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Student Learning Outcomes Poster Session for CSB/SJU Joint Board of Trustees Meeting, December 5th, 2014

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Developing Critical Thinking Skills In Psychology

Pamela L. Bacon

Associate Professor & Psychology Department Chair

Introduction

Psychology majors and alums are presented with daily opportunities to utilize the critical thinking skills they developed at CSB/SJU. Whether they are reading a newspaper article, serving their community on a School Board or a non-Profit, making decisions about their health care, caring for others, or identifying how to best use their resources, people constantly encounter summaries of research studies and conclusions about research studies. Developing students' ability to critically evaluate research and the conclusions drawn from the research is one of the main CSB/SJU Psychology Department learning goals.

Starting in 2011, I began changing the way I taught my courses so that the main goal of every course regardless of the target audience or level of the course was to develop students' critical thinking skills. I shifted the focus of my courses from only covering content to also developing critical thinking skills using examples from everyday life (e.g., radio news reports, magazine articles, and newspaper articles) and also from the psychological literature. Students practiced these skills in a variety of assignments and in class activities that were appropriate for the students' current training in psychology.

Most research methods courses lend themselves naturally to developing critical thinking skills, so I already had a number of critical thinking activities to use in this course. Content courses like introductory psychology and social psychology typically emphasize mastering terminology and theories, so I spent considerable time developing critical thinking activities and assignments that would fit within the content areas but still ensure that students developed their critical thinking skills.

Goal: To determine if focusing on critical thinking in psychology leads to changes in students' critical thinking skills across the semester.

Method

Participants

Pam Bacon's spring 2012 introductory psychology ($N = 30$), research methods ($N = 16$), and social psychology ($N = 30$) courses completed the in-class assessment on the first and last day of class.

Materials

Critical thinking was assessed using Lawson's (1999) Critical Thinking in Psychology test. This 8-item test was developed to measure students' ability to read about a fictional study and then critique the researcher's conclusion. Students must describe what the problem is with the researcher's conclusion and then explain why it is a problem. The researchers used Penningroth et al.'s (2007) scoring system, which assigns one point for identifying the problem and one point for the explanation. Because one of the items combined the identification and explanation, it was only worth one point; the others were worth two points, for a total of 15 points possible.

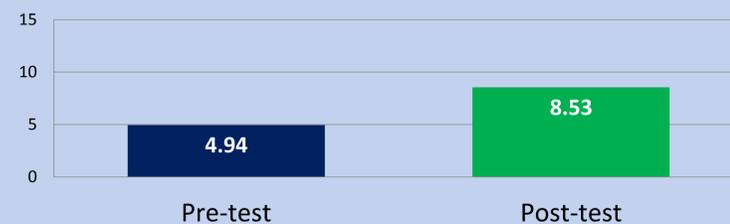
Procedure

Each response was typed and given a code. The two researchers who coded the responses were blind to whether it was a pre-test or post-test responses and blind to whether it was from an introductory, research methods, or social psychology student.

Results

Research Methods Pre-Test and Post-Test Averages

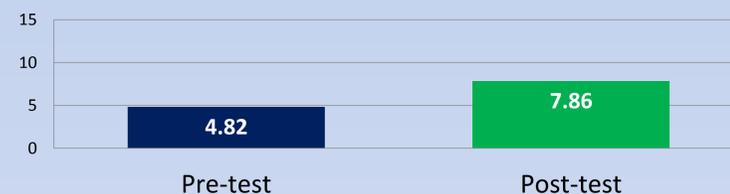
Research methods is a required 200 level course taken by sophomore and junior psychology majors.



*Paired t-test results: $t(16) = -5.45, p < .001, d = 1.3, r^2 = .65$.

Social Psychology Pre-Test and Post-Test Averages

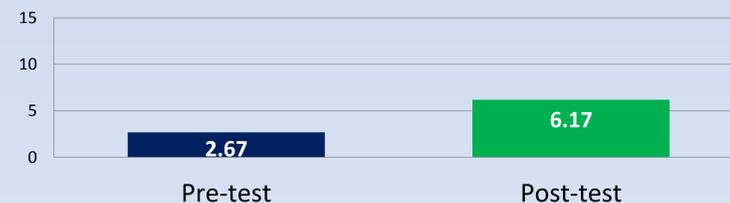
Social psychology is a 300 level course typically taken by junior and seniors who are psychology majors or minors. In addition to teaching course content in social psychology, I also emphasize critical thinking and quantitative reasoning skills in this course.



*Paired t-test results: $t(27) = -6.38, p < .001, d = 1.2, r^2 = .60$.

Introductory Psychology Pre-Test and Post-Test Averages

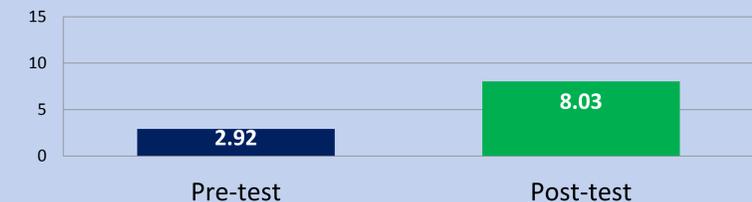
Introductory psychology fulfills the social science requirement in the Common Curriculum. This may be many students' only exposure to using the scientific method to answer social science questions.



*Paired t-test results: $t(29) = -7.00, p < .001, d = 1.3, r^2 = .63$.

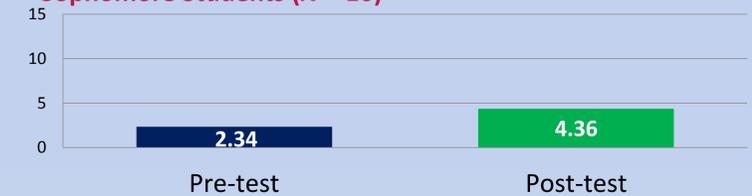
Comparison of First Year Students' vs. Sophomore Students' Gains in Introductory Psychology

First Year Students ($N = 12$)



*Paired t-test results: $t(16) = -7.11, p < .001, d = 2.0, r^2 = .82$.

Sophomore Students ($N = 16$)



*Paired t-test results: $t(16) = -5.45, p < .001, d = .89, r^2 = .46$.

Conclusion

Students demonstrated substantial growth in critical thinking scores in research methods, social psychology, and introductory psychology across the semester. The gains were particularly large for first year students in introductory psychology.

First years showed much higher gains on the post-test than the sophomores in introductory psychology. This finding highlights the importance of developing the skills when students are developmentally ready to learn them.

One troubling finding was that the senior psychology majors did not have higher critical thinking pre-test scores than the sophomore research methods students, suggesting that the gains made in research methods are not built upon in upper division content courses. Based on these assessment results, the Psychology Department has made changes to introductory psychology labs and is reviewing and incorporating best practices in teaching critical thinking into all courses.

References

- Lawson, T. J. (1999). Assessing psychological critical thinking as a learning outcome for psychology majors. *Teaching of Psychology, 26*, 207-209.
- Penningroth, S. L., Despain, L., & Gray, M. J. (2007). A course designed to improve psychological critical thinking. *Teaching of Psychology, 34*, 153-157.

Learning Goals and Accumulation Grading in Calculus I

LEARNING GOALS

Here is a sample of learning goals from my calculus I class in Fall 2014.

D-level goals

Learning Goal	A (1)	Q (2)	Q (3)	Q (4)
D6: I know when to use a limit.				
D7: I know when to use a derivative.				
D8: I know when to use an integral.				

CD-level goals

Learning Goal	A (1)	Q (2)	Q (3)	Q (4)
CD3: I can estimate limits from graphs.				
CD5: I can estimate derivatives numerically.				
CD7: I can use Riemann sums to estimate integrals.				

C-level goals

Learning Goal	A (1)	Q (2)	Q (3)	Q (4)
C1: I can identify the relationship between a function's value and its limit.				
C5: I can find derivatives using the definition of derivative.				
C6: I can sketch f , f' , or f'' given a graph of f , f' , or f'' .				

BC-level goals

Learning Goal	A (1)	Q (2)	Q (3)	Q (4)
BC5: I can use the Product Rule.				
BC8: I can take derivatives of polynomials and rational functions.				
BC9: I can take derivatives of trigonometric functions.				
BC16: I can find antiderivatives of exponential functions.				
BC17: I can find the equation of a tangent line.				

B-level goals

Learning Goal	A (1)	Q (2)	Q (3)	Q (4)
B2: I can use linear approximation.				
B3: I can find extrema.				
B6: I can determine intervals of concavity.				
B15: I can use FToCI.				
B16: I can use FToCII.				

