Facilitating Faculty Development to Promote Self-Directed Learning

2018 Sunshine State Teaching & Learning Conference

Amanda M. Wolcott & Eric Main

Our Challenge

- 44% of college faculty report their students are "ill prepared for the demands of higher education" (Sanoff, 2006).

- 45% of 3000 students showed no significant learning gains over 2 years and 36% showed little change over 4 years in critical thinking, analytical reasoning, problem solving, and writing (Arum and Roksa, 2011).

- Teachers' intend to enhance academic and cognitive development.

- Many students study as if academic success depends on the reproduction of taught material.

UCF

NSSE 2017 Snapshot

## Lowest Performing Relative to Public Carnegie

Worked with other students on course projects or assignments[b] (CL)

Connected your learning to societal problems or issues[b] (RI)

Asked another student to help you understand course material[b] (CL)

Explained course material to one or more students[b] (CL)

Spent more than 15 hours per week preparing for class

Percentage Point Difference with Public Carnegie
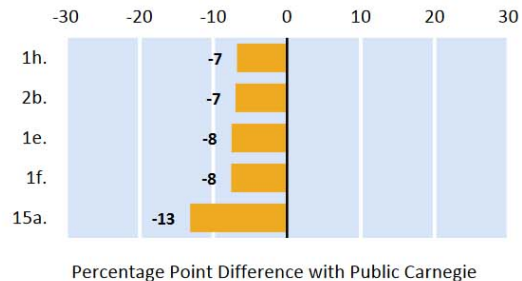
Our Rationale

- The development of metacognitive skills and the application of learning strategies are directly related to student learning outcomes and success in higher education.

- When faculty emphasize learning strategies, students increase their usage of them. Dumford, *et al* (2016)

UCF

Framework: Student Approaches to Learning

- Surface
- Deep
- Strategic
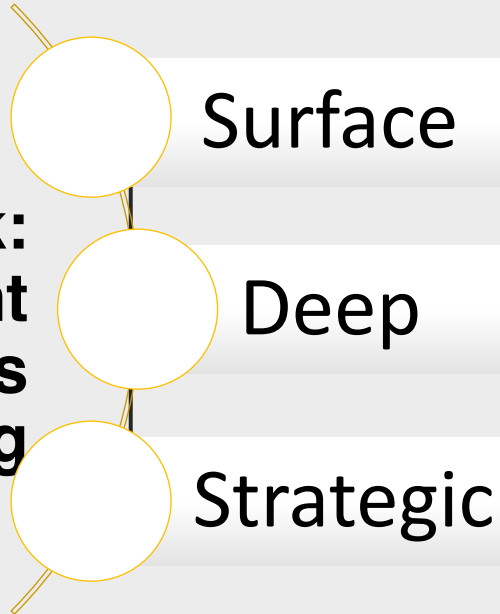
Marton and Säljö (1976, 1984) Entwistle and Ramsden (1983), Biggs (1987)

Surface Factors

- Lack of Purpose
- Unrelated Memorizing
- Syllabus Boundedness
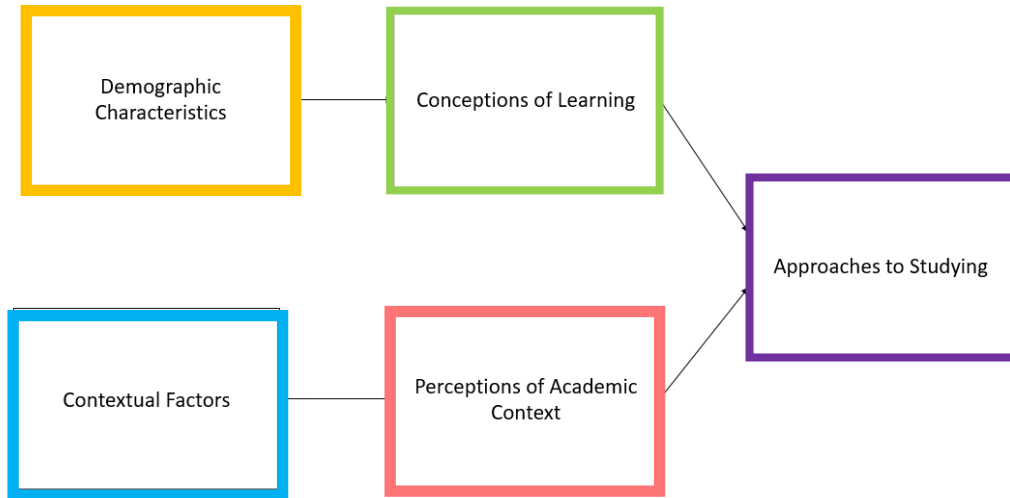- Fear of Failure

