level

Hands-On Learning--Chicago River



The Chicago River has played a critical part in the history of Chicago and continues to be utilized to this day. **Tourists** hop aboard boat tours, and some residents kayak the river, despite the fact that it gets bad press due to its polluted ecosystem

The Chicago River: The Small Things That Matter

- Currently only three out of seven of Chicago's water reclamation plants disinfect their wastewater before pumping the effluent back out into the river.



The Environmental Protection Agency (EPA) is targeting to make the Chicago River as a **“Primary Contact Recreation use”** by **2016** , where people can swim in the water without being harmed by waterborne pathogens from raw sewage contamination.



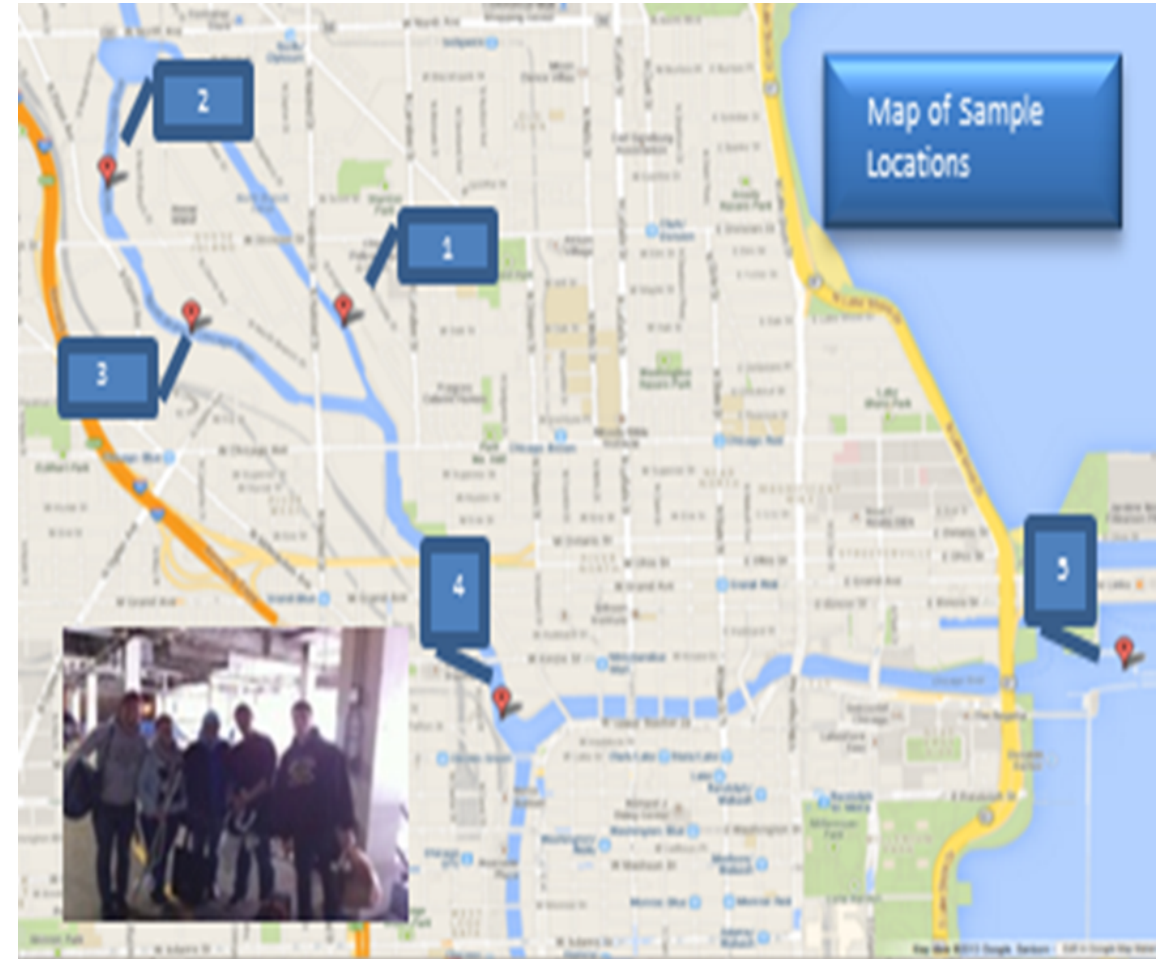
Our goal in this research study:

To investigate the water contamination in the Chicago River, and **determine the coliform count and bacterial identification.** Coliforms are bacteria that originate from the large intestines, and are therefore indicators of fecal contamination. If coliforms are found in water, other pathogenic bacteria may be present as well.

