

EQUITABLE ASSESSMENT IN HIGHER EDUCATION:

Exploring Innovative Changes in Teaching and
Learning and Assessment

Keynote for the Massachusetts Dept of Higher Education: November 19, 2021

My Work

- Dual Enrollment
- Graduation.
- Big Math for Little Kids
 - *Vocabulary (computational language)*
 - Sum
 - Product
 - Less
- Minorities in STEM
 - *TEAMS1*
 - Change Agency
 - *CSER*
 - Inclusivity (Us versus them)
 - *Space....CSER Space*
 - *Undergraduate Research*
 - *FA Workshop*
- LA/TA Program
 - *Agency of Change*
 - *URE*

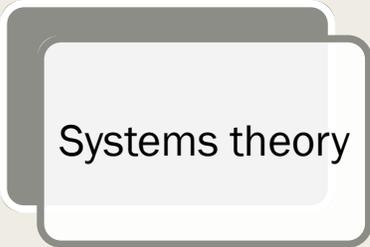
Four goals of the (AMCOA) Massachusetts Higher Education Department

- 60% of Working Age MA residents aged 25-64 will hold an AA or higher. Additionally, 10% of the population will hold a high quality credential by 2030
 - *Promote Culturally sustainable climates in which all students can thrive*
- 43% of AA and 32% of Latino(a) residents aged 25-64 will hold an AA or higher by 2024
 - *Create an inclusive environment*
- By 2030, MASS Public Higher Education student graduates (AA and Latino(a)) will increase by 51% and 50% respectively
 - *Acknowledge the experiences and knowledge and needs of people of color*
- Track racial gaps in first year success metrics, including college level math and English in the first year.
 - *Bridge the racial gap (and measure especially college math and English progress*
 - *Incentivize the development of, and support the implementation of evidence minded, evidence based solutions.*

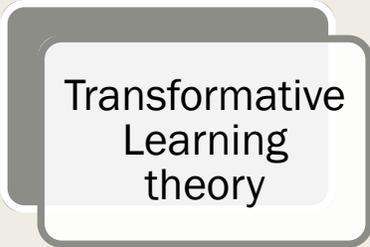
Three Potential Strategies

- Inclusivity:
 - *Creating an Us, instead of a Them*
 - *Sense of Belonging*
- Change Agency
 - *Using Assessment to Celebrate, rather than to punish*
 - *Eliminate victim blaming*
 - *Deep Introspection*
- Redefining Success: Creating an innovative path to success
 - *Innovative methods of Assessment*
 - *Making assessment fun*

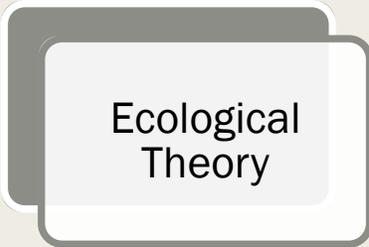
What are some educational theories that can address some of the reasons for low disparities?

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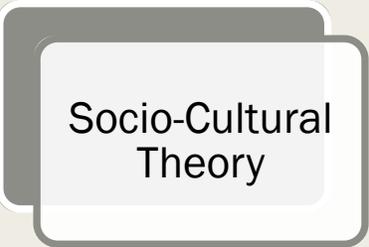
Systems theory

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Transformative
Learning
theory

A light gray rounded rectangular box with a white border and a subtle drop shadow, containing the text "Ecological Theory".

Ecological
Theory

A light gray rounded rectangular box with a white border and a subtle drop shadow, containing the text "Socio-Cultural Theory".

Socio-Cultural
Theory

A light gray rounded rectangular box with a white border and a subtle drop shadow, containing the text "Social reproductive theory".

