SCHOLARSHIP OF TEACHING AND LEARNING (SOTL) SHOWCASE

LIGHTNING TALKS

SHIFT IN HIGHER EDUCATION

from disseminating knowledge.

to cultivating learning.

LIGHTNING TALK

- 5 minutes Highlights
- Start a conversation

... longer conversations

SOTL FACULTY LEARNING COMMUNITY



Kelly Schrum, Jill Nelson, Jessica Rosenberg

CAMPUS CHALLENGES AS A CATALYST FOR CREATIVE CURRICULUM REVISION

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OVERVIEW & GOALS

- Why the Lecture-Lab-Speech Lab model?
 - Classroom shortages
 - Content expertise & consistency
 - Manageable instructor development and mentoring
 - Communication Center as a new resource

New Format for COMM 101

Traditional Format

Face-to-face course with all content, readings, discussions, activities, interviews, group work, and presentations Media-rich online lecture: content overview, readings, TED talks, model speeches, video analysis, pre-class activities

Interactive face-to-face lab: discussion, activities, interviews, group work, presentations

Communication Center: individualized communication skills coaching

GEORGE MASON UNIVERSITY

ORAL COMMUNICATION COURSES

- COMM 100: Public Speaking
 - Face to face
 - Fully online (DL)
- COMM 101: Fundamentals of Communication Public Speaking, Interpersonal, and Small Group
 - Face to face
 - Pilot lecture/lab format

OUTCOMES

Blind-coded Explanatory Speech Performance

- Total score
- Introduction
- Body
- Conclusion
- Overall Impression
- Delivery

Course Performance

- Attendance
- Final Exam
- Final Grade
- DFW rates

Self-Report Measures

- Belongingness
- Efficacy
- Engagement
 - Behavioral
 - Agentic
 - Cognitive
 - Emotional
- Communication Apprehension (PRCA)
- Interpersonal Communication Competence (ICCS)
- Communication Competence (CCAI)

Very few significant differences

COMM 100 FTF VS COMM 100 DL

COMM 100 DL was stronger in the following:

- Speech Performances:
 - Introductions: *t* (130) = -2.08, *p* = .04
 - Conclusions: *t* (130) = -2.18, *p* = .03
- Behavioral engagement: *t* (259) = -2.12, *p* = .04

DFW rates:

- COMM 100 ftf: 12%
- COMM 100 DL: 22%

COMM 100 FTF VS COMM 101 FTF

COMM 100 was stronger in the following:

• Final exam: *t* (1047) = 6.61, *p* < .001

COMM 101 was stronger in the following:

- Behavioral engagement: t (644) = -2.10, p = .04
- Cognitive engagement: t (644) = -2.20, p = .03

DFW rates:

- COMM 100 ftf: 12%
- COMM 101 ftf: 10%

COMM 101 FTF VS COMM 101 LL

No Communication Center during pilot last spring

COMM 101 LL was stronger in the following:

Speech Performance:

- Introduction: *t* (148) = -2.49, p = .01
- Body: *t* (148) = -2.13, p = .04
- Overall impression: *t* (148) = -2.62, p = .01

Attendance: *t* (789) = -2.69, p = .007

Higher engagement on all types

- Overall engagement: *t* (500) = -3.00, p = .003
- Behavioral: *t* (500) = -3.19, p = .001
- Agentic: *t* (500) = -2.81, p = .005
- Cognitive: *t* (500) = -2.24, p = .026
- Emotional: *t* (500) = -2.45, p = .015

DFW rates:

- COMM 101 ftf: 10%
- COMM 101 LL: 15%

CONCLUSION

- All formats are working, but COMM 101 LL shows the most promise
- Communication Center
- Hope to eventually move to all COMM 101 in the future
- Campus challenges can be a catalyst for creative curriculum design





Username * tkelly7 Password * • Request new password Log in Navigation

Welcome to ISSoTL

The International Society for the Scholarship of Teaching & Learning (ISSOTL) serves faculty members, staff, and students who care about teaching and learning as serious intellectual work. The goal of the Society is to foster inquiry and disseminate findings about what improves and articulates post-secondary learning and teaching.

ISSOTL hosts an annual conference and publishes *Teaching & Learning Inquiry*.

INTERESTED IN JOINING ISSOTL? JOIN HERE TODAY

REVIEWING #ISSOTL18 PROPOSALS? CLICK HERE to LOG INTO THE CONFERENCE SYSTEM



EuroSoTL-ren Europako hirugarren Biltzarra Euskal Herriko Unibertsitatean (UPV/EHU) ospatuko da. Hauek izango dira landuko diren gai nagusiak:

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- Nola lagundu dezakegu SoTL indartsu haz dadin?
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- Zein lotura garatu beharko luke SoTL-ek?

The third European Conference of EuroSoTL will take place in the University of the Basque Country (UPV/EHU). The main topics will be:

- Which are the unexplored fields for SoTL?
- What do we expect to get from through SoTL?
- How can we help SoTL grow robust?
- How does SoTL help students and institutions grow?
- · Which are the alliances SoTL should build?

La tercera Conferencia Europea de EuroSoTL se celebra en la Universidad del País Vasco, UPV/EHU. Los temas principales a tratar son:

- · ¿Cuáles son los campos inexplorados por SoTL?
- ¿Qué se espera lograr a través de SoTL?
- ¿Cómo podemos favorecer un desarrollo robusto de SoTL?
- ¿Cómo favorece SoTL el crecimiento del alumnado y las instituciones?
- ¿Qué alianzas debería construir SoTL?





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SOTL in the S University of Johannesbu	
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eakers Pre-conference Workshops Registration	Information Programme
	Important Dates
urg, in collaboration with colleagues at other will host an international conference, which of teaching and learning in the global South.	First call for abstracts 22 August 2016 Second call for abstracts
vative research methods, new findings and feature rovocative debates.	28 October 2016 Abstract submission due (x1) 01 December 2016 Abstract submission due
p of Teaching and Learning (SOTL) in the South?	(x2) 15 February 2017
in higher education has gained momentum and credibility of means to enhance teaching and learning and to support in regard to their teaching role. It is also a means to teaching and learning in higher education. The scholarship hificant momentum in Southern Africa. Many universities al support behind this scholarly activity and it is time to ements. Since the #Fees must fall and #Rhodes must fall here has been a growing debate in South Africa about the rricula, and an interest in looking towards the South for	Notification of acceptance (x1) 01 February 2017 Notification of acceptance (x2) 15 March 2017 Full paper for proceedings 01 May 2017 Acceptance of full paper and/or suggestions for
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HOME EVENTS MEET OUR MEMBERS JOIN OUR COMMUNITY RESOURCES ABOUT





Meet Our Members – Henk HUIJSER (Queensland University of Technology, Australia)

Henk is a Curriculum Designer in the Learning and Teaching Unit at Queensland

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SOTL: SPARKING STEM Education: Collective Faculty Self Study

In Search for Convergence of Teaching Practices in STEM

Dr. Jennifer Suh & Dr. Andrew Gilbert, CEHD Sara Birkhead, Sara Kirschner CEHD Dr. Padhu Seshaiyer, COS



Pedagogical Courage: A Collective Faculty Self Study on STEM Teaching and Learning

Abstract: Using a design based research method, we conducted a collective faculty self study on designing, implementing and revising a STEM integrated course for inservice teachers. We used an integrative design for teaching STEM through three cycles of courses: 2 courses with inservice teachers and 1 course with preservice teachers. As faculty members who teach mathematics and science methods as separate courses, we explored the nature of teaching and learning when we were explicit in our intentional design decisions to integrate STEM into the curriculum. Other faculty can learn how to conduct collaborative faculty self study while working together on a common project. For us, it was designing an integrated course for our students. Our reflective practice through memoing and conferencing each week through planning, enhanced not only our teaching but also contributed to our learning of diverse perspectives and pedagogy.