Research Study

- **Five locations** were selected Using a scoop attached to an eight-foot pole, water was collected and transferred into collection bottles

1. Goose Island East Side
2. Goose Island Northwest Side
3. Goose Island West Side
4. Wolf Point
5. Locks (near Lake)

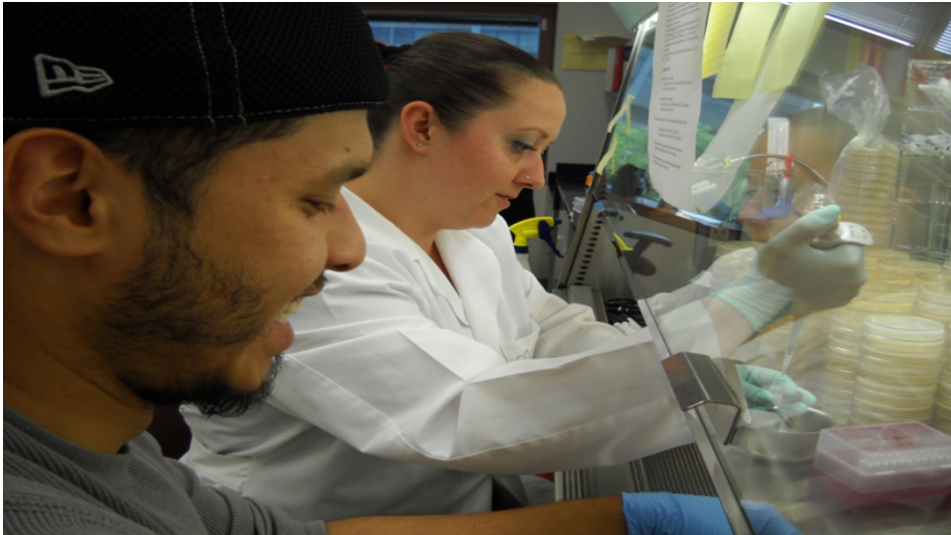
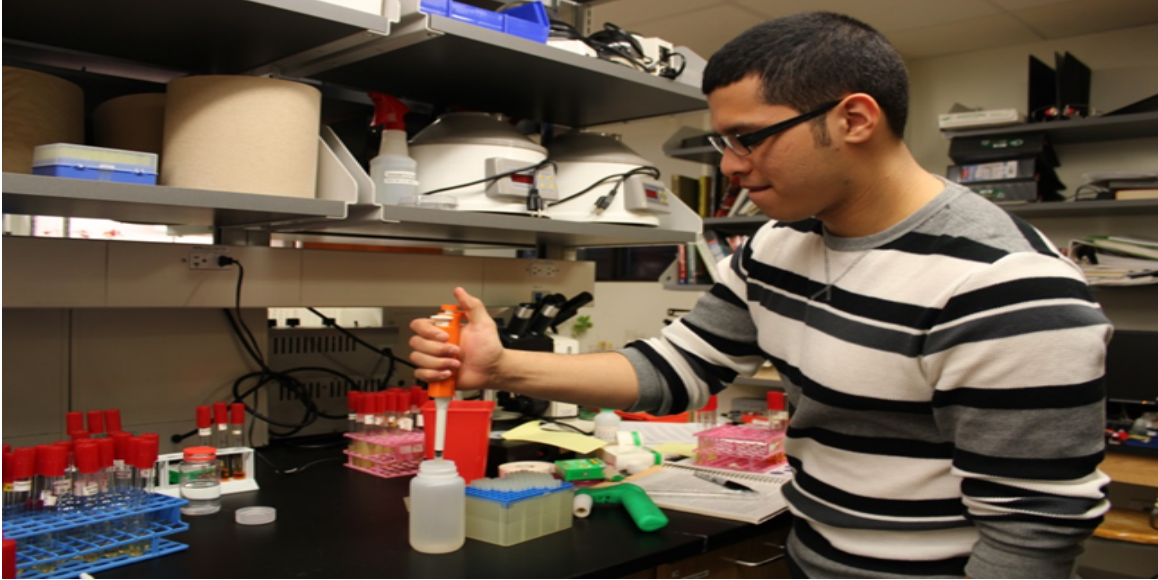


Water was collected **six feet below the surface.**

Two water samples at each site.