Social
reproductive
theory

Examining the theories

- Systems theory
 - *How do you change the system/institution to meet this goal of broadening participation*
 - *Disruption. Change the system. Be the change.*
- Transformative learning theory (Merizow) : We are a better institution when we broaden participation. We are not helping them, They are helping us (to become a better institution): Friends School Pedagogical shifts.
- Ecological theory (Bronfenbrenner): Understanding the students' (and professors') inner circles and outer circles. Understanding the role of the university in the ecology of the students (targeted population).
- Social Cognitive Theory Career theory (Bandura): Are the students interacting with people with backgrounds like theirs, in specific career pathways, like STEM? Or as higher level administrators?
- Social Reproduction theory (Bordieu, 1990)? Especially for first generation students. What are we putting in place to ensure them that they are welcome, and that they can/will succeed, and break the cycle?
 - *Capital (social, cultural/experiential, human, economic)*
 - *Ability to navigate*

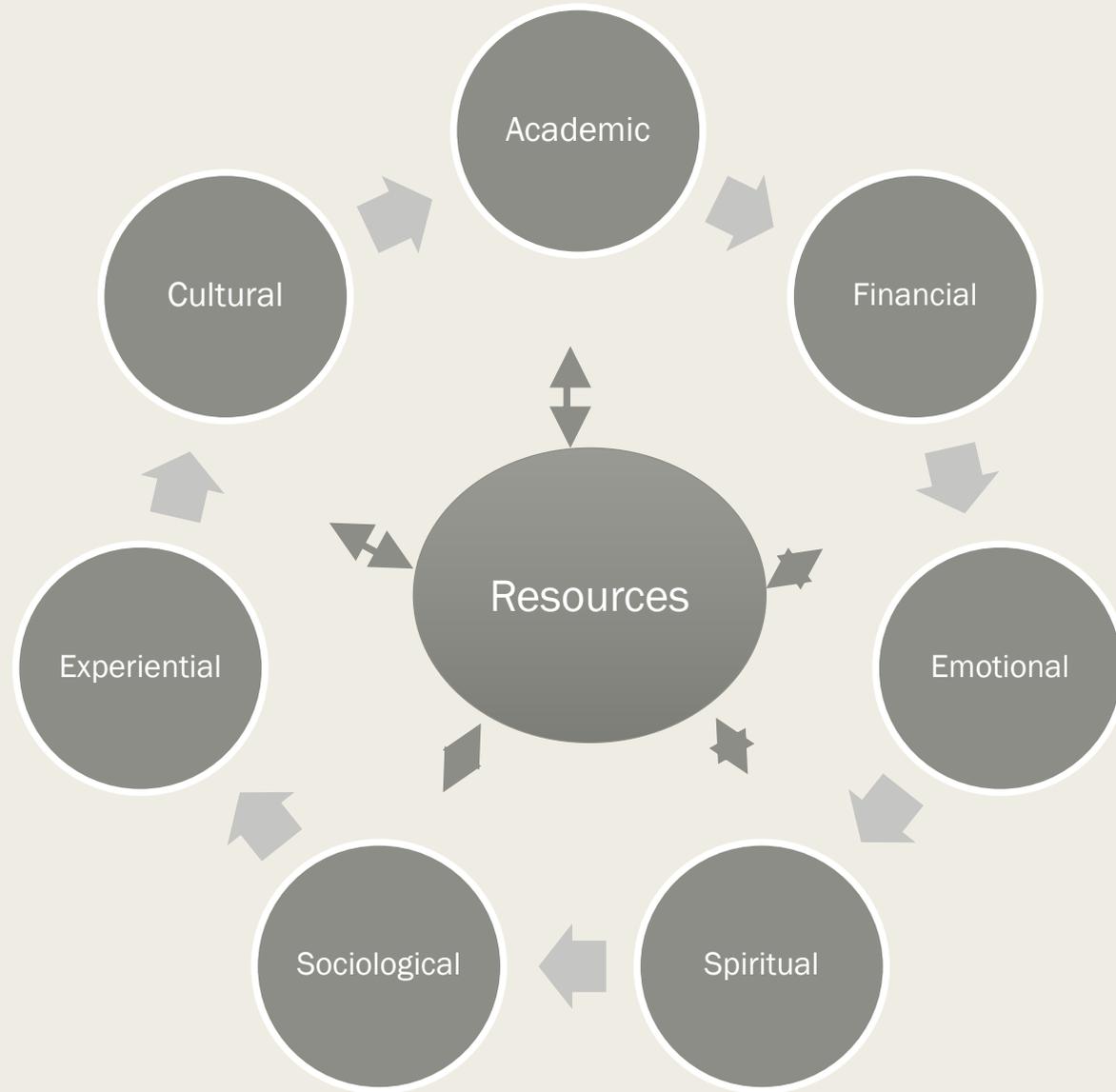
What is the role of assessment?