AB-level goals

Learning Goal	A (1)	Q (2)	Q (3)	Q (4)
AB1: I can write δ - ϵ proofs for linear functions.				

A-level goals

Learning Goal	A (1)	Q (2)	Q (3)	Q (4)
A1: I can solve Related Rates problems.				
A2: I can write δ - ϵ proofs for quadratic functions.				

ACCUMULATION GRADING

Issues with Traditional Grading

- Grades lack intrinsic meaning.
- Students are expected to learn the course content at the same pace. Consider:
 - Student 1 gets 85% on all four exams.
 - Student 2 gets 100% on the first exam, 90% on the second, 80% on the third, and 70% on the fourth.
 - Student 3 gets 40% on the first exam, 100% on the second, 100% on the third, and 100% on the fourth.
- Grading does not give students feedback on how to improve.
- Grading is too "high stakes."
- Students encouraged to "bluff" for partial credit.
- Cramming is rewarded.
- There is not enough accountability to learning.

Accumulation Grading

- All grading is binary: students either get 100% on the assignment, or they get 0% on the assignment.
- Students are given multiple chances to demonstrate mastery of Learning Goals
- Students must "tag" an answer with a Learning Goal in order to get credit for it (metacognitive benefits?).
- Students must demonstrate mastery over time

Example

6. Find the equation of the line that is tangent to $f(x) = e^x + x$ at $(0,1)$.

$f'(x) = e^x + 1$
 $f'(0) = e^0 + 1 = 1 + 1 = 2$
 $y = 2x + b$
 $1 = 2(0) + b$
 $b = 1$
 $y = 2x + 1$

Benefits of Accumulation Grading

- Grades are based on what students know, rather than what they do not know.
- Students are allowed many chances to demonstrate mastery of material.
- Accountability: there is no substitute for learning the most important topics.
- Grades based on how much they know at *the end* of the semester

ASSESSMENT

Results

- Calculus Concept Inventory (CCI) pre- and post-test
- Similar to Force Concept Inventory (FCI) in physics
- Calculate "average normalized gains" of each class (the percentage of material the student learning *out of the material they did not already know*)

$$\langle g \rangle = \frac{\text{Final} - \text{Initial}}{\text{Total} - \text{Initial}}$$

- Sample question: If you know that a function $f(x)$ is positive everywhere, what can you conclude from that about the derivative $f'(x)$?
 - the derivative is positive everywhere
 - the derivative is increasing everywhere
 - the derivative is concave upward,
 - you can't conclude anything about the derivative

Results

- Typical "Traditional Lecture" classes have average normalized gains of 0.08–0.23 on CCI
- Typical "Interactive Engagement" classes have average normalized gains of 0.30–0.44 on CCI
- Recent courses at CSBSJU (B indicates my class):

n	26	22	19	15	5	23	21	8	2	26	15	20	20
$\langle g \rangle$	0.29B	0.24B	0.14	0.15	0.19	0.19	0.15	0.09	0.03	0.01	0.09	0.21B	0.14B

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- J. Epstein, Development and validation of the Calculus Concept Inventory, in *Proceedings of the Ninth International Conference on Mathematics Education in a Global Community*, September 7–12, 2007, edited by Pugalee, Rogerson, and Schinck
- J. Epstein, The Calculus Concept Inventory—measurement of the effect of teaching methodology in mathematics, *Notices of the AMS*, **60**(8), 2013, 1018–1026.
- J. Epstein, "Calculus Concept Inventory," Field-tested Learning Assessment Guide, http://www.flaguide.org/tools/diagnostic/calculus_concept_inventory.php.

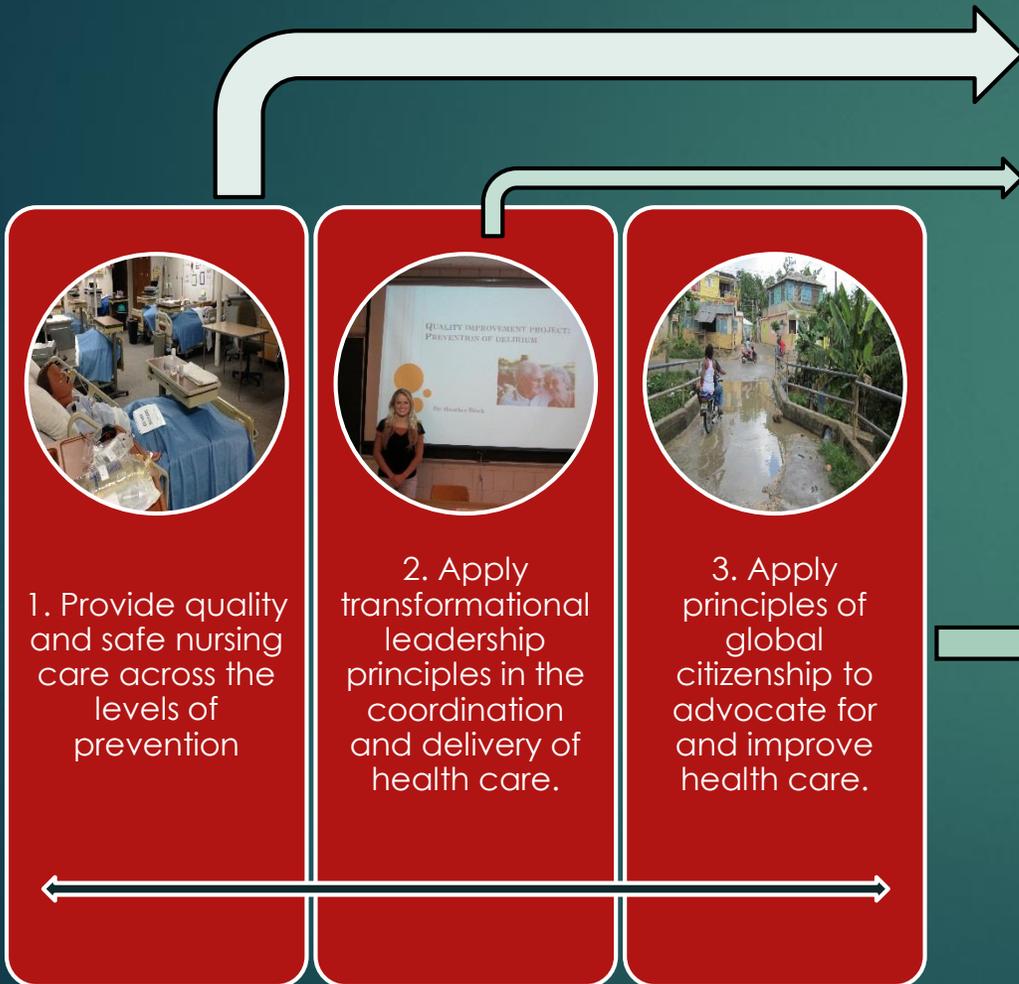
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Assessment and Evaluation in Nursing

Are nursing students achieving the learning outcomes for the major?



Example Methods of Evaluation	Expected Performance Level	Responsibility for completing	Time Frame	Actual Results
Clinical performance	Clinical assessment rubric: mean 3.5 or higher on a 1-4 Likert scale.	NRSG 395 (capstone) course faculty	Annually in Spring; report to faculty in Fall	TBA; data collection begins spring 2015
Educational Benchmark, Inc. alumni survey and employer satisfaction	Mean of 5.0 or higher on EBI on items related to transformational leadership	Assessment and evaluation committee	Annually in Summer; aggregate data and report every three years.	TBA; data collection begins summer 2015
Student exit survey at graduation	Mean of 3.5 or higher on questions related to global citizenship	Assessment and evaluation committee	Annually in Spring; report to faculty in Fall	TBA; data collection begins spring 2015

Additional Evidence

- ▶ National licensure exam (NCLEX) results
- ▶ Graduation and job placement rates
- ▶ Course evaluations
- ▶ Practice improvement and other targeted course projects

Assessing Student Learning in the Music Department

A Range of Strategies are used: Quantitative-Qualitative / Objective-Subjective

ETS Major Field Test Results

A standardized test taken by all music majors before graduation. Currently used by 138 schools nationwide.