Deep Factors

___

- Seeking Meaning
- Relating Ideas
- Use of Evidence
- Interest in Ideas

Strategic Factors

- Organized Study
- Time Management
- Achieving
- Alertness to Demands
- Monitoring

Our Model

An Integrated Model of Students' Approaches to Studying (Richardson 2005)

Demographic Characteristics

- Intellectual abilities
- Cognitive style
- Personality (openness, conscientiousness, neuroticism)
- Academic motivation
- Goal orientation
- Attributions of academic success
- Self-efficacy
- Effort
- Epistemological and intelligence beliefs
- Prior performance
- Prior knowledge
- Age
- Gender

Conceptions of Learning

1. Learning as the increase of knowledge
2. Learning as memorizing
3. Learning as the acquisition of facts or procedures
4. Learning as the abstraction of meaning
5. Learning as an interpretative process aimed at the understanding of reality.
6. Learning is a constructive and purposeful process

Contextual Factors

- Formative and summative assessment plan
- Allocation of work and feedback
- Course structure, organization and management
- Instructor
- Class size
- Class modality
- Day/time

UCF

Perceptions of Academic Context

- Good Teaching
- Clear Goals and Standards
- Appropriate Workload
- Appropriate Assessment
- Emphasis on Independence
- Confidence with Modality

UCF

An Integrated Model of Teachers' Approaches to Teaching, Conceptions of Teaching, and Perceptions of the Teaching Environment
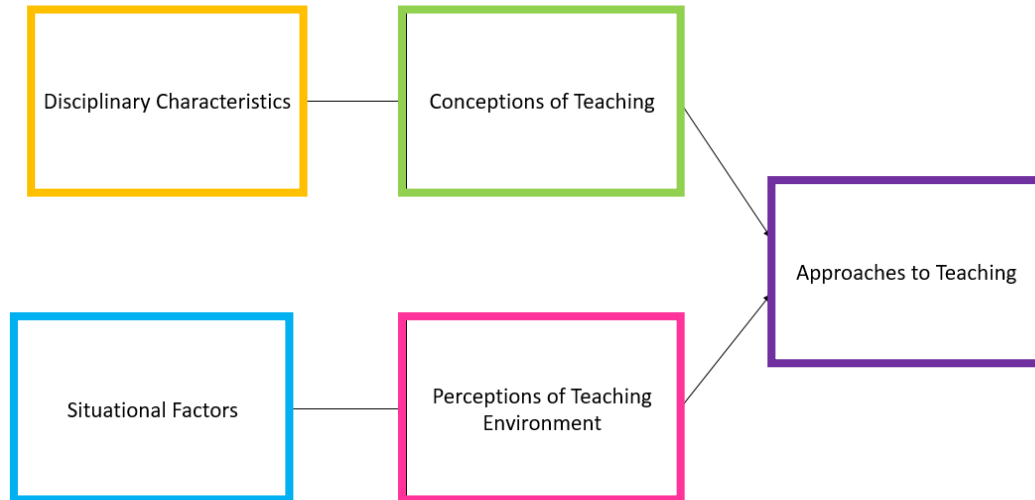
What We Did

Our Program:

- One-Semester Course Redesign Project
- Grant: $500
- Deliverable: course revision that specifically addresses student learning approaches

Engineering	Digital Media
Public Administration	Humanities
Integrated Business	Writing and Rhetoric
Philosophy	Economics
Psychology	

UCF

Faculty Projects Included

- Coding Project Series
- Goal Contract
- Scaffolding Bloom's Taxonomy
- Statistics Videos
- Study Skills Inventories and Modules

Our Measures

- Demographics
- Approaches and Study Skills Inventory for Students (ASSIST; Entwistile, 2000)
- Experiences of Teaching & Learning Questionnaire (ESRC, 2009)

What We
Know So Far

Demographic Predictors of Approaches

	Surface	Deep	Strategic
Age	⬇	⬆	⬆
Gender			⬆
Full Time Student	⬆		
Course Load	⬆		
Source of Tuition	⬆		
Employment	⬇		
First Generation	⬆		⬇

Motivation Predictors of Approaches

	Surface	Deep
Professor	5	1
Grade Forgiveness	2	2
Interest in Subject	4	3
Pre-requisite	1	5
Worked With Schedule	3	4

UCF

Experience of Teaching & Learning Predictors of Approaches

	Surface	Deep	Strategic
Congruence/Coherence	⬇️	⬆️	⬆️
Teaching for Understanding	⬇️	⬆️	⬆️
Instructor Enthusiasm & Support	⬇️	⬆️	⬆️
Constructive Feedback		⬆️	⬆️
Support from Classmates		⬆️	⬆️
Interest & Enjoyment	⬇️	⬆️	⬆️
Demands	⬆️	⬇️	⬇️
Perceived Learning	⬇️	⬆️	⬆️

Next Steps

- Implementation and data collection in progress
- Compare across contexts
- Offer recommendations for best practices.
- Stay tuned

Thank You!
Questions?