- Ensure that every student can succeed....Inclusivity
- Gather relevant information about student performance or progress
- Determine student interests to make decisions about the learning process
- Track and help, not hinder progress.
 - *Early warning systems?*
 - *Milestones being made?*
 - *Milestones being met?*
- Measure what the student is learning along along the way, so that there are no surprises at the end of the semester or school year.
- Ensure that students are becoming consumers and facilitators of knowledge and their own learning

Questions

- In what ways is each student prepared for learning activities in college?
- Inside or outside the classroom, how could we focus appropriately upon those who have been minoritized, excluded, or disadvantaged?
 - *Not deficiency based, but asset based.*
- How might instructors and educators determine if those desirable changes are occurring?
 - *Be the agent of change. Be the change*
- Moving beyond equitable outcomes, how can we move to anti-racist assessment practices?
 - *A few tools*

Contributors to Higher Education Success



A path towards equity is a path towards success redefined

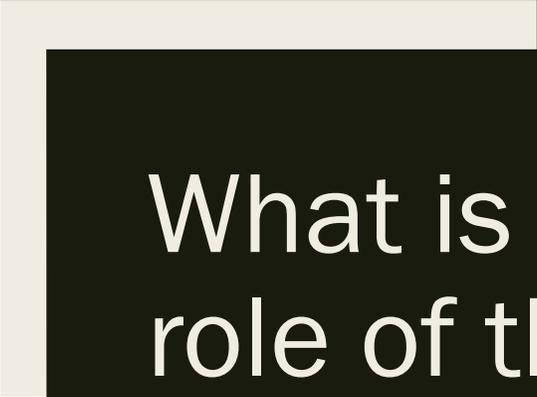
- *Inclusivity*
- *Change Agency*
- *Success redefined to include the afore-mentioned contributors*
- *Everyone Wins Transformational Learning Theory*

What is an ideal framework for success

- University supports students, expects high graduation rates
- Facilitators of knowledge are successful
- Settings for knowledge are ideal
- Students' assets are appreciated and appropriate for each setting
- Students are successful in classes and/or learning sessions
 - *What do we measure in student success?*
 - Health
 - Financial success
 - Grades
 - Graduation
 - Jobs
 - Low Attrition
 - Well being
 - Sense of belonging

INCLUSIVITY:

Creating an Us instead of an Us vs Them



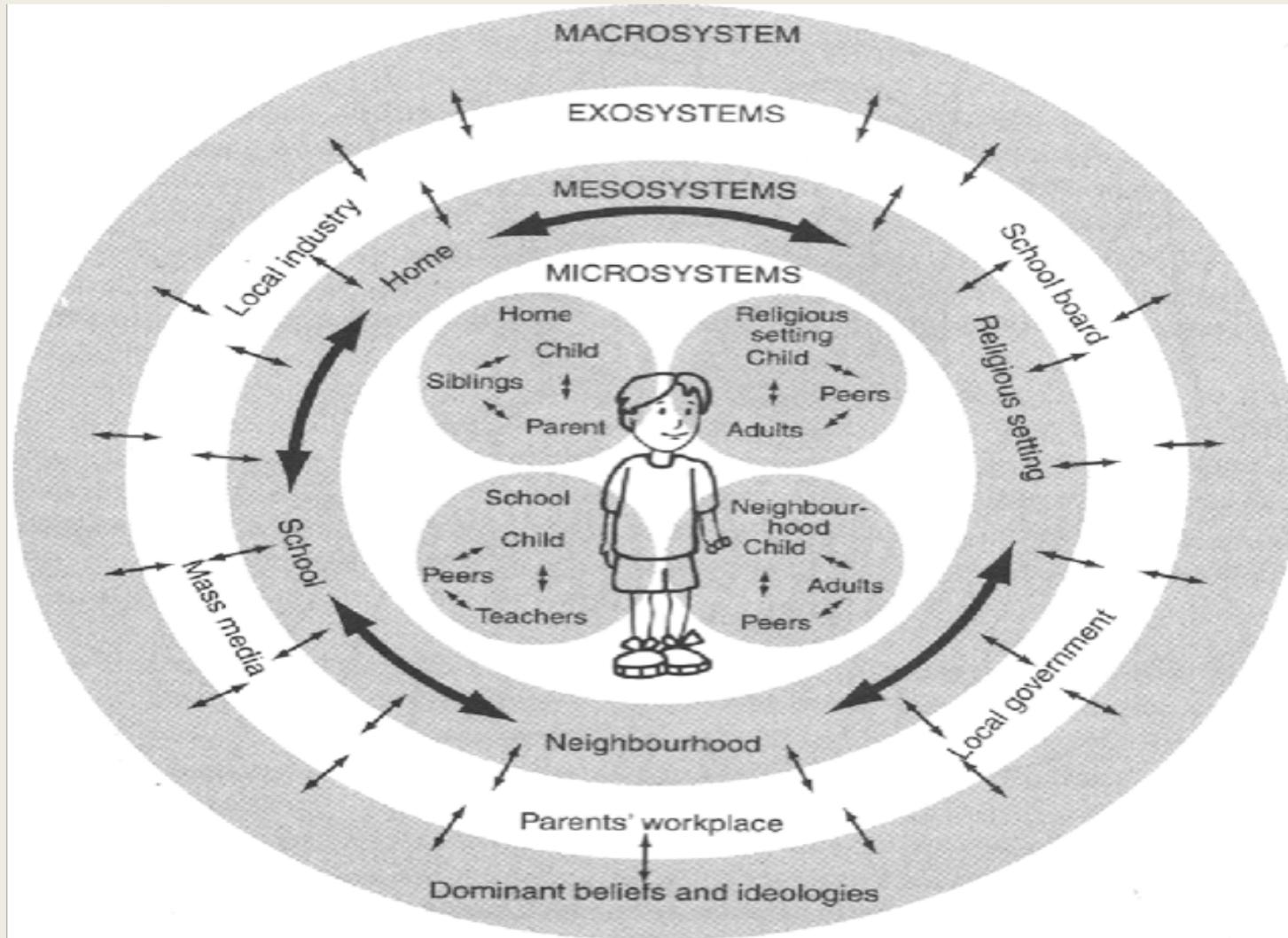
What is the role of the Facilitator of instruction?

- Facilitator of information and instruction
 - *Provide a fair, safe, comfortable and “challenging” classroom that will allow the students to reach their maximum learning potential in the classroom*
 - *Guide the students in such a way that they are able to demonstrate what they have learned through different methods of demonstration.*

Understand the student.....Deficiency Model

- All students, regardless of background bring an expectation of success
- Ecology (Bronfenbrenner)
 - *What is the student's Background? (See image) What does the student bring to the university? What does the university bring to the student?*
 - *How can assessment address this?*
- Attribution Theory (Weiner)
 - *Confidence (Confidence includes willingness to ask for help (varying levels))*
 - *Motivation*
 - *Desire to learn*
- Social Capital (Coleman)
 - *Social Capital (varying degrees of Knowing their rights)*
 - *Experiential Capital (Varying degrees of First Generation)*
 - *Cultural Capital (Add/Drop sessions, availability of services on campus)*

Urie Bronfenbrenner's Ecological Theory



Systems theory: How is the IHE System adapting and adopting to become inclusive

- Input
- Throughput
- Output
- Feedback
- Change

Systems theory

- What is a system?
 - *A group of interacting, interdependent parts that form a complex whole.*^[3]
- **Input:** What do you put into the system to ensure that the process will be set into motion
- **Throughput:** What is the rate at which we are moving towards our goal? **XXX students on track to graduate in XXX years**
- **Feedback:**
 - *Results that you receive to show that your “system” is or is not working (SPSS UNIX example). Pass/fail rates, dropout rates,*
- **Adaptation:**
 - *How does your organization (or system) make informed and intentional changes to ensure that the goal can still be met.*
 - *(SPSS unix example)*
- **Process: What is the method (what are the methods) by which this (these) adaptations are made, in order to change the output?**
 - *Are all systems in the university involved? Academic, administrative, student affairs? Alumni affairs? Marketing? What type of energy are they bringing to the table? Are they all equally invested?*
- **Is the system open or closed?**
 - *Examples of open systems? Examples of closed systems?*

Perceptions of the Professor---Equity versus Professional Lens. Changing the Systems Process

■ Traditional Lens

- All Knowing
- Rigid
- Creates the curriculum
- Prescribes the textbook
 - *How do they assess*
- Teaches the classes
- Takes attendance
- Administers the test
- Grades the test