	Overall Score		Listening Comprehension Sub-Score		Music Theory Sub-Score		Music History Sub-Score	
	Raw Score (/200)	Percentile Rank	Raw Score	Percentile Rank	Raw Score	Percentile Rank	Raw Score	Percentile Rank
Average for all 5,557 students who have taken test 2006-2013	147		48.5		47		48	
CSB/SJU Average 2006-2013	159	90	60	94	59	91	55	77
CSB Average 2010-2013	162	95	63	98	62	96	58	89
CSB/SJU Average 2006-2009	156	83	57	86	56	86	52	68

Conclusions:

- 1) The percentile rankings show that CSB/SJU students are doing very well in comparison with a broad range of students from other schools. (However, the data would be more telling if the comparison was with our close peers.)
- 2) CSB/SJU student scores have increased in recent years.

Assessment at Applied Juries

Music students perform before a jury of faculty at the end of each semester. They complete a form that asks for a self-assessment of their progress. The applied instructor adds comments after the performance. This is an excerpt from one such form.

Student Self-Assessment at the End-of-the-Semester Jury

1. What goals did you achieve in the course of this semester?
I improved the breath support that I use and I increased my range. I played a lot of lyrical pieces this semester and my expression improved. I focused on the phrasing and breathing.
2. Are skills or understandings gained this semester demonstrated in your jury performance?
In the etude, I am required to interpret the piece to find phrasing and breathing. Also this piece challenges me to focus on clarity of attacks and tone throughout.
3. List unanticipated learning outcomes (if any) gained this semester.
This semester I realized that instead of just playing the notes on a page, I am starting to think about what they are doing. I pay more attention to the chords that I am outlining melodically, or where I fit in harmonically.

Instructor's Comments

Excellent progress in tonal development and phrasing! Works diligently on any areas of concern and continuously progresses at a fast rate.

Student's level of repertoire and technique is (circle one)
below average / average / above average for the 3 semesters of MUSC 227/337.

Departmental Assessment Plan

Different content areas within the music department assess their curriculum, strengths and weaknesses, and student learning every five years on a rotating schedule. This is an excerpt from the most recent Composition Assessment Report prepared by the music composition instructors.

Overall Assessment of Student Work in Composition Projects 2005-2010

(Likert scale of 1-5 = poor-exceptional, where 3 = fully meets expectations for an undergraduate composer in a B.A. program.)

	Average of all MUSC 357 students	Average of Comp Majors only in MUSC 357 (and 359)
Invention of basic material	3.55	3.72
Development/elaboration	3.05	3.27
Structure/organization	3.00	3.27
Musicality	3.68	3.72
Creativity	3.38	3.82
Overall (average of above)	3.37	3.56

Notable student achievements during the assessment period

[Three composition students] completed musical compositions as honor theses and were awarded departmental distinction when they graduated. [One other] did not quite complete the honors thesis document, though his song cycle was successfully performed.

[Five students] have entered orchestral compositions in the Duluth Symphony's annual student composition contest. [One student's] piece, The Singing Bone, won in 2005-2006 and was performed by the Duluth Symphony on their Young Person's series.

This is our  sic.

Students' weakest skills are developing and elaborating their musical ideas and creating music that is well structured; structure becomes exponentially more challenging as they try to compose more extended works. This is hardly surprising as these are skills that are learned over time with experience. Nonetheless, could we be more effective in teaching these skills? Perhaps spending more time looking at scores by master composers in lessons would be helpful. Perhaps giving students more exercises on developing and elaborating material either in lessons or as outside assignments would also be fruitful.

The Air We Breathe: Continual Assessment for Meaningful and Enduring Learning

Terry Johnson, Jeanne Cofell, Catherine Bohn-Gettler
Education Department

Representative Outcomes

EDUC 390: Ethics in Human Relations: Ethics in the News

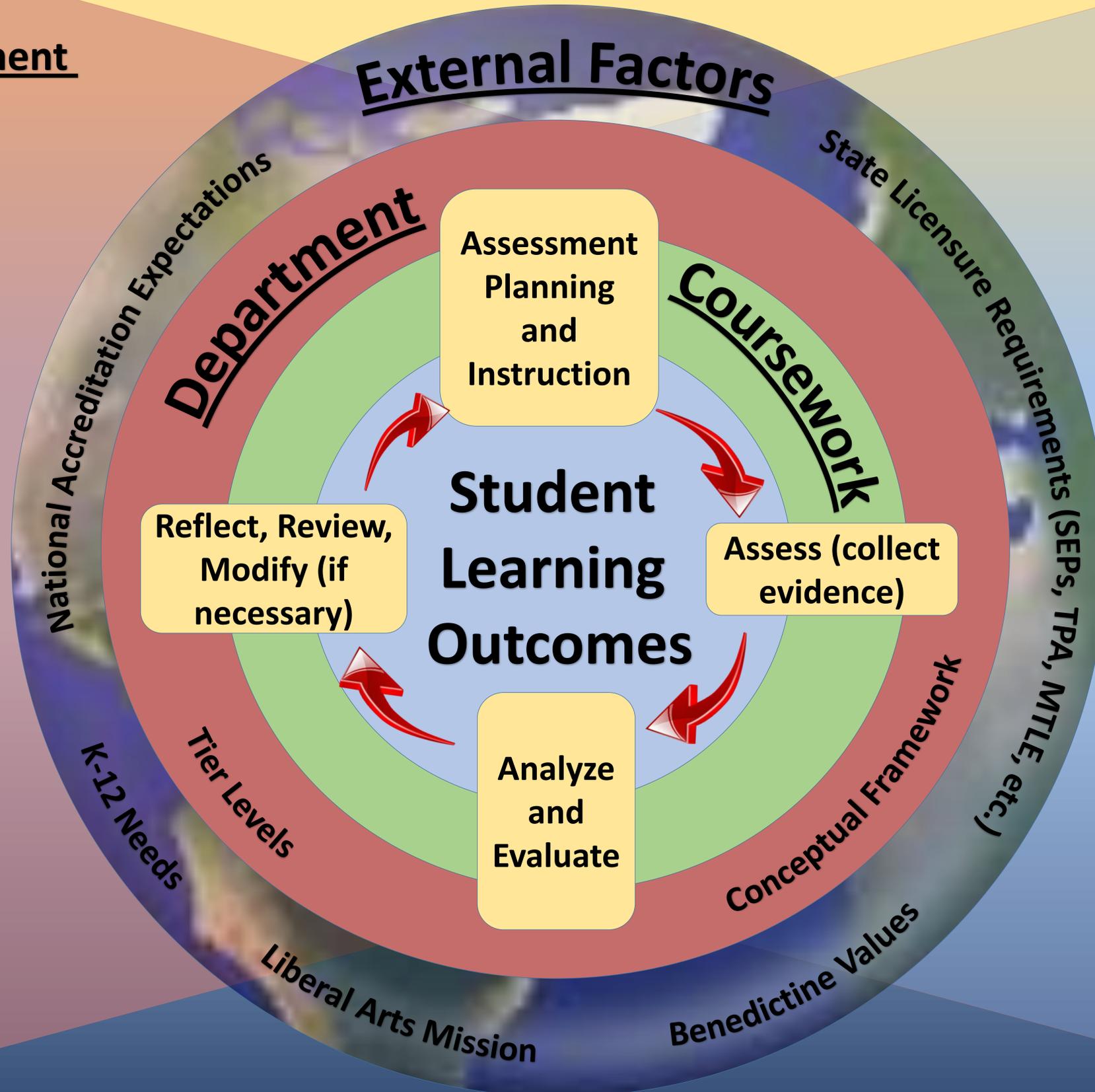
- The student will identify and effectively describe ethical issues or concerns within some life situation
- The student will identify, describe, and take seriously different ethical perspectives in the life situation considered
- The student will provide reasonable arguments for the position taken in regard to the ethical concern and ground arguments in a systematic ethical perspective

EDUC 355 - Social Studies Pedagogy: Modified Teacher Performance Assessment

- The student will apply knowledge of content, students, pedagogy, assessment, and theory when developing and teaching curriculum materials
- The student will analyze and use assessment data and reflection to evaluate overall effectiveness & plan future instruction

EDUC 310 - Educational Psychology: Team Teaching Project

- The student will plan and teach a lesson incorporating a performance assessment
- The student will demonstrate, and reflect on, the use of behavioral, cognitive, and motivational principles during teaching
- The student will design and use a performance assessment rubric, and reflectively evaluate its effectiveness



Education Department Tier Levels

Tier 3: Capstone

Demonstrate a synthesis of professional standards in practice in professional communities



Tier 2: Pedagogy

Objective: Immersion in discipline-specific professional practice at appropriate licensure levels