The Chicago River: In the Lab



Results of the Study

Water Samples	Location	CFU on MacConkey Agar Plate	Bacterial Identification
Site 1	Goose Island East Side	84,000 /100 mL	Escherichia coli
Site 2	Goose Island Northwest Side	21,500 /100 mL	Enterobacter agglomerans; Escherichia coli
Site 3	Goose Island West Side	144,300 /100 mL	Enterobacter gergoviae; Enterobacter agglomerans; Serratia odorifera
Site 4	Wolf Point	62,000 /100 mL	Escherichia coli
Site 5	Locks (near Lake)	6,000 /100 mL	Enterobacter sp.
Site 6	Wabash Street Bridge	No CFU Count performed	Pseudomonas aeruginosa



Movahedzadeh, et al. (2015). Life in and Around the Chicago River: Achieving Civic Engagement through Project Based Learning, *Science Education and Civil Engagement, An International Journal*, 7:1 Winter2015

The Chicago River: The Small Things That Matter



Civic Engagement

- Chicago Waterways Project, provided students the opportunity to discover **what civic engagement** and **community services** are all about.
- The students felt so proud of themselves. When they were asked why..., **serving and giving back to community** was one of the things they mentioned.

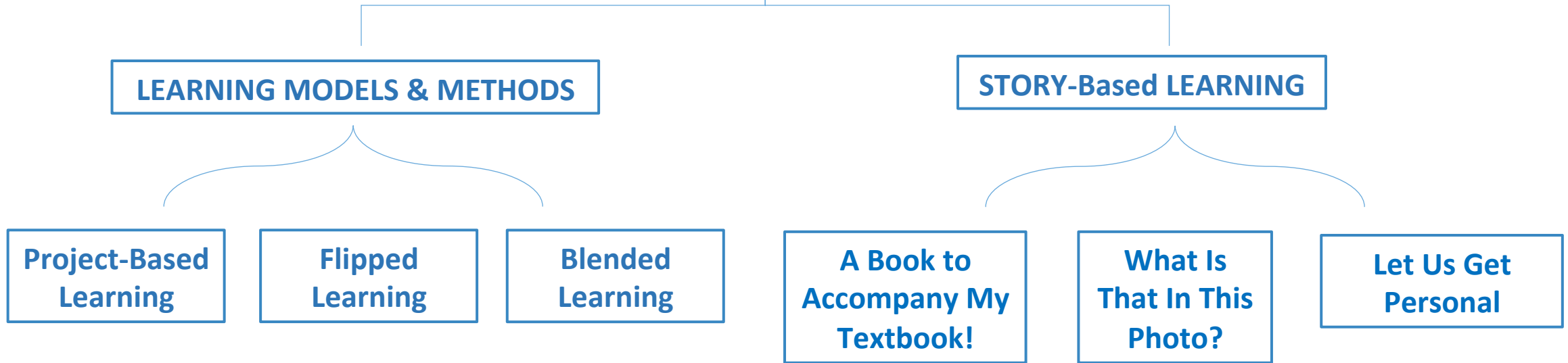
- Bacterial counts are comparable to bacterial counts obtained by the MWRD after weekly testing of effluent wastewater released from both its O'Brien Water Reclamation Plant and Calumet Water Reclamation Plant between 2005 and 2010 (MWRD 2011).
- The bacterial count obtained from Site 3 had a higher count than the highest recorded at the Calumet Water Reclamation Plant (120,000 CFUs /100 mL), yet lower than the highest count recorded at the O'Brien Water Reclamation Plant (200,000 CFUs /100 mL) (MWRD 2011).
- Site 5, where the lowest number of CFUs were recorded by undergraduates, had a count above the minimum CFUs reported at the O'Brien Water Reclamation Plant (660 CFUs /100 mL) (MWRD 2011). All sites where students obtained samples are located approximately eight to ten miles downstream from the O'Brien Water Reclamation Plant.