■ Equity Lens

- Lifelong Learner
- Flexible (extensions, incompletes, etc)
- Carefully designs a curriculum with specific learning goals in mind. Understand the learning goals. Explain them several times.
- Open to additional readings (extra credit work)
- Facilitates instruction, open to feedback
- Concerned about students in the class. Early warning systems.
- Assesses students' knowledge and understanding because she/he cares
- Grades the test in order to understand both teaching and knowledge

What do the students bring

■ Expectation of success

- Basic high school education***
 - *Richness of experience and knowledge*
 - *Basic skills needed to succeed in college (Resiliency)*
- Willingness to learn
 - *Confidence (Confidence includes willingness to ask for help (varying levels))*
 - *Motivation*
 - *Styles of learning*
- Diversity
 - *Social Capital (varying degrees of Knowing their rights)*
 - *Experiential Capital (Varying degrees of First Generation)*
 - *(Have you used APA before? Do you understand office hours)?*
 - *Cultural Capital (Add/Drop sessions, availability of services on campus)*

Students and Faculty getting to know one another

- Ecology (Bronfenbrenner).....inclusivity
 - *What are our Backgrounds? What do we bring to the University?*
 - *How can assessment address this?*
- Attribution Theory (Weiner)
 - *Confidence (Confidence includes willingness to ask for help varying levels)*
 - *Motivation....excited about teaching this class, excited about you as individuals in this class, I am open to providing you with additional help if needed.*
 - *Desire to learn....I also hope to learn from you.*
- Social Capital (Coleman)
 - *Social Capital (varying degrees of Knowing their rights. Professor informs students of their rights, and invites them to exercise them)*
 - *Experiential Capital (Varying degrees of First Generation). Office hours*
 - *Cultural Capital (Add/Drop sessions, availability of services on campus)*
- Importance of Assessment. Different types of assessment.

Ways to be inclusive

- Dare to be vulnerable. Introduce a vulnerable aspect of yourself.
- Have a box in the class, pick out a question for each student
- Have a box of questions, have a student to select a number and ask a question
- Each person introduces her/himself but talks about personal things such as (favorite tv program, favorite sport, hardest class, class expectations, what do you think of assessment, pets)
- Why did you select this university?
- Why did you select this class?
- Discuss options for office hours
- Discuss services available
- Expectation that all will pass this class. Provide options such as extra credit.

CHANGE AGENCY

Using Assessment to Celebrate, rather than to Punish

What Assessment Questions should the Professors be asking themselves?

- Self Introspection
- Are my points getting across?
- How am I ensuring that my points are getting across, and that the students are ready for the next section of my scope/sequence?
- Are my assessments and/or measures fair?
- Are my assessments valid (Am I assessing what I taught)
- How reliable are my assessments?
- Am I using fair methods to assess students (different methods)
- Why am I assessing the students? What am I trying to learn by assessing the students?
- Are my formative assessments linked to my different sequential units and learning outcomes in my classes?
- Are they Anti-Racist? Are they inclusive? What do I need to change:

Ensuring Success

- Present Class requirements
- Address additional services for students who may need them
- Get to know the students
- Explain the reason for the class (Advance organizer)
 - *Explain scope and sequence*
 - *Initial Assessment of the students*
 - *Are they at a level that will ensure that they can learn introductory materials*

Embrace the institutional approach to celebrating excellence



Who else in the landscape is assessing student learning

- Residence Halls
- Town Meetings
- Clubs and Organizations
- Alums
- Funders
- Benefactors
- US News and World Report

Expectation vs Reality

- Students are not always successful in classes and/or learning sessions
- University supports students, expects high graduation rates
 - *Students are unaware of these various support systems*
- Facilitators of knowledge are successful
 - *Facilitators of knowledge may be knowledgeable, but they may not connect with each student (everyone comes with their own particular needs)*
- Settings for knowledge are not always ideal
 - *Settings may be less than ideal for some students (for instance, large undergraduate classes, less contact with the professor, office hours may not work internet w/ COVID etc.)*
- Students' assets are appreciated and appropriate for each setting
 - *Students are sometimes labelled Results of performance of students takes on a deficiency-based model, and are sometimes either used or seen as punitive*