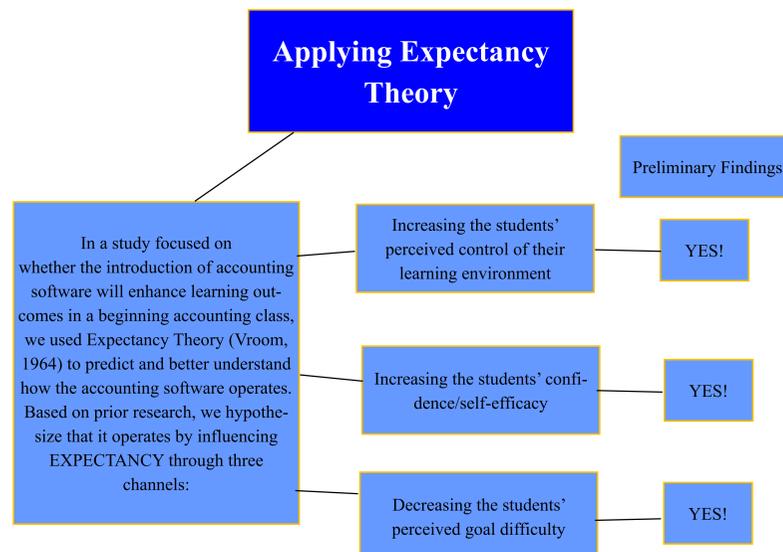
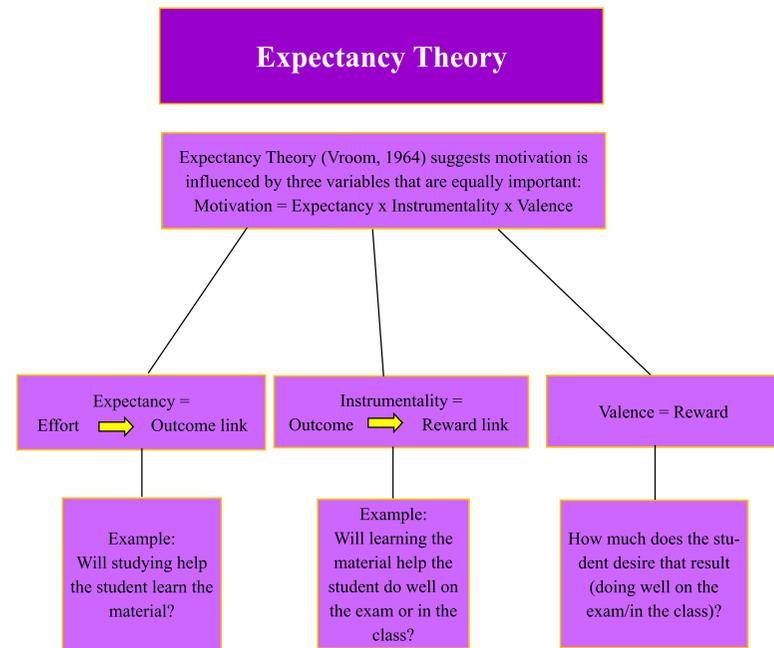


Tier 1: Foundations

Objective: Immediate and practical experiences, some with at risk students, interact in professional communities, develop knowledge frameworks for clinical integration with P-12 students

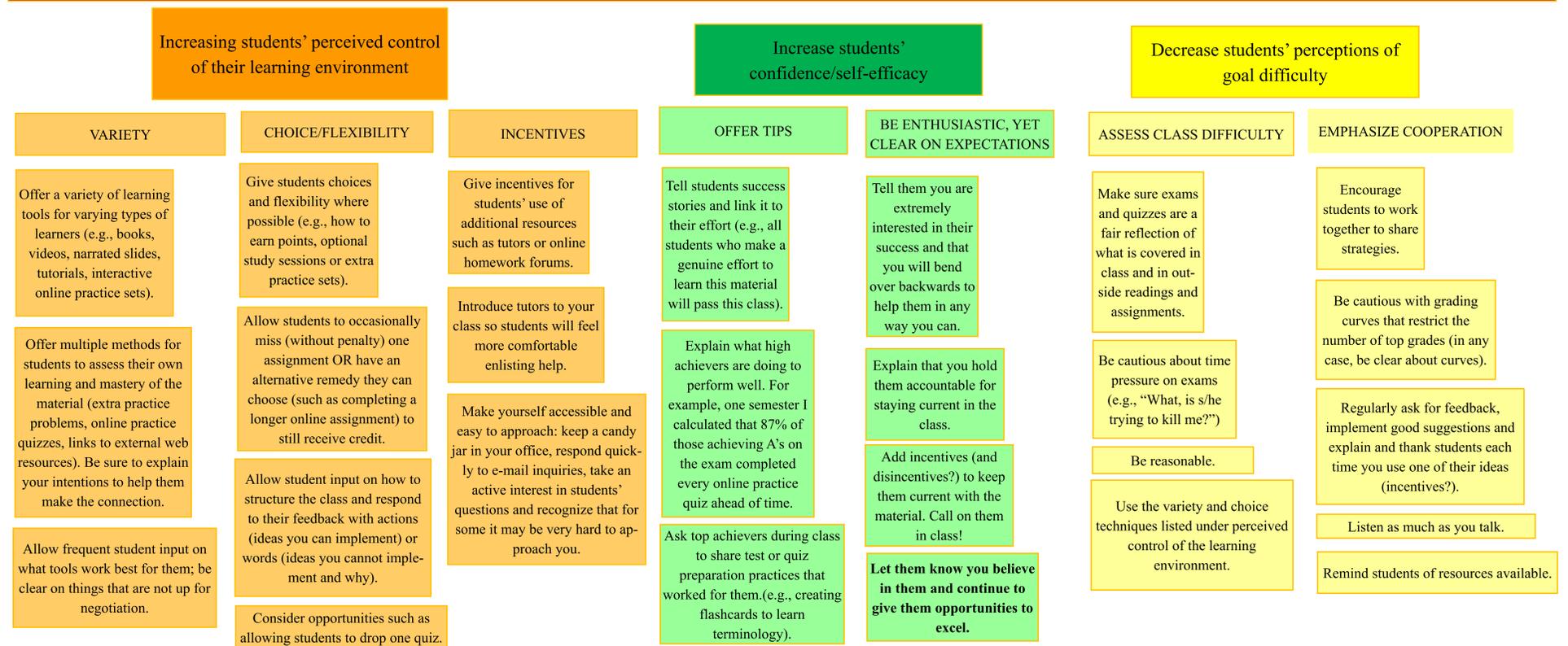
TOOLS OF THE TRADE: HOW TO MOTIVATE YOUR BEGINNING ACCOUNTING STUDENTS

JANEAN KLEIST, COLLEGE OF ST. BENEDICT/ST. JOHN'S UNIVERSITY
 AMERICAN ACCOUNTING ASSOCIATION ANNUAL MEETING, AUGUST 2014

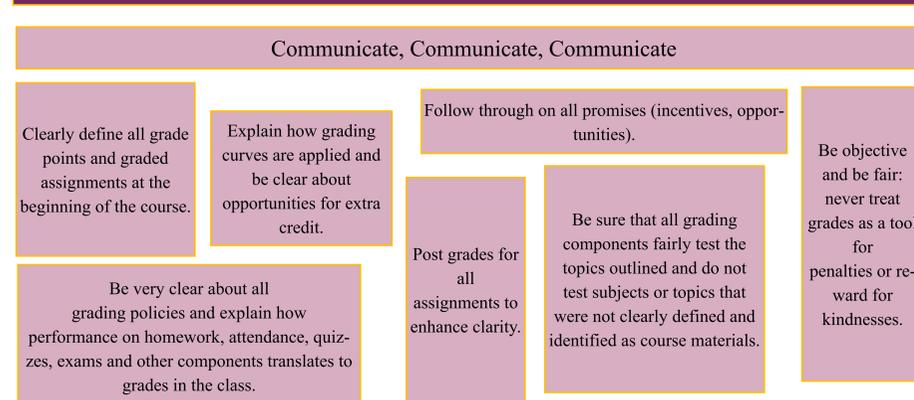


Vroom, Victor Harold. *Work and Motivation*. New York: Wiley, 1964. Print.