OUR SCHOLARSHIP ON TEACHING AND LEARNING

This collective self study research documents the collaborative efforts of faculty and graduate students who co-designed and co-taught a STEM professional learning course.



Teachers discuss ideas in their wonder journals



A framework for mathematics modeling presented to teachers





OUR SCHOLARSHIP ON TEACHING AND LEARNING

This research study helped us identify who we are as teachers in the STEM discipline and guided us to study our own practice through self-study in an effort to make our teaching and programs more effective for teacher learning. Through collaboration, dialogue and openness to ideas from each other, the self-study researchers were able to frame and reframe the topics covered from different perspectives.

This allowed us as educators and researchers to openly question and reflect on our own teaching practices in an effort to envision and enact new pedagogical possibilities.



Dr. Suh works with students on the Fermi problem with popcorn



Discussion prompts for the Fermi problem with popcorn used during a debrief of the activity with teachers

http://sparkstem.onmason.com/

Scientific and mathematical modeling

Problem-based Learning

Access through Equitable Teaching Practices

Rigorous Content Knowledge

Knowledge and Confidence as STEM



Teacher PD STEM Studio along side of Student STEM Lab hosted at Centreville Elementary



Sparking a Sense of Wonder in Mathematics and Science







What we learned about our own Pedagogy while in Search for the



Frgence in Teaching Practices

in STEM

Faculty Perspectives





Program Description:

The project goal for SPARK STEM is to develop and deliver an integrated professional development for upper elementary/middle grade (4-6) teachers. The project focuses on **"Ambitious teaching"** - which prepares teachers to build STEM lessons that integrate content and authentic tasks and problems. The program includes a strong emphasis on engaging underserved students in STEM through modeling and PBL strategies and the profile of a graduate.





Research on Wonder

• Wonder has a long history in philosophy and science



• Wonder places human experience at the center of the inquiry process...







Research on Wonder-Math and Science Happenings

"I was being taught all throughout primary and secondary school – not to wonder." – Elementary teacher

Evidence suggests wonder-infused pedagogy can counteract years of negative associations with science toward developing teachers who are unafraid of science and open to more authentic science practices in classrooms.



Pedagogical Courage

We invite you to our table, and join us in our journey, as we detail our study and share our outcomes!

Taking on innovation, risk, courage, and breaking structural barriers.

...without the courage to carry out innovative methods or to challenge the ways you think about practice and learning then any growth will be limited. As teachers we must always grow and evolve. My own involvement in these STEM practices are new for me and have led to my own changing practice. Many veteran teachers may not have the courage to build and change practice if they are 'successful' as deemed by their principals or students results. The richness of my own practice has grown as I see so many more opportunities to integrate mathematical thinking into the science modeling and explanations we use in my courses. Courage is vital when working with teacher practices and striving for new directions in the work we do.

Developing New EYES

Integration of STEM is

ambitious teaching!

Move beyond our comfort zone of expertise.

Power of Convergence



You can find me at



Jennifer Suh, Ph.D. jsuh4@gmu.edu Andrew Gilbert, Ph.D.<u>Agilbe14@gmu.edu</u> Padhu Seshaiyer, Ph.D. <u>Pseshaiy@gmu.edu</u> Sara Birkhead, <u>Sbirkhea@gmu.edu</u> Sara Kirshner, <u>Skirshner@gmu.edu</u>



Test Early, Test Often, Test Small, Test Twice

Jeff Offutt, Software Engineering, VSE

Students learn better when

- tested frequently
- given frequent detailed feedback



Test often, test small



Quizzes

- weekly
- I0-I5 minutes
- answers shown immediately
- returned next class
- no midterm

Benefits

- increased student engagement (and attendance)
- more learning
- more retention



Test twice



Quiz retakes

- a retake for a low score or missed class
- max score 80%
- second score recorded (even if lower)
- within 2 weeks
- during office hours

Benefits

- they discover what they don't know
 - and are motivated to relearn it
- helps students with low self-efficacy
- helps students with high self-efficacy

https://cs.gmu.edu/~offutt/classes/637/index.html#QUIZZES



AAC&U Rubrics – They Can Work for You

MASON	Department of Health Administration and Policy
College of Heat	ith and Human Services

Foundations and Skills for Lifelong Learning

	Exemplary 4	Very Good 3	Good 2	Baseline 1
Curiosity	Explores a topic in depth, yielding a rich awareness and/or little-known information indicating intense interest in the subject.	Explores a topic in depth, yielding insight and/or information indicating interest in the subject.	Explores a topic with some evidence of depth, providing occasional insight and/or information indicating mild interest in the subject.	Explores a topic at a surface level, providing little insight and/or information beyond the very basic facts indicating low interest in the subject.
Initiative	Completes required work, generates and pursues opportunities to expand knowledge, skills, and abilities.	Completes required work, identifies and pursues opportunities to expand knowledge, skills, and abilities.	Completes required work and identifies opportunities to expand knowledge, skills, and abilities.	Completes required work.
Independence	Educational interests and pursuits exist and flourish outside classroom requirements. Knowledge and/or experiences are pursued independently.	Beyond classroom requirements, pursues substantial, additional knowledge and/or actively pursues independent educational experiences.	Beyond classroom requirements, pursues additional knowledge and/or shows interest in pursuing independent educational experiences.	Begins to look beyond classroom requirements, showing interest in pursuing knowledge independently.
Transfer	Makes explicit references to previous learning and applies in an innovative (new and creative) way that knowledge and those skills to demonstrate comprehension and performance in novel situations.	Makes references to previous learning and shows evidence of applying that knowledge and those skills to demonstrate comprehension and performance in novel situations.	Makes references to previous learning and attempts to apply that knowledge and those skills to demonstrate comprehension and performance in novel situations.	Makes vague references to previous learning but does not apply knowledge and skills to demonstrate comprehension and performance in novel situations.
Reflection	Reviews prior learning (past experiences inside and outside of the classroom) in depth to reveal significantly changed perspectives about educational and life experiences, which provide foundation for expanded knowledge, growth, and maturity over time.	Reviews prior learning (past experiences inside and outside of the classroom) in depth, revealing fully clarified meanings or indicating broader perspectives about educational or life events.	Reviews prior learning (past experiences inside and outside of the classroom) with some depth, revealing slightly clarified meanings or indicating a somewhat broader perspectives about educational or life events.	Reviews prior learning (past experiences inside and outside of the classroom) at a surface level, without revealing clarified meaning or indicating a broader perspective about educational or life events.