Brainstorming Session

- Do you implement other types of authentic learning projects on your campus?
- What roadblocks do you face?
- What strategy do you use to implement?
 - Integrate research/authentic learning into existing courses
 - Independent study courses
 - Interdisciplinary projects
 - Other?

Motivating & Inspiring Students:

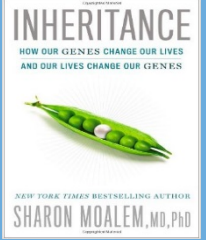
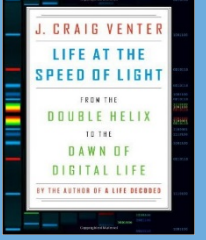
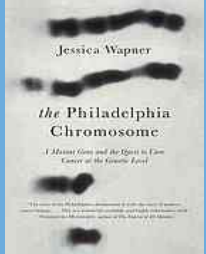
Selected Examples for Motivating and Inspiring Students To
Learn



Pedagogically-Structured Driven Approach

Content-Discovery Driven Approach

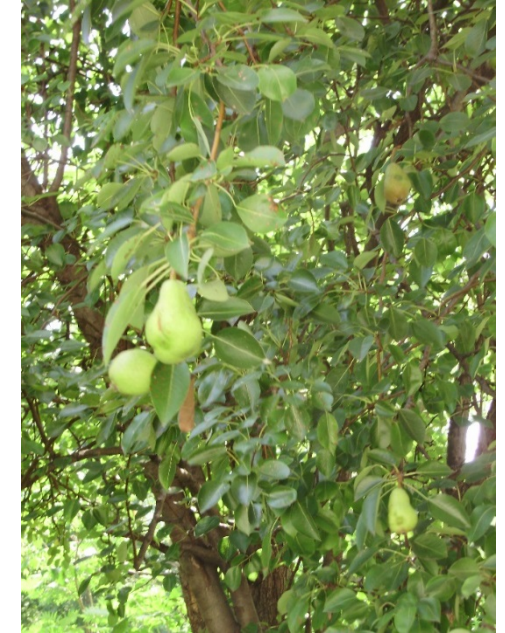
Story-Based Learning as an Example for Motivating & Inspiring Students To Learn

Recommended Book	Title, Author, and Year	Can be Assigned to Accompany
	<p><i>Brain Makers: The Power of Gut Microbes to Heal and Protect Your Brain for Life.</i></p> <p>By: David Perlmutter, MD. 2015</p>	<p>Microbiology Nutrition Pathophysiology Pharmacology</p>
	<p><i>Inheritance: How Our Genes Change Our Lives and Our Lives Change Our Genes</i></p> <p>By: Sharon Moalem, MD, Ph.D 2014</p>	<p>Genetics Molecular Biology</p>
	<p><i>Life at the Speed of Light: From the Double Helix to the Dawn of Digital Life.</i></p> <p>By J. Craige Venter, Ph.D. 2013</p>	<p>Molecular Biology Genetics Molecular Genetics Microbiology General Biology</p>
	<p><i>The Philadelphia Chromosome: A Mutant Gene and the Quest to Cure Cancer at the Genetic Level</i></p> <p>By: Jessica Wapner, Ph.D, 2013</p>	<p>Genetics Molecular Biology Molecular Genetics Pathophysiology</p>

Motivation Students by Communication Cross the Curriculum

- **Provide students with set of unique photos**
- **Ask each student to:**
 - **Identify all the elements that can be seen within a given photo.**
 - **Identify those which considered by the student as the most interesting among all the identified elements seen within a given photo.**
 - **Decide what you want to work on with a group of students from different courses. For example:**
 - **Story**
 - **Published article**
 - **Report**
 - **Play**
- **Promote interactive communication and learning.**