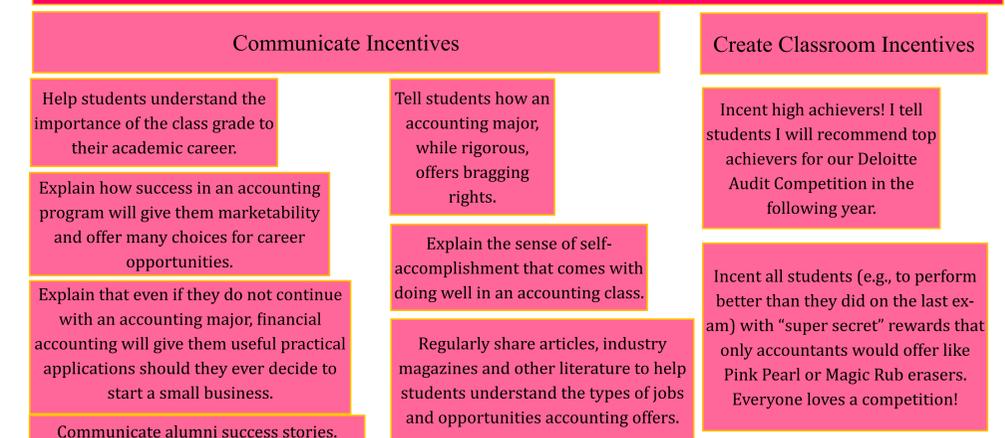
Motivating Students: How to Influence Expectancy—the Effort to Outcome Link



Motivating Students: How to Influence Instrumentality—the Outcome to Reward Link

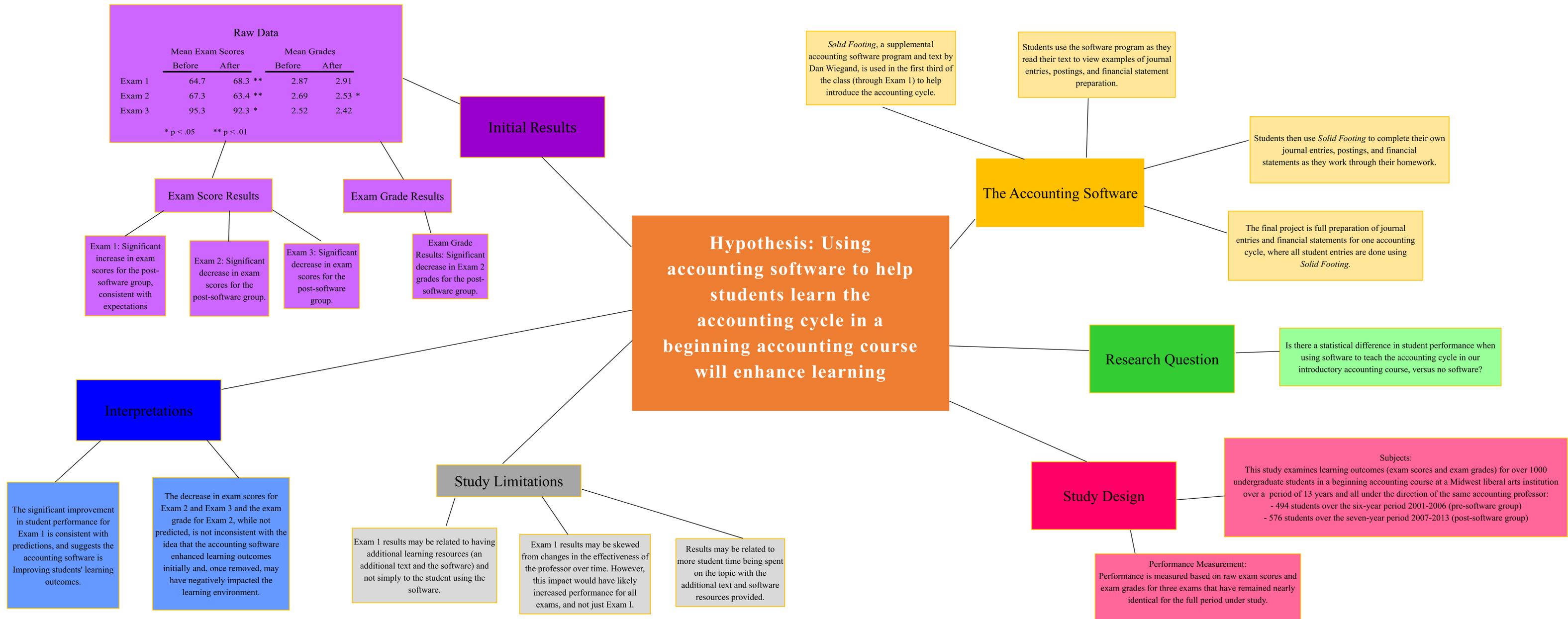


Motivating Students: Valence



USING SOFTWARE TO TEACH THE ACCOUNTING CYCLE IN INTRODUCTORY ACCOUNTING: HYPE OR EFFECTIVE?

JANEAN KLEIST AND MICHELLE LI-KUEHNE, COLLEGE OF ST. BENEDICT/ST. JOHN'S UNIVERSITY
 AMERICAN ACCOUNTING ASSOCIATION ANNUAL MEETING, AUGUST 2014



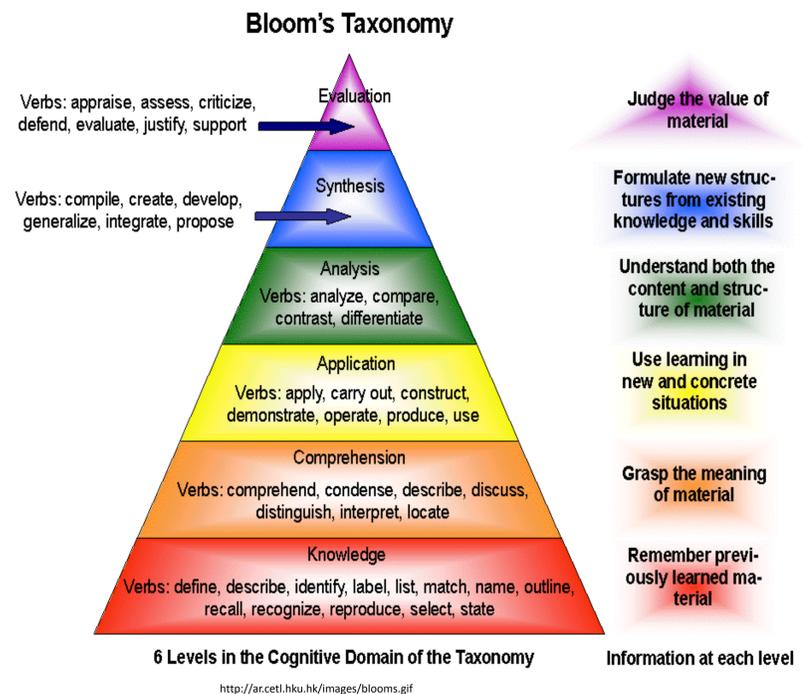
Are Students Achieving Higher Level Thinking in a upper level Biology course?

Barbara May
Biology Department

What do we want our students to learn?

Upper level coursework in Biology is completed not only by Biology majors but other majors whose interest is a career in health. Microbiology (BIOL307) is a course required or recommended for many graduate schools including training to become a Physician Assistant, Physical Therapy, Dental school, as well as PhD programs in Microbiology and Immunology. Highlighted here are learning goals for students completing this upper-level Microbiology course. While a certain knowledge base is expected as students complete Microbiology, this knowledge base is continually expanding as technological advances and research continues. This means all content cannot be provided in a single semester. Thus, students must develop a capability to think and learn independently so when exposed to research information or new scientific concepts, they are able to process, understand and apply this material. Presented here are mechanisms to assess and help students reach these levels of higher level thinking while also providing comprehensive knowledge.

At what level do we expect student learning?



What are the learning goals for a Microbiology course at these different levels of learning?

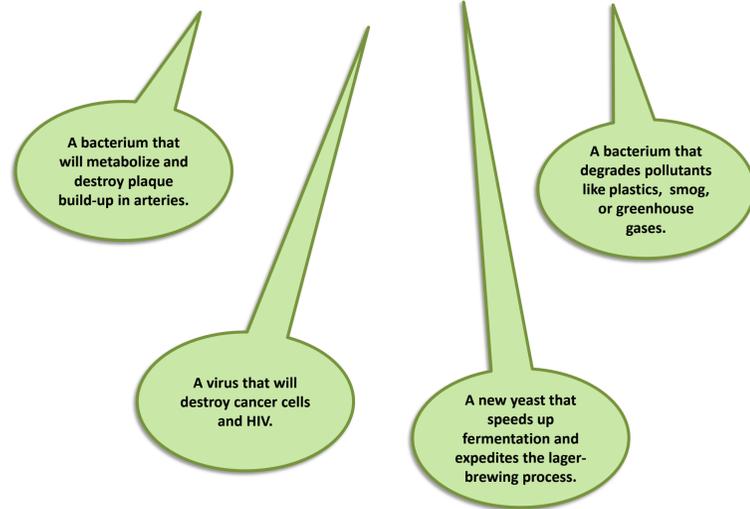
How do we assess learning in Microbiology?