Steve Brown, Assistant Professor Health Administration and Policy sbrown4@gmu.edu



September 14, 2018



Love it?









"Tastes like grass"

Or, in-between?

Rubrics . . . so many and so diverse

Noun Nature Poems

CATEGORY	5	3	1
Choice of Nouns	You chose interesting, specific rouns,	You chose good rouns, but you could have been more specific.	You didn't really get much out of the garden visit, or your nound ware very ordinary.
Development of Poem	Your words create great mental pictures. They show thought and creativity.	Your poem is good but may tack the "punch" of a 5.	Your choice of words is tail.
Spelling, Grammar, Punctuation	You prooffkad for spelling, etc. and showed care with this part of the assignment.	You may have proofielad, but you missed some things you should have caught.	Your poem shows no signs of being prooffead or improved.
Overall Creativity	Your poem is lovely in every way- well-written colorful and neatly presented.	Your peem looks sery good but could have used more attention, in either art or writing.	Yeur poem looks like it was sitting at the bottom of a birdcage

		Level 4	Level 3	Level 2	Level 1
c U	Contract	Consistently builds upon and estends beyond a standard sename of study.	Occarionally attempts to build upon and intend a mandard course of souly.	Ravity builds open and extends a standard course of study.	Dogs not build spot a standard course of study. Attempts to provide rigor through quantity rather than quality.
RRIC	Constism	Consistently deals with seriversal concepts, complex levels of generalizations and essential questions.	Deschops universal concepts, generalizations and countral spentium,	Shews totle if any articulated connection as arout relationship between concepts.	That a narrow, single focus on discrete concepts. Student rencorses lack articulation.
U L U	Vengeotiee	Ration on multiple perspectives within the topic.	Includes a few perspectives within the topic.	Focuses on multiple discrete concepts and ideas.	Frequencies on topictor and activities.
M	True Manual	Constanties by utilizer multiple, complex, thought provoking and ambiguous texts muterials that aballenge thinking and feelings.	Occasionally saillares makiple ontopics, thought personking and ambiguous text-materials that challenge thicking and forlings.	Relies primarily on one of two textbooks	Overly selies in the lendbook as the predominant corriculum. Utilizes readings that superficially address the topic.
INSTRUCTI	Deferry by Tracker	Employs a large cases of research-lised and social instructional swategies and instructional swategies and instructions within convicular models.	Care multiple instructional strategies and muthods within brooms and sometimes. larger carricular models of study to anderstand complex and sophisticated levels materials.	Units one or two immutional management strategies (dowing, and/or followed centers, learning styles, etc.) within leasons to understand complex and undistituted toxis/materials.	Assumer modern will independently construct majoring Nom sophisticated texts/satorials through opporcessy graphic improcessy graphic organizers).
	arts.	Opportunities for understanding the "whys" through schedurly dialogue discussions are regularly provided.	Opportunities for understanding the "whys" through discussions are frequently provided.	Opportunities for understanding the "wiltys" are recessionally provided, but the incluogations of much strategies may or may not bu solutioned.	Opportunities for anderstanding the "whys" are tandy previded.
I D N	Reflection	Students reflect daily on monopps, complex levels of generalizations, and essential questions encountened with rigorous texts.	Students frequently reflect on concepts, goveralizations, and essential quartions encountered with rigorousy texits.	Students occasionally reflect on concepts, generalizations, and countial spectrom.	Students needy reflect on concepts, provalizations, and eventual questions.

Date ___ Name

Middle School Organization Rubric

	4	3	2	1
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Can rubrics be . . .

Useful Effective Practical ...?

Healthcare Accounting













THIRD EDITION

Accounting **Fundamentals** for Health Care Management





AAC&U "VALUE" Rubrics

https://www.aacu.org/value/rubrics



Association of American Colleges & Universities

 \widetilde{AV} oice and a Force for Liberal Education in the 21st Century

Home About Meetings Publications & Research Programs Press

Home > VALUE > VALUE Rubric Development Project

VALUE Rubric Development Project

The original VALUE initiative in 2007-09 involved teams of faculty and other educational professionals from over 100 higher education institutions engaged over many months to develop 16 VALUE rubrics for the LEAP Essential Learning Outcomes. Each rubric was developed from the most frequently identified characteristics or criteria of learning for each of the 16 learning outcomes. Drafts of each rubric were then tested by faculty with their own students' work on over 100 college campuses.

ABOUT VALUE VALUE Overview VALUE FAQ VALUE Webinars Parts of a VALUE Rubric Access Rubrics The VALUE Institute Current VALUE Project Staff
Why I like them . . . address many areas

Intellectual and Practical Skills

- Inquiry and analysis
- <u>Critical thinking</u>
- <u>Creative thinking</u>
- <u>Written communication</u>
- Oral communication
- <u>Reading</u>
 <u>Quantitative literacy</u>
- Information literacy
- <u>Teamwork</u>
- Problem solving

Personal and Social Responsibility

- Civic engagement—local and global
- Intercultural knowledge and competence
- <u>Ethical reasoning</u>
- Foundations and skills for lifelong learning
- Global learning

Integrative and Applied Learning

Integrative learning

The 16 "Value" Rubrics

Why I like them . . . an exceptional format



The VALUE rubrics were developed by teams of faculty experts representing colleges and universities across the United States through a process that examined many existing campus rubrics and related documents for each learning outcome and incorporated additional feedback from faculty. The rubrics articulate fundamental criteria for each learning outcome, with performance descriptors demonstrating progressively more sophisticated levels of attainment. The rubrics are intended for institutional-level use in evaluating and discussing student learning, not for grading. The core expectations articulated in all 15 of the VALUE rubrics can and should be translated into the language of individual campuses, disc s. The utility Definition of the VALUE rubrics is to position learning at all undergraduate levels within a basic framework of expectations suc ing can by shared nationally through a common dialog and understanding of student success.

Definition

Critical thinking is a habit of mind characterized by the comprehensive exploration of issues, ideas, artifacts, and events before accepting or formulating an opinion or conclusion.

Framing Language

This rubric is designed to be transdisciplinary, reflecting the recognition that success in all disciplines requires habits of inquiry and analysis that share common attributes. Further, research suggests that successful critical thinkers from all disciplines increasingly need to be able to apply those habits in various and changing situations encountered in all walks of life.