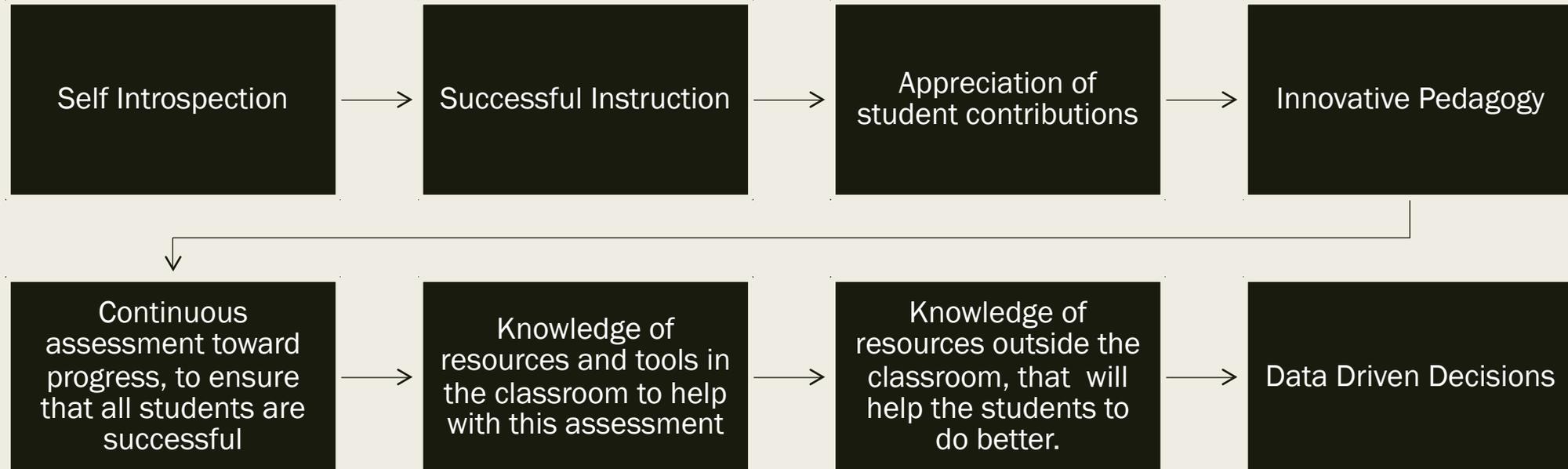
Additional Student Supports

- Internal socio/emotional
 - *Emotional*
 - *Social*
 - *Sense of Belonging*
 - *Financial*
 - *Spiritual*
- Academic
 - *Academic*
 - *Additional Access to needed Resources*
 - *Time Management*
 - *How to study*

A small, vibrant green plant with several leaves is growing out of a crack in a dark, textured surface, possibly concrete or stone. The background is dark and moody, with some faint, brownish patterns. The overall image conveys a sense of resilience and growth.

BE THE CHANGE-REDEFINING SUCCESS:
CREATING AN INNOVATIVE PATH TO
SUCCESS

How do we create a path toward success



Additional Opportunities for success

- Extra Credit
- Give students an opportunity to rewrite the paper if s/he scored below a certain grade
- Change assignments and/or assignment dates
- Retake the Exam
- Give the student additional opportunities to take the class maybe credit non-credit
- Allow the students to have an incomplete, and work with them to finish the class.
- Refer the students to services before the "high stakes" tests
- Allow the students to explain reasons for their grades.
- Test Prep

References

- Patton, W., & McMahon, M. (1999). *Career Development and Systems Theory A new relationship*. Pacific Grove: Brooks/Cole Publishing Company.
- Patton, W. & McMahon, M. (2006). [The Systems Theory Framework of Career Development and Counseling: Connecting Theory and Practice](#). *International Journal for the Advancement of Counselling*, **28**(2), 153-166. DOI: [10.1007/s10447-005-9010-1](#)

Current Examples and lessons

- LA Program HBCU: Change Agency
 - *New Pathways towards success*
- STEM Research Center: Inclusivity
 - *Undergraduate Learning*
 - *LA Tail wagging the dog*
- Reginal STEM Center: Pathways towards success
 - *Mentoring*
 - *Online Learning*
 - *Online Advising*
 - *Weekly meetings to talk*