Higher level thinking:

- Apply microbiology concepts to predict and evaluate the impact that microorganisms have in our everyday lives and on the planet. This will include their role in infectious disease, nutrient cycles, evolution, and ecosystem structure.
- Identify, practice and apply the basic process of science with the following:
 - Evaluate experimental data and apply this data to our understanding of microbiology.
 - Predict the outcome of scientific experimentation.
 - Design experiments to test your predictions.
 - Apply microbiology concepts to current issues.

Higher-level thinking assessment:

Hypothetically design a synthetic microbe that will impact humanity or the planet. Describe its physical, metabolic and genetic structure. Explain how its function will impact humans and the planet. Evaluate the ethical considerations in the design and use of this microbe.



Can they apply and use these concepts to understand, develop and evaluate scientific research?

Do students have an understanding of the concepts?

Comprehension:

- Compare and contrast the different, major groups of microorganisms. How does their basic structure and cellular differences relate to their differences in function?
- Compare and contrast metabolic pathways that a microorganism and what this means for its survival in different environments?
- Describe the evolutionary process for a prokaryote. How does horizontal gene transfer impact its evolution? This includes the processes of reproduction and horizontal gene transfer.
- Identify and predict mechanisms for microbial control. How do antibiotics work?
- Identify and practice key research skills utilized in the field of microbiology.

Comprehension assessment:

Formative assessment:

- In class concept maps
- In class comparative tables
- In class application: scenarios that require content knowledge:

Summative assessment:

Multiple choice and short answer exams/quizzes

EXAMPLE OF AN IN-CLASS ASSIGNMENT:

Desulfurococcus mobilis: This is an archaea that lacks a cell wall, but contains an S-layer. This S layer is thought to be somewhat flexible in nature to help in changes in salt concentrations in the environment. Its cell membrane is full of diethers (as shown below). Its optimal growth is at 85C and its major mechanism for ATP production is through sulfur reduction and can tolerate acidic conditions. It commonly uses sugars to be oxidized during ATP production.

Question 1: What are the survival requirements for this microbe?
Question 2: Draw this microbe's mechanism for ATP production.
Question 3: What environment might you expect this microbe to live in?

Exercise Science and Sport Studies Department

Departmental Goals

1. Scholarly inquiry and analysis
2. Written communication
3. Oral communication
4. Ethical decision making
5. Preparation for graduate study or employment in exercise and sport related fields

**Learning Goal of Interest
 Inquiry and Analysis**

A student that graduates from CSB/SJU with a minor degree in Exercise Science and Sport Studies will demonstrate the ability to effectively engage in scholarly inquiry and analysis in the area of Exercise Science and Sport Studies.

Assessment Method #1: Student Achievement Data

Inquiry and Analysis: Mean Content Area Scores for 4 ESSS Courses

Area of Evaluation	Mean Score (± St. Dev)
Topic selection/ Research question	2.5 out of 3 (± 0.53)
Existing knowledge, research, and/or views	2.5 out of 3 (± 0.53)
Research design	2.1 out of 3 (± 0.54)
Analysis and Discussion	2.5 out of 3 (± 0.46)

Assessment Method #2: Student's Perception of Learning

Inquiry and Analysis: Survey of Graduating Seniors

Area of Evaluation	N = 14	Mean Score (± St. Dev)
Perceived opportunity to engage in undergraduate research in the ESSS department	n = 14	3.72 out of 4 (±0.47)
Curriculum prepared students for their undergraduate research	n = 7	3.57 out of 4 (±0.53)
Importance of undergraduate research in overall academic development	n = 7	3.43 out of 4 (±0.5)
Undergraduate research experience helped develop important professional skills	n = 7	3.57 out of 4 (±0.53)
Supervision and support they received in conducting the research was helpful and adequate	n = 7	3.57 out of 4 (±0.53)

Assessment Method #4: Third Party Evaluation

Accepted Conference Abstracts [Presentations (Student Presenters)]

(*) Projects awarded Undergraduate Research Awards

Year	Scholarship & Creativity Day	Northland Chapter of the American College of Sports Medicine	American College of Sports Medicine National Meeting
2010	16 (25)	0	0
2011	5(17)	2(7)	0
2012	8(19)	7(14) (3*)	1 (4)
2013	8(25)	5(16)	4 (7)
2014	14 (17)	7(13) (2*)	0
2015	TBD	TBD	2 (4) Abstracts in Review

Assessment Method #3: Graduate's Perception of Learning

Inquiry and Analysis: Survey of Recent Graduates

**** To be completed 2017-2018**

Conclusion:

- ESSS students demonstrated acceptable to exceptional Inquiry and Analysis skills, which correspond to a level consistent with the greater professional community.
- Students recognize the value of undergraduate research in enriching their educational experience and feel supported as they engage in the process.
- All undergraduate research projects involved experimental designs and pertained to natural science related topics.

Department Response:

- Continue to emphasize Inquiry and Analysis skills in the curriculum and encourage students to engage in undergraduate research.
- Encourage more social science and humanities research using non-experimental designs (example: develop new course intended to emphasize survey-based research).

Student Learning Outcomes

Office of Academic Review and Curricular Advancement

By: Megan Lampel, Zainab Oke, Emily Schroeder, Katherine Thao, Anya Winkler
College of Saint Benedict and Saint John's University

Senior Leadership Development by Major

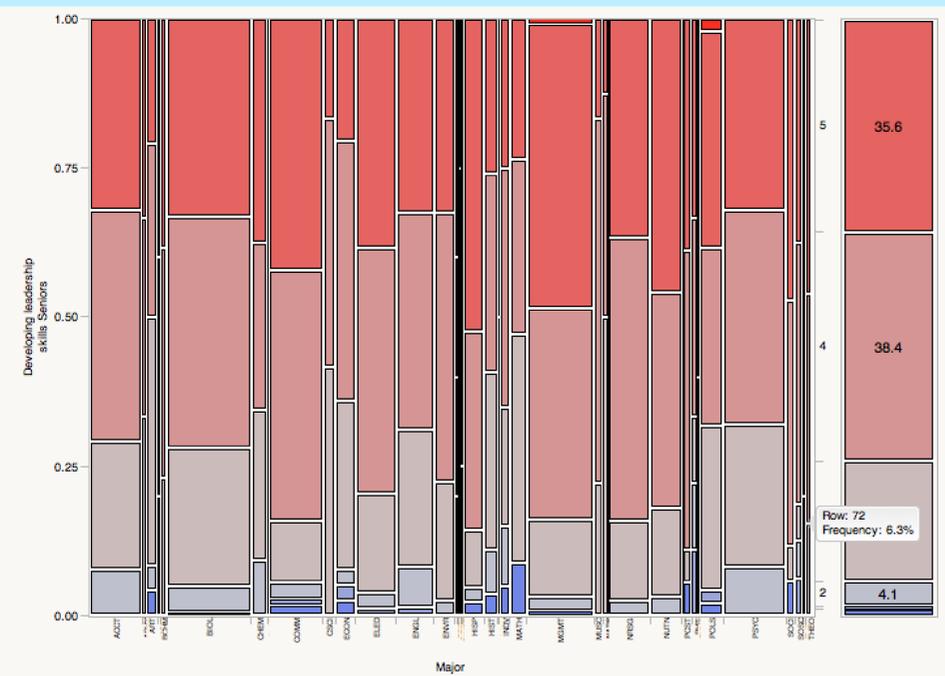


Figure 1:

- Seniors of all majors similarly reported they developed leadership skills throughout their time at CSB/SJU
- 74% of seniors reported they developed their leadership either "quite a bit" or "very much"