Photos as a Tool to Capture the Attention of Students



Capturing the Attention of Your Students

Photos as a Tool to Capture the Attention of Students

*“This gang of insurgent *Pseudomonas syringae* bacteria (purple) is infiltrating a leaf through an opening called a stoma.”*



(HHMI Bulletin, 2024, Winter 14, Vol. 27, No.1, p. inside cover)

Capturing the Attention of Your Students

*“This gang of insurgent *Pseudomonas syringae* bacteria (purple) is infiltrating a leaf through an opening called a stoma. The tiny pores – used for gas exchange during photosynthesis – are open during the day, providing a perfect route for bacteria to slip through a plant’s outer protective barrier to slip through a plant’s outer protective barrier and take up residence inside. HHMI-GBMF Investigator Sheng Yang He discovered that when plants sense an assault, they shut their stomata to block the invaders.”* (HHMI Bulletin, 2024, Winter 14, Vol. 27, No.1, p. inside cover)

Photos as a Tool to Capture the Attention of Students



(HHMI Bulletin, 2024, Winter 14, Vol. 27, No.1, p. inside cover)

Capturing the Attention
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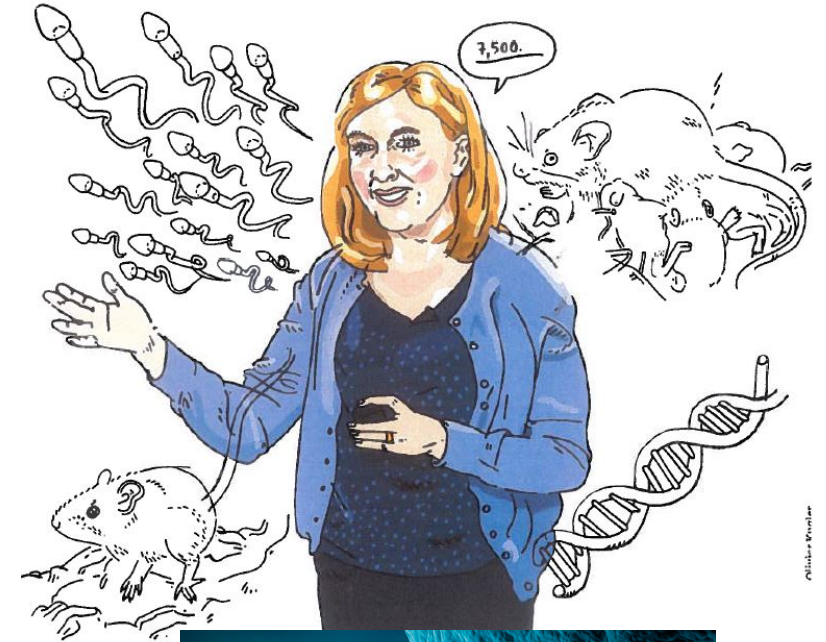


Three Components of Getting Students' Imaginations Going: Learning from Dr. Hope Hoekstra

When she lectures about sex determination to her Life Science students, evolutionary geneticist Hope Hoekstra gets personal.

“From *Personal Stories*, to *Mysteries of the Field*, to **Historical Facts** – helps get the students’ *imagination going*.”

(HHMI Bulletin, 2024, Winter 14, Vol. 27, No.1)





Flipped Classroom

While it's new teaching territory for a lot of us, when done right, *Flipped Learning* or *Flipped Classroom* can energize students and promote higher levels of learning.

It is simplify a new approach that reverses the traditional way classes are designed, taught, and assessed.



Flipped Learning Model

Flipped Learning or the *Flipped Classroom* is used to describe a wide variety of teaching models. However, there is one thing in common among all of them:



Replace the time for class lectures with **group work, discussion, labs, problem-solving and other forms of highly engaged participatory learning, which become “the norm.”**



All the needed material that might have been delivered in lecture format is provided in advance to the students via reading or pre-recorded lecture videos and related web-tools.



Flipped Learning Model

The Flipped Learning model has received support from both governments and well know people. For example:

- **Thomas Friedman**
- **Bill Gates**
- **Bill Nye and**
- [The President's Council of Advisors on Science and Technology Report](#)

have written and talked about the approach and how it is changing education and the world in positive way

(*Brunsell, and Horejsi, 2013, para 5*)



If we look for them, we will find them in every subject we can think of!