This rubric is designed for use with many different types of assignments and the suggestions here are not an exhaustive list thinking can be demonstrated in assignments that require students to complete analyses of text, data, or issues. Assignments that c mode might be especially useful in some fields. If insight into the process components of critical thinking (e.g., how information s regardless of whether they were included in the product) is important, assignments focused on student reflection might be especially illuminating.

Glossary

Framing

Language

The definitions that follow were developed to clarify terms and concepts used in this rubric only.

- · Ambiguity: Information that may be interpreted in more than one way.
- · Assumptions: Ideas, conditions, or beliefs (often implicit or unstated) that are "taken for granted or accepted as true without proof." (quoted from www.dictionary.reference.com/browse/assumptions)
- · Context: The historical, ethical. political, cultural, environmental, or circumstantial settings or conditions that influence and complicate the consideration of any issues, ideas, artifacts, and events.
- · Literal meaning: Interpretation of information exactly as stated. For example, "she was green with envy" would be interpreted to mean that her skin was green.

 Metaphor: Information that is (intended to be) interpreted in a non-literal way. For example, "she was green with envy" is intended to convey an intensity of emotion, not a skin color.

Glossary

Page 1 of 2

Why I like them . . . <u>excellent content</u>

Page 2 of 2

	Learning Outcome	for more information,	KING VALUE RUBRIC	Definition	
Critical thinking is a habi			ects, and events before accepting or form	ulating an opinion or conclusion.	
	Capstone	Mile	stones	Benchmark	
evels (4,3,2,1,0		3	2	1	
Explanation of issues	Issue/problem to be considered critically is stated clearly and described comprehensively, delivering all relevant information necessary for full understanding.	Issue/problem to be considered entically is stated, described, and clarified so that understanding is not seriously impeded by omissions.	Issue/problem to be considered entically is stated but description leaves some terms undefined, ambiguities unexplored, boundaries undetermined, and/or backgrounds unknown.	Issue/problem to be considered critically is stated without clarification or description.	
Evidence Selecting and using information to investigate a point of view or conclusion	Information is taken from source(s) with chough interpretation/evaluation to develop a comprehensive analysis or synthesis. Viewpoints of experts are questioned thoroughly.	Information is taken from source(s) with enough interpretation/evaluation to develop a coherent analysis or synthesis. Viewpoints of experts are subject to questioning.	Information is taken from source(s) with some interpretation/evaluation, but not enough to develop a coherent analysis or synthesis. Viewpoints of experts are taken as mostly fact, with little questioning	Information is taken from source(s) without any interpretation/evaluation. Viewpoints of experts are taken as fadt, without question.	
Influence of context and assumptions	Thoroughly (systematically and methodically) analyzes own and others assumptions and carefully evaluates the relevance of contexts when presenting a position.	Identifies own and others' assumptions and several relevant contexts when presenting a position.	Questions some assumptions. Identifies several relevant contexts when presenting a position. May be more aware of others' assumptions than one's own (or vice versa).	Shows an emerging awareness of present assumptions (sometimes labels assertions as assumptions). Begins to identify some contexts when presenting a position.	
Student's position (perspective, thesis/hypothesis)	Specific position (perspective, thesis, hypothesis) is imaginative, taking into account the complexities of an ssue. Limits of position (perspective, thesis, hypothesis) are acknowledged. Other ' points of view are synthesized within position (perspective, thesis/hypothesis).	Specific position (perspective, thesis/hypothesis) takes into account the complexities of an issue. Others' points of view are acknowledged within position (perspective, thesis/hypothesis).	Specific position (perspective, thesis/hypothesis) acknowledges different sides of an issue.	Specific position (perspective, thesis/hypothesis) is stated, but is simplistic and obvious.	
Conclusions and related outcomes (implications and consequences)	Conclusions and related outcomes (consequences and implications) are logical and reflect student's informed evaluation and ability to place evidence and perspectives discussed in priority order.	Conclusion is logically tied to a range of information, including opposing viewpoints; related outcomes (consequences and implications) are identified clearly.	Conclusion is logically tied to information (because information is chosen to fit the desired conclusion); some related outcomes (consequences and implications) are identified clearly.	Conclusion is inconsistently tied to so ne of the information discussed; related outcomes (consequences and implications) are oversimplified.	

Dimensions

Performance Descriptors

Why I like them . . . modification is encouraged

College of Health administration and Policy

Foundations and Skills for Lifelong Learning



Foundations and Skills for Lifelong Learning

	Exemplary 4	Very Good 3	Good 2	Baseline 1
Curiosity	Explores a topic in depth, yielding a rich awareness and/or little-known information indicating intense interest in the subject.	Explores a topic in depth, yielding insight and/or information indicating interest in the subject.	Explores a topic with some evidence of depth, providing occasional insight and/or information indicating mild interest in the subject.	Explores a topic at a surface level, providing little insight and/or information beyond the very basic facts indicating low interest in the subject.
Initiative	Completes required work, generates and pursues opportunities to expand knowledge, skills, and abilities.	Completes required work, identifies and pursues opportunities to expand knowledge, skills, and abilities.	Completes required work and identifies opportunities to expand knowledge, skills, and abilities.	Completes required work.
Independence	Educational interests and pursuits exist and flourish outside classroom requirements. Knowledge and/or experiences are pursued independently.	Beyond classroom requirements, pursues substantial, additional knowledge and/or actively pursues independent educational experiences.	Beyond classroom requirements, pursues additional knowledge and/or shows interest in pursuing independent educational experiences.	Begins to look beyond classroom requirements, showing interest in pursuing knowledge independently.
Transfer	Makes explicit references to previous learning and applies in an innovative (new and creative) way that knowledge and those skills to demonstrate comprehension and performance in novel situations.	Makes references to previous learning and shows evidence of applying that knowledge and those skills to demonstrate comprehension and performance in novel situations.	Makes references to previous learning and attempts to apply that knowledge and those skills to demonstrate comprehension and performance in novel situations.	Makes vague references to previous learning but does not apply knowledge and skills to demonstrate comprehension and performance in novel situations.
Reflection	Reviews prior learning (past experiences inside and outside of the classroom) in depth to reveal significantly changed perspectives about educational and life experiences, which provide foundation for expanded knowledge, growth, and maturity over time.	Reviews prior learning (past experiences inside and outside of the classroom) in depth, revealing fully clarified meanings or indicating broader perspectives about educational or life events.	Reviews prior learning (past experiences inside and outside of the classroom) with some depth, revealing slightly clarified meanings or indicating a somewhat broader perspectives about educational or life events.	Reviews prior learning (past experiences inside and outside of the classroom) at a surface level, without revealing clarified meaning or indicating a broader perspective about educational or life events.