Academic Majors and Approaches

Strategic Approach	Deep Approach	Surface Approach
Physical Sciences, Math, Engineering (M=4.18, SD=.83)	Physical Sciences, Math, Engineering (M=4.05, SD=.30)	Pre-Professional (M=3.15, SD=.38)
Pre-Professional (M=4.14, SD=.50)	Pre-Professional (M=3.98, SD=.30)	Life Sciences (M=3.02, SD=.59)
Life Sciences (M=4.03, SD=.40)	Social & Behavioral Sciences (M=3.83, SD=.50)	Arts & Humanities (M=3.02, SD=.65)
Social & Behavioral Sciences (M=3.99, SD=.54)	Life Sciences (M=3.70, SD=.49)	Physical Sciences, Math, Engineering (M=2.91, SD=.95)
Arts & Humanities (M=3.51, SD=.59)	Arts & Humanities (M=3.41, SD=.76)	Social & Behavioral Sciences (M=2.89, SD=.52)

UCF

Predictors of Surface Approaches - Demographics

- Age (*β*=-.26, SE=.00)
- Reason for taking the course (*β*=-.19, SE=.02)
  - Pre-requisite or Requirement (*M*=3.03, *SD*=.56)
  - Grade Forgiveness (*M*=2.92, *SD*=.41)
  - Worked with Schedule (*M*=2.88, *SD*=.39)
  - Interest in Subject (*M*=2.83, *SD*=.51)
  - Professor (*M*=2.59, *SD*=.54)

- First Generation (*β*=.09, SE=.03)
- Full-Time Status (*β*=.12, SE=.08)
- Class Load (*β*=.13, SE=.04)
- Employment (*β*=-.14, SE=.04)
- Source of Tuition (*β*=-.11, SE=.02)
  - Other-Funded (*M*=2.98, *SD*=.55)
  - Self-Funded (*M*=2.93, *SD*=.54)

UCF

Predictors of Deep Approaches - Demographics

- Age (β=.13, SE=.00)
- Reason for taking the course (β=.18, SE=.02)
  - Professor (*M*=4.11, *SD*=.45)
  - Grade Forgiveness (*M*=3.94, *SD*=.27)
  - Interest in Subject (*M*=3.86, *SD*=.48)
  - Worked with Schedule (*M*=3.75, *SD*=.40)
  - Pre-requisite or Requirement (*M*=3.71, *SD*=.45)
- Source of Tuition (β=.09, SE=.02)
  - Other-funded (*M*=3.74, *SD*=.44)
  - Self-funded (*M*=3.79, *SD*=.49)

UCF

Predictors of Strategic Approaches - Demographics

- Gender (β=.15, SE=.05)
- Age (β=.11, SE=.00)
- First Generation (β=-.16, SE=.02)

Predictors of Surface Approaches – Experiences of Teaching & Learning

- Congruence and Coherence (β=-.30 SE=.07)
- Teaching for Understanding (β=-.21, SE=.06)
- Instructor Enthusiasm and Support (β=-.14, SE=.07)
- Interest/Enjoyment Generated from Course (β=-.23, SE=.06)
- Demands (β=.28, SE=.07)
- Perceived Learning (β=-.16, SE=.06)

UCF

Predictors of Deep Approaches – Experiences of Teaching & Learning

- Congruence and Coherence (β=.45, SE=.06)
- Teaching for Understanding (β=.44, SE=.05)
- Instructor Enthusiasm and Support (β=.31, SE=.07)
- Constructive Feedback (β=.20, SE=.05)
- Support from Classmates (β=.26, SE=.04)
- Interest/Enjoyment Generated from Course (β=.43, SE=.05)
- Demands (β=-.33, SE=.07)
- Perceived Learning (β=.44, SE=.06)

UCF

Predictors of Strategic Approaches – Experiences of Teaching & Learning

- Congruence and Coherence (β=.39, SE=.07)
- Teaching for Understanding (β=.29, SE=.06)
- Instructor Enthusiasm and Support (β=.24, SE=.08)
- Constructive Feedback (β=.31, SE=.05)
- Support from Classmates (β=.22, SE=.05)
- Interest/Enjoyment Generated from Course (β=.36, SE=.06)
- Demands (β=-.32, SE=.07)
- Perceived Learning (β=.38, SE=.06)

UCF