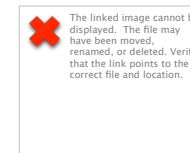


Put simply, in higher education, Flipped Learning is:

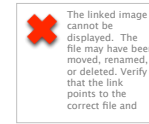
- A learner-centered approach
- Uses web-driven technology
- A blended learning teaching approach
- Exposes students to pre-recorded course content through instructional short videos, podcasts, or other means to be prepared for active class meetings.
- Actively engages students with the same materials in and during class time by interacting with peers and faculty in synchronous discussion activities.
- Interactive during face-to-face sessions.



- Ropchan, K. and Ginelle, Stutt, G. (2013) **Flipped Classroom**. http://etec.ctlt.ubc.ca/510wiki/Flipped_Classroom
- Williams, Jeremy (2013). The Flipped Classroom: How to Flip and not Flop (Including 10 Tips for New Players). <http://www.slideshare.net/jembwilliams/the-flipped-classroom-how-to-flip-and-not-flop-including-10-tips-for-new-players>



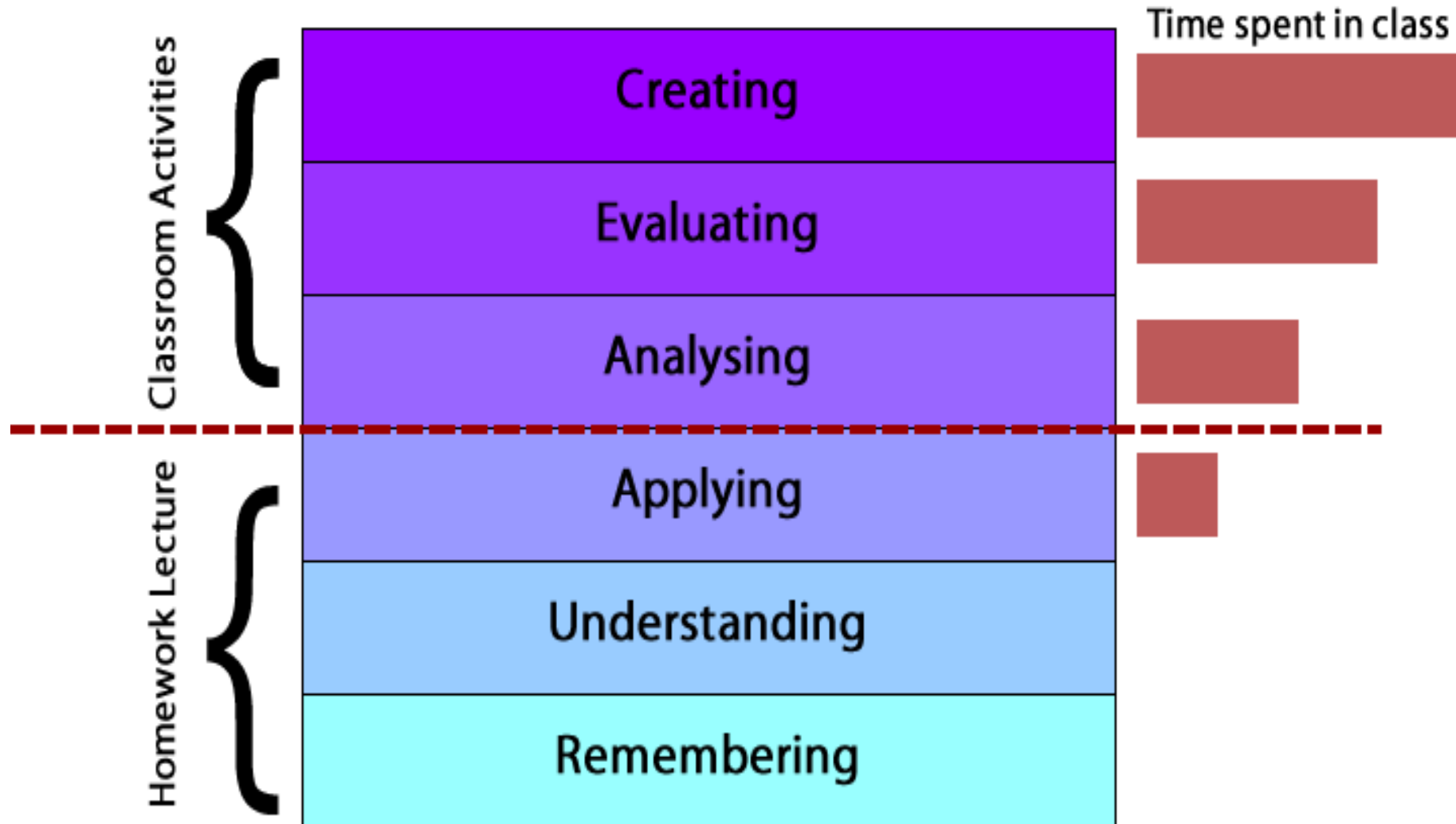
The benefits of flipped learning include:



- More engaged, deeper learning
- More labs
- Cooperative learning
- Students learn how to learn
- More 1:1 time with instructors, building a stronger student/teacher relationship
- Produces more STEM graduates
- Promotes a more creative atmosphere in the classroom
- Reduced drop-out and failure rates
- Increased attendance and reduced discipline problems
- Videos make it easier to share information with other teachers, schools, etc.
- More fun for teachers and students in the classroom
- Provides instruction that is responsive to different learning style

Example from Literature

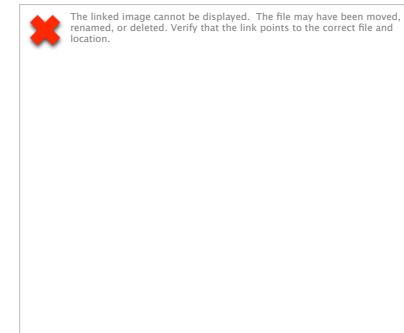
My "Flipped" Maths Classroom



In 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.

From the results of pervious studies, we can conclude that many students did hold **students themselves accountable for their own success or failure most of the time by admitting that they were not motivated, and the educational system is not able to motivate them.**



In Conclusion

- **There is 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 gain the required knowledge and skills needed to succeed in new courses and programs no matter how hard the task is.**
- **But it is not only the student's responsibility. It is also the responsibility of instructors and college administrations to keep students motivated after admitting them to their colleges, programs, and courses.**

New Microsoft CEO Satya Nadella

Microsoft a new CEO Satya Nadella said in one of his presentation with new young inventors from India visiting USA that, in the digital world, you need to invent your self every single day.



I believe, this is what successful teachers and instructors are doing every time they enter a classroom and start teaching their students. They are successful because they continue to invent themselves by being creative and innovative in how to engage, motivate, and connect with their students at all levels.