Orientation

This rubric is based on one of 16 "VALUE rubric" developed by the Association of American Colleges and Universities. The AACU drew from the work of faculty experts representing colleges and universities across the United States, and used a process that examined many existing campus rubrics and related documents. These rubrics were designed to create a basic framework of expectations that can be of help in evaluating and discussing student learning. The performance descriptors used demonstrate progressively more sophisticated levels of attainment. The core expectations articulated in all 16 of the VALUE rubrics serve as a tool that is meant to be translated into the language of individual campuses, disciplines, programs and courses. The Department of Health Administration and Policy of the College of Health and Human Services use this rubric and others to reinforce the expected learning outcomes of students in all of its degree programs.

Definition

Lifelong learning is "all purposeful learning activity, undertaken on an ongoing basis with the aim of improving knowledge, skills and competence". An endeavor of higher education is to prepare students to be this type of learner by developing specific dispositions and skills described in this rubric while in school. (From The European Commission. 2000. Commission staff working paper: A memorandum on lifelong learning. Retrieved January 18, 2016, http://arhiv.acs.si/dokumenti/Memorandum on Lifelong Learning.pdf

Framing Language

This rubric is designed to assess the skills and dispositions involved in lifelong learning, which are <u>curiosity</u>, <u>transfer</u>, <u>independence</u>, <u>initiative</u>, and <u>reflection</u>. Assignments that encourage students to reflect on how they incorporated their lifelong learning skills into their work samples or collections of work by applying above skills and dispositions will provide the means for assessing those criteria. Work samples or collections of work tell what is known or can be done by students, while reflections tell what students think or feel or perceive. Reflection provides the evaluator with a much better understanding of who students are because through reflection students share how they feel about or make sense of their learning experiences. Reflection allows analysis and interpretation of the work samples or collections of work for the reader. Reflection also allows exploration of alternatives, the consideration of future plans, and provides evidence related to students' growth and development. Perhaps the best fit for this rubric are those assignments that prompt the integration of experience beyond the classroom.

Reframing our thinking . . .

Rubrics as "Checklists"



Atul Gawande

ANNALS OF MEDICINE | DECEMBER 10, 2007 ISSUE

THE CHECKLIST If something so simple can transform intensive care, what else can it do? BY ATUL GAWANDE

🖪 SHARE 🌱 TWEET 😽 🖾 🗧

he damage that the human body can survive these days is as awesome as it is horrible: crushing, burning, bombing, a burst blood vessel in the brain, a ruptured colon, a massive heart attack, rampaging infection. These conditions had once been uniformly fatal. Now survival is commonplace, and a large part of the credit goes to the irreplaceable component of medicine known as intensive care.

It's an opaque term. Specialists in the field prefer to call what they do "critical care," but that doesn't exactly clarify matters. The non-medical term "life support" gets us closer. Intensive-care units take artificial control of failing bodies.



If a new drug were as effective at saving lives as Peter Pronovost's checklist, there would be a nationwide marketing campaign urging doctors to use it.

ILLUSTRATION BY YAN NASCIMBENE

Rubrics in the Political Science Classroom: Packing a Serious Analytical Punch

Maria Rost Rublee, Australian National University

ABSTRACT Although professors may be aware that rubrics shorten grading time and improve grading consistency, many are not aware that rubrics offer a powerful analytical punch.

The Teacher

Maria Rost Rublee

	Exemplary 4	Very Good 3	Good 2	Baseline 1
Topic selection	Identifies a creative, focused, and manageable topic that addresses potentially significant yet previously less-explored aspects of the topic.	Identifies a focused and manageable/doable topic that appropriately addresses relevant aspects of the topic.	Identifies a topic that while manageable/doable, is too narrowly focused and leaves out relevant aspects of the topic.	Identifies a topic that is far too general and wide-ranging as to be manageable and doable.
Existing Knowledge, Research, and/or Views	Synthesizes in-depth information from relevant sources representing various points of view/approaches.	Presents in-depth information from relevant sources representing various points of view/approaches.	Presents information from relevant sources representing limited points of view/approaches.	Presents information from irrelevant sources representing limited points of view/approaches.
Design Process	All elements of the methodology or theoretical framework are skillfully developed. Appropriate methodology or theoretical frameworks may be synthesized from across disciplines or from relevant sub-disciplines.	Critical elements of the methodology or theoretical framework are appropriately developed, however, more subtle elements are ignored or unaccounted for.	Critical elements of the methodology or theoretical framework are missing, incorrectly developed, or unfocused.	Inquiry design demonstrates a misunderstanding of the methodology or theoretical framework.
Analysis	Organizes and synthesizes evidence to reveal insightful patterns, differences, or similarities related to focus.	Organizes evidence to reveal important patterns, differences, or similarities related to focus.	Organizes evidence, but the organization is not effective in revealing important patterns, differences, or similarities.	Lists evidence, but it is not organized and/or is unrelated to focus.
Conclusions	States a conclusion that is a logical extrapolation from the inquiry findings.	States a conclusion focused solely on the inquiry findings. The conclusion arises specifically from and responds specifically to the inquiry findings.	States a general conclusion that, because it is so general, also applies beyond the scope of the inquiry findings.	States an ambiguous, illogical, or unsupportable conclusion from inquiry findings.
Limitations and Implications	Insightfully discusses in detail relevant and supported limitations and implications.	Discusses relevant and supported limitations and implications.	Presents relevant and supported limitations and implications.	Presents limitations and implications, but they are possibly irrelevant and unsupported.

More modifications... Keep rows ... Change the columns

MASON Department of Health Administration and Policy College of Health and Human Services

Quantitative Literacy – Ratio Analysis – Student's Guide

	Focus (PLAN)	Execute (DO)	Evaluate (CHECK or STUDY)	Adjust (ACT)
Interpretation Ability to explain information presented in mathematical forms (e.g., equations, graphs, diagrams, tables, words)	Focus on understanding the concepts involving the accurate explanations of information presented in mathematical forms for this application. Learn how to make appropriate inferences based on this information.	Deliver accurate explanations of the information and presented it in mathematical forms for this application. Make appropriate inferences based on that information.	Evaluate my level of understanding of this use of mathematical forms and for this application as well as their use of this model to make appropriate inferences.	Based upon my review of my level of focus, execution, and evaluation for this learning activity, what modifications are appropriate with regard to the "interpretation" component of this activity or model?
Representation Ability to convert relevant information into various mathematical forms (e.g., equations, graphs, diagrams, tables, words)	Focus on converting the relevant information in the provided examples into an insightful mathematical portrayal in a way that I can get a further and deeper understanding of these concepts	Skillfully convert the relevant information in the examples into an insightful mathematical portrayal in a way allows me to gain further or deeper understanding.	Evaluate my level of understanding of the use of the relevant information in these examples and whether I achieved a deeper understanding of these concepts.	Based upon my review of my level of focus, execution, and evaluation for this learning activity, what modifications are appropriate with regard to the "representation" component of this activity or model?
Calculation	Focus on understanding the examples of calculations used in this model so that I can be successful in solving similar problems that I will encounter.	Perform all calculations used in this model accurately and completely.	Evaluate the accuracy of my calculations used in this model.	Based upon my review of my level of focus, execution, and evaluation for this learning activity, what modifications are appropriate with regard to the "calculation" component of this activity or model?
Application / Analysis Ability to make judgments and draw appropriate conclusions based on the quantitative analysis of data, while recognizing the limits of this analysis	Focus on understanding the explanations from the examples and how they lend themselves to quantitative analysis, and understand how such analysis can be useful in forming thoughtful judgments and insightful conclusions	Provide explanations on how this example lends itself to quantitative analysis, and how that analysis can be useful in forming thoughtful judgments and insightful conclusions.	Evaluate my application of the concepts in this activity and my ability to use these concepts to form thoughtful judgments and insightful conclusions.	Based upon my review of my level of focus, execution, and evaluation for this learning activity, what modifications are appropriate with regard to the "application and analysis" component of this activity or model?