High School GPA by Senior College GPA

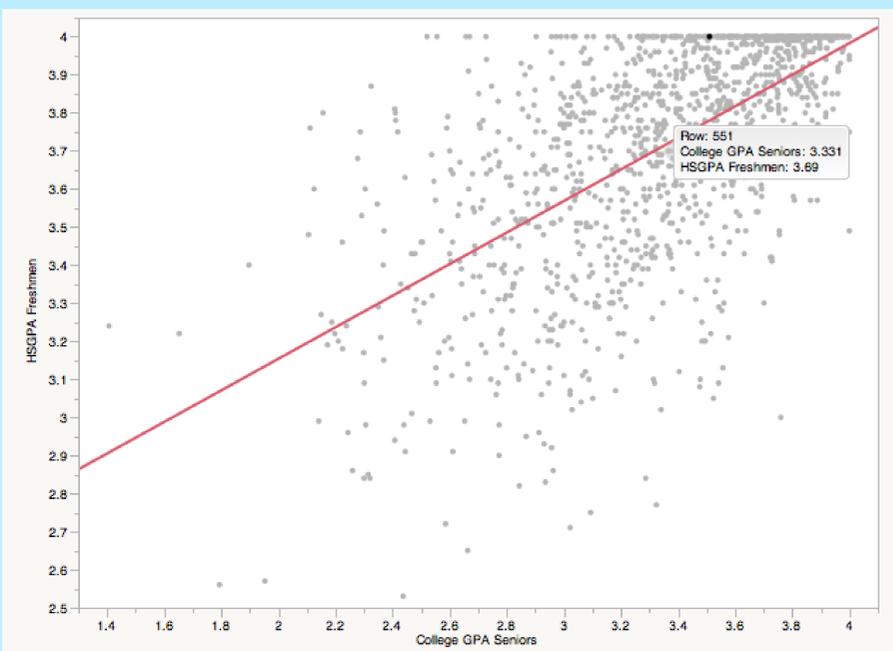


Figure 2:

- Positive linear relationship between High School GPA and College GPA

Purpose

Assess data from freshman and senior surveys to explore student learning outcomes at CSB/SJU.

Methods

- Used data from 2011-12, 2012-13 senior surveys and corresponding freshman in 08, 09, 10 freshman surveys
- Coded data for JMP analysis
- Selected five questions that best represented student learning outcomes
- Aggregated freshman responses from all three years and repeated the process for senior responses
- Completed data analysis

Senior Critical and Analytical Thinking by Campus

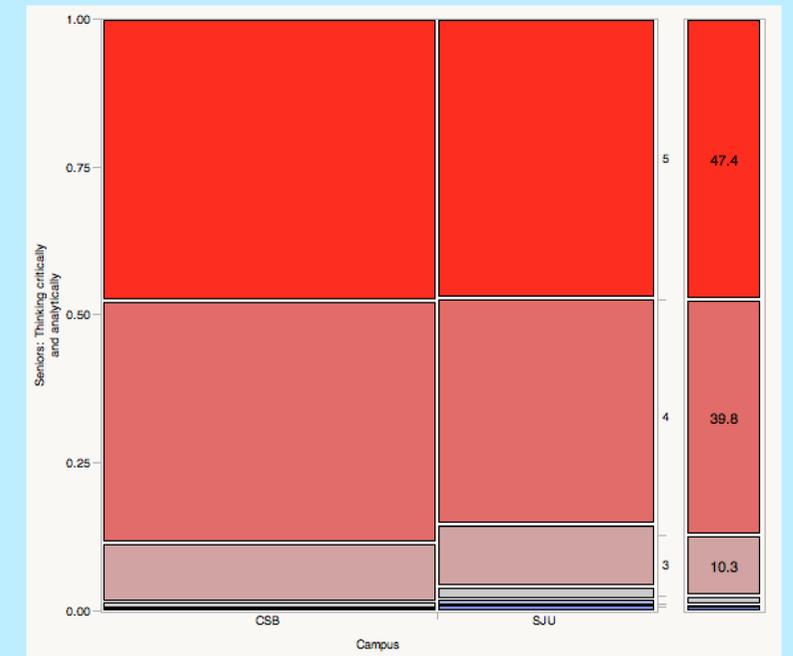


Figure 4:

- CSB and SJU students were both likely to report they developed critical thinking and analytical skills
- Seniors on both campuses reported they developed both critical and analytical thinking skill over the course of their college education

Senior Ethical and Moral Development by Campus

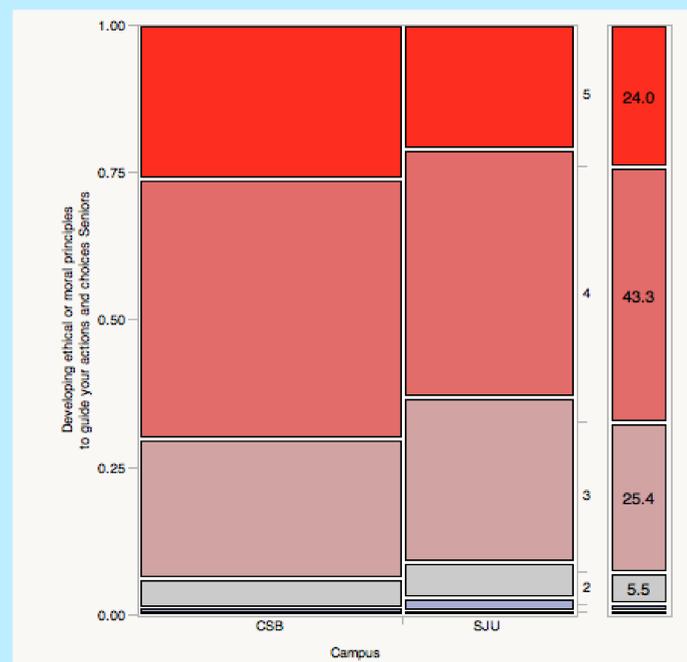


Figure 3:

- The figure above shows the overwhelming majority of CSB and SJU students reported their ethical and moral principles were developed over the course of their college education

Senior GPA by Hours Spent Preparing for Class

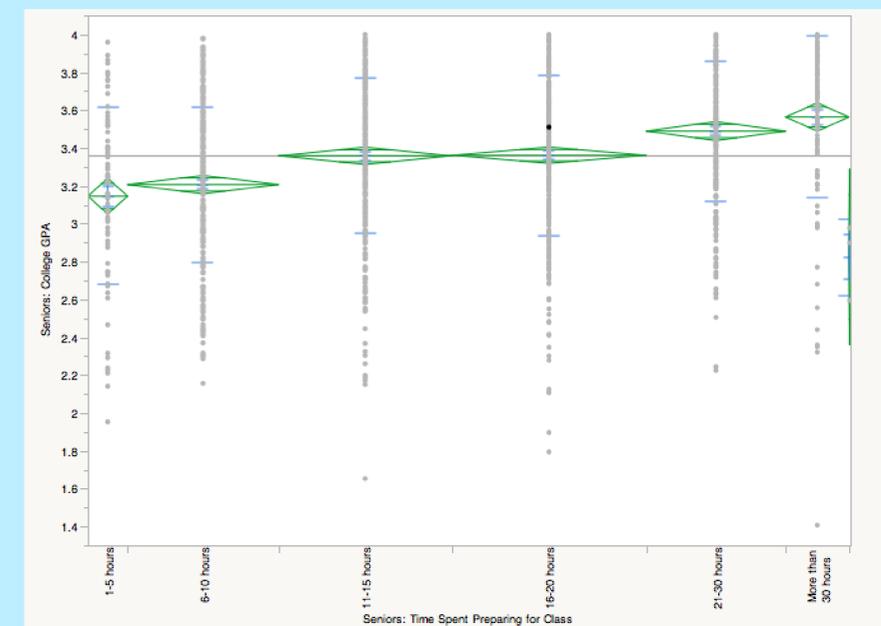


Figure 5:

- Positive relationship between college GPA and the amount of time spent preparing for class

Re-designing a Major: Management (MGMT) to Global Business Leadership (GBUS)

Dr. Sanford Moskowitz (chair, GBUS Department)

Dr. Lisa M. Lindgren (chair, Assessment Committee, GBUS Department)

Background

We, the faculty of the MGMT/GBUS Department, underwent Program Review during 2009 and 2010. As a result of that process, we fundamentally changed the major and minor. We additionally changed the name of the major/minor and the department from Management to Global Business Leadership.

The new major and minor are focused on two major goals: make sure that each major and minor is grounded in key concepts and skills in business, and ensure that each major and minor has a global awareness and understanding of operating in a global business environment.

The New Curriculum

A hallmark of the new curriculum is the Sophomore Experience. Sophomores take 16 credits of classes in a cohort group that provide a solid grounding in qualitative and quantitative subjects and that also require students to demonstrate effective communication and group skills.