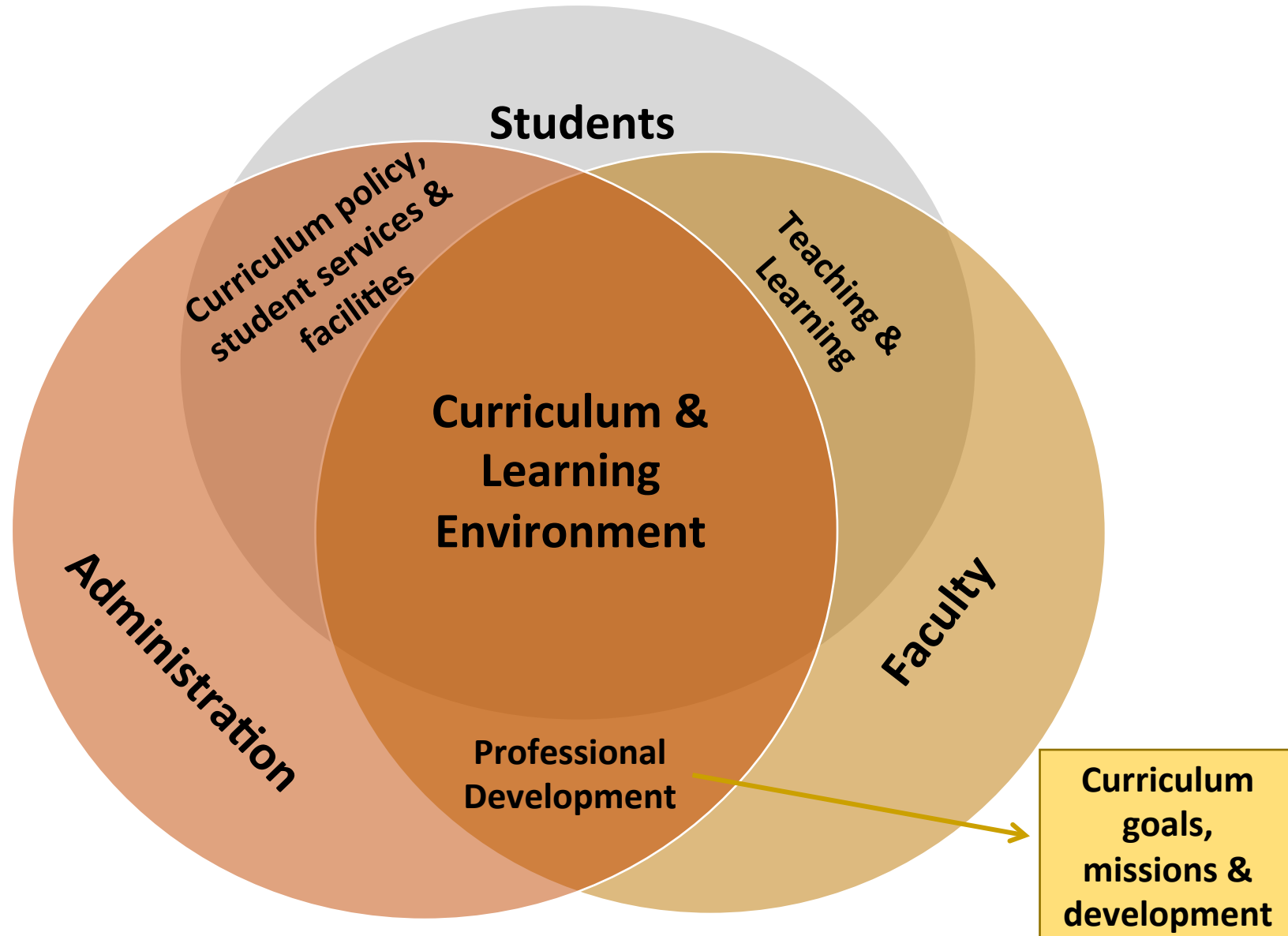


In Conclusion:

We, the faculty, educators, and college administrators, 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 lives and future careers.



Students' Success as a Sustainable Ecosystem of Various Populations and Living Communities



In Conclusion:

- **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?**

What Will It Take To Help All Students Become Successful Learners, and In Turn Succeed?



Questions?



Thank you for coming today.

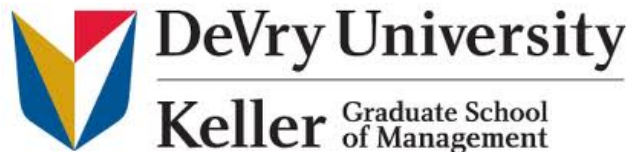
Please feel free to contact any of our presenters with thoughts and questions.



Abour H. Cherif, Ph.D
National Associate Dean
DeVry University



Farah Movahedzadeh, Ph.D
Co-chair, Biology Dept.
Harold Washington College



Contact Information

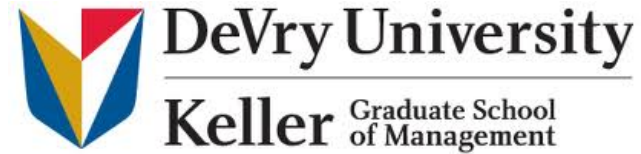
About H. Cherif, Ph.D

National Associate Dean,

DeVry University

(630) 353-7014 (W)

acherif@devry.edu



Farahnaz Movahedzadeh, Ph.D.

Associate Professor of Biology, Dept. Chair

Harold Washington College

(312) 553-5890

fmovahedzadeh@ccc.edu