Make them readily available

Rubrics and Checklists

Enabled: Statistics Tracking This folder contains a variety of rubr



HAP Finance Courses Fall 2015 S.B. 8/27/15 Page 2

about educational or life events.

experiences, which provide

foundation for expanded knowledge, growth, and maturity over time

or life events.





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Rubrics and Checklists

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Definition

Lifelong learning is "all purposeful learning activity, undertaken on an ongoing basis with the aim of improving knowledge, skills and competence". An endeavor of higher education is to prepare students to be this type of learner by developing specific dispositions and skills described in this rubric while in school. (From The European Commission, 2000, Commission staff working paper: A memorandum on lifelong learning. Retrieved March 3, 2014, http://www.see-educoop.net/education_in/pdf/lifelong-oth-enl-t02.pdf)

Framing

This rubric is designed to assess the skills and dispositions involved in life and reflection. Assignments that encourage students to reflect on how t collections of work by applying above skills and dispositions will provide work tell what is known or can be done by students, while reflections te evaluator with a much better understanding of who students are becaus of their learning experiences. Reflection allows analysis and interpretation also allows exploration of alternatives, the consideration of future plans Perhaps the best fit for this rubric are those assignments that prompt th

HAP Finance Courses Fall 2015

What do students say?



















Invest your time. Take a look.

https://www.aacu.org/value/rubrics



Home > VALUE > VALUE Rubric Development Project

VALUE Rubric Development Project

The original VALUE initiative in 2007-09 involved teams of faculty and other educational professionals from over 100 higher education institutions engaged over many months to develop 16 VALUE rubrics for the LEAP Essential Learning Outcomes. Each rubric was developed from the most frequently identified characteristics or criteria of learning for each of the 16 learning outcomes. Drafts of each rubric were then tested by faculty with their own students' work on over 100 college campuses.

Teaching Hidden History

Teaching Inquiry and Respecting the Process

Presenter: Nate Sleeter Research Team: Kelly Schrum, Amy Swan, Justin Broubalow

What's the connection?









Introduction to the course

Scottish Tartan: connects to folklore, nationalism, and creation of a common cultural identity

Teaching Hidden History: Graduate course for history and education students

Created online learning modules. Researched and wrote on topics of their choosing.

Prior research

Inquiry-based learning (IBL) defined as learning that is directed by a student's own questions and research (Hutchings, 2006)

Benefits: Student-directed inquiry fosters intrinsic motivation

Criticisms: Unstructured may not be effective, data mostly self-reported.

THH: Student-centered inquiry

Students chose their topics, researched, determined audience.





Witch Trial in Colonial Virginia



Amos n' Andy





U.S. missionaries in Korea



Charlie Chaplin

. . . within a predetermined format

Module format based on courses previously developed by **RR-CHNM**. The First Great Crisis











colonists and Great Britain over the nature of their relationship. The Stamp Act required that documents printed in the colonies (including newspapers, legal documents, books, and

he 1765 Stamp Act ributed to the first uine crisis between the

land deeds) be affixed with a stamp purchased from colonial authorities. The Stamp Act was a departure from established British policy: by taxing the colonists directly, it shifted the means of revenue from the regulation of trade in and out of the colonies to the internal activities of the colonies themselves. The Stamp Act also precipitated the first great crisis between Britain and the colonies: almost unanimously, colonial leaders protested the Act, and began to connect these taxes with an infringement of their liberty. The fact that the Stamp Act fell heavily on newspaper editors and pamphleteers, those in the best position to vocally oppose it, only amplified the volume of the protest, exemplified in this protest against the Stamp Act in The Pennsylvania Journal and Weekly Advertiser.

Source:

Bradford, William [publisher]. "The Pennsylvania journal and weekly advertiser--expiring: in hopes of a resurrection to life again." October 11, 1765 American 18th Century Newspapers from the American Periodical Series, Library of Congress.

Instructions













Conclusions - A possible model for IBL

Students in post course interviews reported they had learned valuable skills.

Graduate course meant many students were working (teachers, public history) or PhD students when interviewed.

Assessment of learning/skills a year later carries authority.

CONNECTING STRENGTHS AND COMMUNICATION SKILLS TO ENHANCE WELL-BEING

Melissa Broeckelman-Post Nance Lucas Melissa Stiksma Julia Hathaway Syahgena St. Onge Kimberly Daniels

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"What will happen when we think about what is right with people rather than fixating on what is Wrong with them?"



Donald O. Clifton, psychologist and business executive (1924-2003)

PROJECT OVERVIEW

Why Strengths?

Why COMM 101?

GEORGE MASON UNIVERSITY

CLASSROOM INTERVENTIONS

Instructor

- Strength Assessment
- Strength Activities

Students: Integrated Strength Activities in Class

- First day individual strengths assessment & discussion
- Balconies and basements
- Strengths in conflict management and resolution
- Complementary partnerships
- Strengths-based teams and groups

DESIGN

Independent Variable:

- Classroom Strengths
 - 6 sections in intervention (*N* = 133): 3 female instructors, MWF meeting pattern
 - 6 section in control group (N = 128): 3 female instructors, MWF meeting pattern

Dependent Variables:

- Strengths understanding
- Engagement
- Flourishing
- Loneliness
- Belongingness

RESULTS

- Strengths understanding: no difference between conditions, time had an impact [F (1, 127) = 21.05, p < .001, η_p²= .14]
- **Engagement**: time by intervention interaction was significant [$F(1, 127) = 9.26, p = .003, \eta_p^2 = .01$]
- **Flourishing**: no difference between conditions, no change over time
- **Loneliness**: no difference between conditions, no change over time
- **Belongingness**: no difference between conditions, no change over time



ERSITY

DISCUSSION

- Possible complication: UNIV 100 intervention
- Implications for COMM 101
- Next analysis steps
- Connection to course proposed in President's goals

SOTL: Low budget personalized teaching and learning

Mihai Boicu

Technology intervention: How to help your students succeed in an online environment

Dr. Katie Rosenbusch



"Over 86% of traditional residential colleges and universities now offer online course options. One third of all degrees are now offered online"

--Online Schools Center, 2018

THE STAGE HAS BEEN SET go ahead and follow the basic 5 steps

1	2	3	4	5
PREPARE	SHIFT	SUPPORT	ENGAGE	LEAD
Understand your students	Course Re-design Paradigm Shift	Overview the course with students	Allow students to practice	Be supportive and engaging

ONLINE PROTOCOL

Postings should be evenly distributed during the discussion period (not concentrated all on one day or at the beginning and/or end of the period).