The topics in the Sophomore Experience (required of all majors and minors):

GBUS 210: Strategic Environment of Business, Intercultural

Management, Creativity and Innovation in Organizations

GBUS 220: The World of Business Leadership, Ethics in

Global Business Leadership, Global Management Principles

GBUS 230: Introduction to Business Statistics, Business

Communication, Research Methods

GBUS 240: Finance, Using Excel, Data Analysis

A required course of all majors and minors:

GBUS 300: Global Enterprise

All majors must additionally take:

- Three of four core courses: GBUS 311 (Human Resources), GBUS 321 (Marketing), GBUS 341 (Operations & Supply Chain), GBUS 361 (Law & Business)
- 4 credits of GBUS electives
- 4 credits of Internship or student leadership experience
- GBUS 381 (Advanced Global Strategy)

Learning Goals and Assessment Plan

As a part of the Program Review process, we committed to five major learning goals and a multi-year plan to assess student learning against these goals. The learning goals for majors/minors are as follows:

GBUS Learning Goals:

1. Effective global leadership skills
 - 1.1 Effective communication
 - 1.2 Effective collaboration
 - 1.3 Critical thinking
2. Integrative depth of knowledge
3. Ethical problem-solving
 - 3.1 Recognize ethical issues
 - 3.2 Apply ethical frameworks
4. Recognize opportunities for innovation, create response
5. Demonstrate global mindset

The multi-year plan for assessment:

2012 – 2013 Goals 1,5: GBUS 2XX

2013 – 2014 Goals 1, 3, 4: GBUS 300

2014 – 2015 Goals 1, 2, 5: GBUS 381

2015 – 2016 Goals 1, 2, 3, 4, 5: GBUS 2XX, 381

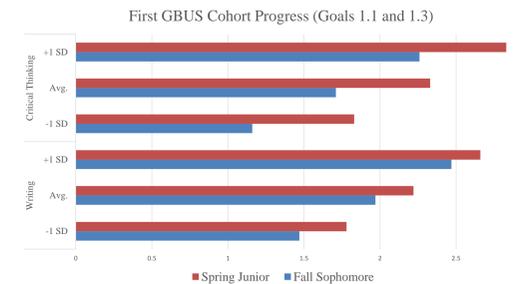
2016 – 2017 Goals 3, 4: GBUS 300, all core (this is our self-study year for the next program review)

Assessment Results

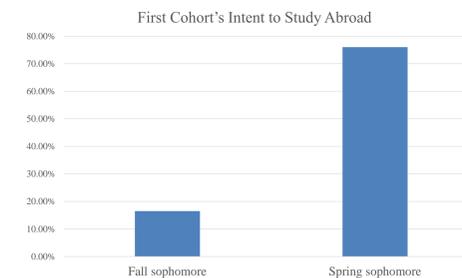
The first cohort of the new major were sophomores in the 2012 – 2013 academic year and are graduating this year. We captured assessment data during their sophomore and junior years, and will capture data during the spring semester of their senior year (Spring 2015).

The faculty members of the department wrote a detailed rubric for each of the learning goals. The rubric defined what attainment of that goal would be described as at three different levels of mastery: novice, intermediate, and mastery (1 to 3). It is hoped that students progress from lower to higher levels of mastery as they progress through the program.

The rubric was used to assess writing and critical thinking skills (Goals 1.1 and 1.3) in the fall of sophomore and spring of junior years, and progress was noted at all levels (average, above average, and below average).



The global mindset of students was imperative in the design of the new major. One measure of global mindset was the intention of students to study abroad during their time at CSB/SJU. We saw a major increase in our majors'/minors' intent to study abroad in the first cohort. We asked students in the fall and spring of their sophomore year to indicate their intent. The rise in intent was dramatic.



In addition to the change in numbers, there was a shift in the types of study abroad programs being considered. While the London, Greco/Roman, and Australian programs remained popular with our students, an increasing number were considering more “challenging” programs such as Chile, India, and China.

Global Internships

GBUS majors have participated in or will be participating in internships globally:

- China
- London
- India
- Bosnia/Herzegovina
- Chile

Global Courses

In addition to courses that our students may take for credit at our global study-abroad partner institutions, CSB/SJU students may take GBUS elective classes in:

- Doing Business in Asia
- Doing Business in Europe
- Doing Business in Latin America (2015)
- Doing Business in Africa (2016)

Globally-Experienced Faculty

The GBUS faculty at CSB/SJU have very rich global experience.

- Prof. Jean Didier – Studied in Europe, led a London study-abroad program
- Dr. Bob Gazich – Traveled to Bosnia/Herzegovina, oversaw summer internships there
- Prof. John Hasselberg – Extensive experience in Nordic countries and China, teaches Doing Business in Europe
- Prof. Wendy Klepetar – Multiple trips to India, teaches Doing Business in Asia
- Dr. Lisa Lindgren – Business experience in Europe and Australia, Latin America focus, will teach Doing Business in Latin America
- Dr. Paul Marsnik – Extensive experience in China
- Dr. Sanford Moskowitz – Extensive business and academic experience in Europe and China
- Prof. Kingshuk Mukherjee – Native of India, very extensive business experience in Europe, Asia, and Africa
- Prof. Margrette Newhouse – International banking background, traveled to India
- Dr. Deborah Pembleton – Extensive international business experience, expertise in Asia
- Prof. Steve Schwarz – International business experience
- Dr. Tony Yan – Native of China, extensive international academic work

Tracking the Development of Philosophical Dispositions

Spring 2013 Pilot Sample from
CSB/SJU Student Body

Total N = 528

By: Charles Wright, Ph. D.
Department of Philosophy
with the assistance of:

Abraham Lauer, SJU 2013; Joshua St. George, SJU 2013; Bryan Van Der Heiden, SJU 2014

Comparison of Alpha Values

# PHIL	0	1	2	3	4	5	6	>6
N	266	151	43	12	8	20	10	18
%	50.4	28.6	8.1	2.3	1.5	3.8	1.9	3.4

- Definition of *disposition*: tendency or propensity to respond to philosophically salient situations by adopting a particular stance, orientation or attitude.
- The CSB|SJU Philosophy Department believes that our curriculum and pedagogy should foster or elicit certain philosophical dispositions.

Measure	Sample					
	2009†		Spring 2011		Spring 2013#	
	α	N	α	N	A	N
CA	.458	11	.604	6	.792	7
CR	.656	9	.565	5	.763	7
RQA	.664	9	.466	5	.773	6
PDI	.689	7	.790	5	.842	6

† Combines two samples: April 2009, students in philosophy classes & October 2009, students with no experience in philosophy.

Using only the 26 stems kept after data reduction.

Four Target Dispositions

1. Comfort with ambiguity (CA)
2. Charitable Reading (CR)
3. Resisting the urge to settle for quick and easy answers (RQA)
4. Pleasure in the struggle with difficult ideas (PDI)

Comfort With Ambiguity

➤ Developing comfort with an inescapable feature of the human condition – that it is possible to understand some kinds of issues more fully without ever being able to establish a single final and correct answer.

➤ Sample Stem: It bothers me when different perspectives on an issue all seem equally valid. (R) (7 items total)

Charitable Reading

➤ The practice of considering an author's ideas in their strongest and most convincing form, of trying to understand an idea or argument from the perspective of someone who would accept it as true.

➤ Sample Stem: When an author's writing contradicts my own thinking, my impulse is to read it again more carefully. (7 items)

Resisting the Urge to Settle for Quick and Easy Answers

➤ A disposition to look past first impressions and commonsense conclusions to search for underlying assumptions, unfamiliar perspectives, and their own unexamined ideas.

➤ Sample Stem: – I feel like people who disagree with me make me look more seriously at perspectives I'd otherwise dismiss. (6 items)

Pleasure in the Struggle with Difficult Ideas

➤ Philosophical ideas challenge conventional perspectives on truth, reality, and the good. Making sense of them is as a result frequently difficult for students.

➤ Sample Stem: If I have to struggle to understand a subject, learning just becomes a chore. (R) (6 items)

Group	N	Mean	Dif	Std Dev	Prob > t
4/less	478	24.48	4.73	5.25	P < .0001
5/more	48	29.21		5.49	

Group	N	Mean	Dif	Std Dev	Prob > t
4/less	478	30.34	2.95	4.31	P < .0001
5/more	48	33.29		4.03	

Group	N	Mean	Dif	Std Dev	Prob > t
4/less	478	26.68	1.74	3.90	P < .0034
5/more	48	28.42		3.94	

Group	N	Mean	Dif	Std Dev	Prob > t
4/less	478	23.35	4.44	5.31	P < .0001
5/more	48	27.79		5.02	