Postings should be a minimum of one short paragraph and a maximum of two paragraphs.

Avoid postings that are limited to 'I agree' or 'great idea', etc. If you agree (or disagree) with a posting then say why you agree by supporting your statement with concepts from the readings or by bringing in a related example or experience.

Address the questions as much as possible (don't let the discussion stray).

Try to use quotes from the text that support your postings. Include page numbers when you do that.

Build on others responses to create threads.

Bring in related prior knowledge (work experience, prior coursework, readings, etc.)

Use proper etiquette (proper language, typing, etc.).

Understand your students

PREPARE

- Check on proficiency with technology
 - Have students take an online
 assessment





2 Course Re-design Paradigm Shift

SHIFT

- Formulate plans for engagement
 - Rethink how you teach

3

Overview the course with students

SUPPORT

Create Video to orientate the students

MacBook Ali

 Create tips for success and ease of access into the course platform

4

Allow students to practice

ENGAGE

- First week trial to figure out technology
- Low stakes assessments—Syllabus Quiz





5

Lead your students in an supportive and engaging environment

LEAD

- Create an atmosphere to foster learning
- Variety of techniques and tools



Monday/Tuesday Read the Chapter/Watch the Lecture Wednesday Do Connect Activities & Respond to Discussion board Q's Thursday/Friday Work on Self-Assessment/Blog OR Take Quiz Saturday/Sunday **Respond to Classmates in Discussion board**

Thank You...Questions

Supporting the Civic Engagement of First Generation College Students

George Mason University

Sharrell Hassell-Goodman (shassel3@gmu.edu) Beth Dalbec (ddalbec@gmu.edu)
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Center for the Advancement of Well-Being

First-Generation College Students in Higher Education

DEFINING

First-Generation College Students are students where neither parent(s) or guardian(s):

• Completed a four year degree in the United States

HIGHER EDUCATION SETTINGS

Many first-generation college students are:

- Economically disadvantaged
- More likely to be considered working-class
- Require additional academic (e.g., tutoring) and/or social support, and
- Experience a cultural gap and may not financial and family support

Civic Engagement

CIVIC ENGAGEMENT

- The combination of civic knowledge, skills, values and motivation to make a difference.
- This definition was adapted from AAC&U [Ehrlich, T. (Ed.) (2000). Civic responsibility and higher education. New York: Oryx Press.]

Methodology & Methods

QUANTITATIVE

- Surveys:
 - Existing Data Gallup Well-Being Student Survey 2015
 - •22% of the 35,000 students completed the survey
 - n= 4,646 first-generation college students; 60.9% female; 49.8% students of color

QUALITATIVE

- Methodology: Narrative Inquiry
- Method:
 - •In-depth Interviews
 - •Focus groups (FG and Non-FG)
- Expert Nomination & Snowball Sampling (n=20)

Effects of Civic Engagement

Quantitative Findings:

- Student engagement variables showed positive, significant effects on all well-being outcomes
- volunteering and extracurricular/organizational involvement demonstrated positive, significant effects on all well-being outcomes except for financial well-being.
- individuals high on involvement and high on student engagement report greater purpose.
- individuals high on volunteering and high on school engagement report greater physical well-being

Student engagement helps to augment the effects of civic activities on students' wellbeing outcomes. Alternatively, having greater extracurricular/organization involvement helps to buffer against low hope or strengths.

Emerging Themes: Civic Engagement

Functional obligations as barriers to engagement

"I'm not involved in any groups [on campus] or anything because I just don't have the time. But I do see that a lot of people try to reach out and stuff. 'Come join. Come see this.' So, I think that's great because I know people love that. But me, due to time, I just can't."

"I would definitely [join on-campus organizations if I had extra time]. I know they have an undocumented group. I would totally do that."

-Maria

Emerging Themes: Civic Engagement

Classroom as catalyst for engagement

"I love that class....I love that he makes us go outside of class and talk to other people.... So even though I am not , like I said, coming to clubs and being able to meet just because of the time constraints, I am able to talk to other people and just like open up. So...I just feel like it's so powerful...integrative studies is like so powerful, like it's opening me up...."

"I'm talking to people [in class], and these people are telling me to go to these things and these things. So that's so, if I can come to an event, then I will try to make it....if I can make the time for it. Pretty much class is what is getting me involved [in the community]."

-GM

Emerging Themes: Civic Engagement

Civic engagement as obligation

"Just being part of the Mason community and its organizations. Doing something helping others, community service, philanthropy. Anything – I always liked helping others. That's how I was raised."

- LaBron

Future Directions & Implications

Future Directions

- •Collaborative auto-ethnographic project of research team
- •Additional studies on:
 - social and economic capital of FG;graduate FG students;
 - •breakaway guilt;
 - transgenerational trauma and mental health;

Implications for PracticeDocumentary about FG student stories

- FGS Scholarship for Doctoral Students
- FGRP (First-Generation Resource Portal)
- UNIV 100 sections for FG students
- Center for Well-Being and SAIL: Mason's Office of Community Engagement



FIRST-YEAR STUDENTS: SELF-PERCEPTIONS OF THEIR RESEARCH SKILLS

Maoria J. Kirker Instruction & Assessment Coordinator George Mason University Libraries mkirker@gmu.edu



University Libraries

CORE RESEARCH QUESTION

How does a student's perception of their own information literacy abilities change from the college transition through the first year experience?

METHODS

Initial Self-Reflection: First week of the fall semester

Final Self-Reflection: Last week of the fall semester

Follow-up Interviews: Last two weeks of the spring semester

FINDINGS

- 1. Students definition of "research": Two steps forward, one step backward
- 2. Four information literacy journeys in the FYE
- 3. Lack of transfer opportunities in the FYE of information literacy skills
- 4. Research is an emotional labor for students

FINDINGS

- 1. Students definition of "research": Two steps forward, one step backward
- 2. Four information literacy journeys in the FYE
- 3. Lack of transfer opportunities in the FYE of information literacy skills
- 4. Research is an emotional labor for students

FOUR JOURNEYS OF INFORMATION LITERACY IN THE FYE

Journey	Description
Architects	Create new cognitions about research because they either lacked or had a poor IL experience in high school, or completely abandoned what they learned about IL in high school.
Renovators	Clean house of what they know about IL, research, & themselves. They are experiencing a transformation that transcends academics, but has direct implications for how they conceive of themselves as researchers.
Builders	Have preconceptions of what IL entails. They build upon, modify, or refine their existing conceptual understanding of IL. They change their behavior, not their cognitions.
Fragmenters	Hold conflicting concepts of research - often their conception of IL in high school and a new one they learn in the FYE. They start as one of the three types and split off at critical incident in their learning.



Maoria J. Kirker – mkirker@gmu.edu



Mason's College of Science STEM Accelerator Program: STEM Boot Camp Study

> LETTY GUZMAN 14 SEPT 2018

Degrees Conferred Public & Private Post Secondary Institutions (Source: NCES, 2017)



Projected STEM Occupations-Through 2022 **1,949,790**

Source: BLS.gov

The U.S. Drops Out of the Top 10 in Innovation Rankin

By Michelle Jamrisko & Wei Lu, January 22, **2018**

Source: Bloomberg

Fifty Most Innovative Economies

South Korea, Sweden and Singapore top the list; U.S. drops out of top 10.



Sources: Bloomberg, International Labour Organization, International Monetary Fund, World Bank, Organization for Economic Co-operation and Development, World Intellectual Property Organization

loomberg

Conducted a mixed method study on Mason's STEM Boot Camp, which is held for incoming freshman Establishes programs that benefit and support students entering the rigorous STEM curriculum.



George Mason University

Provided academic refresher on foundational skills and acclimated students to new environment. The summer bridge/intervention program successfully prepared freshman for their first year at Mason

In their own words...

I really appreciate the emphasis on studying and time management. I know it would be easy to cram our time with classes, but I struggled with that especially because I had sports and life and then high school. I know this is going to be a lot different so I really appreciate it.

Okay, well overall the whole program is an amazing experience. I really am glad that I had the opportunity to do this. The one thing I really liked about this class is it really gives you the real college feel of what college is like, which is great because I'm gonna be a freshmen in a good two, three weeks, which is really close... The instructor come to me like, "I like how you structured it. You wrote out your steps. "It was good because I usually, I didn't get it that much in high school. I was just kind of like, I'm doing it, I was trying. Kind of everybody was doing it the same way. So it's nice to get that refresher and be like, okay, this is the right way to do it.

I've had actually quite a lot of fun... I have enjoyed learning the lectures, and I think my favorite so far was getting to know the types of professors. Getting a feel for what's it going to be like.... I didn't think I would make too many friends, but I managed to get at least five good friends here who became my little study buddies. It's been great. Just being here it's like getting a little taste of the college experience. Waking up and going to lectures. It's kind of like prepared me. Going in, I was like, this is gonna be kind of an adjustment. But I got adjusted to it this week and I was like, "Okay, I can do this." So- I think coming up later in August, I'll be more prepared.

We've been learning how to do physics labs and getting a general idea on what kind of physics courses there are at the school. So it's really good compared to someone who might not be at this camp. They might not know exactly know what a college level lab report is...

STUDENT ENGAGEMENT PROFILES IN A DISCRETE-TIME SIGNALS AND SYSTEMS COURSE

Dasha Gerasimova and Jill Nelson George Mason University

SEPTEMBER 14, 2018





RATIONALE & RESEARCH QUESTIONS

Knowledge of students' engagement profiles may help instructors to understand the various ways students engage in a course, as well as to inform instruction and course management accordingly.

- RQ #1: WHAT ARE STUDENT ENGAGEMENT PROFILES IN A DISCRETE-TIME SIGNALS AND SYSTEMS COURSE?
- RQ #2: Is there a relationship between the identified ENGAGEMENT PROFILES AND STUDENT ACHIEVEMENT IN THE COURSE?

OUR APPROACH

BEHAVIORAL ENGAGEMENT:

- LISTENING
- ASKING QUESTIONS
- ANSWERING QUESTIONS
- NOTE TAKING
- GROUP WORK PARTICIPATION

EMOTIONAL ENGAGEMENT:

- INTEREST
- EMOTIONS
- ATTITUDES TOWARD GROUP WORK

 CONTEXT: JUNIOR-LEVEL DISCRETE-TIME SIGNALS AND SYSTEMS COURSE (2 COURSE OFFERINGS)

- 82 STUDENTS PARTICIPATED
- MEASUREMENT: SURVEY SCALE FROM 1-6
- ANALYSIS:
 - CLUSTER ANALYSIS
 - ANOVA

ENGAGEMENT PROFILES

	Passive Learner (N=21)	Absorbers (N=26)	Collabo- rators (N=10)	Engaged Learner (N=25)
Behavioral Engagement				
Listening	4.22	5.21	4.30	4.85
Asking Questions	2.90	3.60	4.15	4.67
Answering Questions	2.29	2.20	3.13	4.39
Note Taking	5.19	5.74	2.45	5.61
Group Work Participation	4.32	4.97	5.10	5.59
Emotional Engagement				
Interest	3.12	4.29	4.90	4.36
Emotions	3.15	4.30	4.28	4.83
Attitudes toward Group Work	3.86	4.32	4.28	5.29

Passive Learners Took notes intensively but were relatively unengaged otherwise

Absorbers

Unwilling to ask or answer questions while being actively engaged otherwise

Collaborators

Did not take notes or answer questions but were engaged otherwise

Engaged Learners Highly engaged based on all factors

DATA SHOWS NO SIGNIFICANT DIFFERENCES IN FINAL COURSE GRADE



Note. Error bars indicate 95% confidence intervals

DISCUSSION

- Students engage in class differently, not necessarily better or worse
- INSTRUCTORS MAY USE THE INFORMATION ABOUT WHAT TYPES OF LEARNERS ARE IN THEIR CLASSES TO ADJUST INSTRUCTION
- RELATIONSHIP BETWEEN ENGAGEMENT PROFILES AND ACHIEVEMENT NEEDS FURTHER INVESTIGATION

NEXT STEPS

- DEVELOPING A NEW SURVEY TO MEASURE STUDENT ENGAGEMENT
- MEASURES THREE TYPES OF ENGAGEMENT WITHIN FOUR TYPES OF INSTRUCTION
- LAUNCHING THE SURVEY AT THE END OF THIS SEMESTER
- INVITING INTERESTED INSTRUCTORS TO PARTICIPATE!

	Lecturing	Whole-class interaction	Group work	Individual work
Behavioral Engagement				
Cognitive Engagement				
Emotional Engagement				

QUESTIONS?

WOULD LIKE MORE INFORMATION? INTERESTED IN PARTICIPATING?

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 FULL PAPER: GERASIMOVA, D., NELSON, J. K., & HJALMARSON, M. (2018). STUDENT ENGAGEMENT PROFILES IN DISCRETE-TIME SIGNALS AND SYSTEMS COURSES. PRESENTED AT THE 2018 ASEE ANNUAL CONFERENCE & EXPOSITION.

HTTPS://PEER.ASEE.ORG/STUDENT-ENGAGEMENT-PROFILES-IN-DISCRETE-TIME-SIGNALS-AND-SYSTEMS-COURSES