

General Faculty Assessment Reports

Name: Angie Leavitt

Institutional Outcome: None

Program Outcome: 1 Program Outcome Verbiage: PO4 Students will be able to recognize or articulate personal/interpersonal aspects of, or connections between, diverse cultural, social, or political contexts

Courses Tied to this Assessment: SPAN&121;#247120

Course Outcomes and Number and Verbiage: CO 8 Articulate an understanding of the value to themselves of learning about other cultures

What did you do for your assessment and why:

I have noted that students are not aware of, nor do they see the importance of, their participation in a global society. Most students do not have a concept of where Spanish speaking countries are located in relation to the United States. Many do not have an understanding of the importance of cultural beliefs and traditions for others nor how it relates to them as they participate in an increasingly global community. In order to improve students' competence in IO4 (Students will be able to recognize or articulate personal/interpersonal aspects of, or connections between, diverse cultural, social, or political contexts") as well as in CO 8 (Articulate an understanding of the value to themselves of learning about other cultures) the following assessment was given:

Students were required to watch a culture video each week and discuss the knowledge they gained about the cultural elements contained in the video. Students were introduced to fictional characters in novels that they read throughout the year. These protagonists have the opportunity to travel to a Spanish speaking country as an exchange student. Students were required to study maps indicating where Spanish speaking countries are located and to take map quizzes twice during the quarter.

I provided an assessment in which students imagined that they received the opportunity to travel to a Spanish speaking country as an exchange student. Students wrote a letter to their parents expressing how they would benefit from such a cultural exchange. Their letter needed to include persuasive reasons why their parents should provide permission for them to participate in this exchange. The letter was written in English so that language did not prove a hindrance in their articulation of their arguments.

After having the opportunity to review the above stated activities, students revisited their original letter to see if they would revise any of their original arguments. At this time they will also provide a free write" assignment in the target language expressing what they have learned about the importance of connections between cultural contexts.

What tools and measures did you use for your assessment:

What were the results of your assessment:

What now:

Changes or recommendations:

Name: Matt Sullivan

Institutional Outcome: 1. Communication

Program Outcome: 1 **Program Outcome Verbiage:** Gen Ed I: 1. Students will be able to communicate clearly and effectively.

Courses Tied to this Assessment: ENGL211;#247178

Course Outcomes and Number and Verbiage: Class Student Learning Outcome:

4. On an introductory level, [students will] demonstrate an informed appreciation of the craft of fiction by identifying and contrasting qualities of published and unpublished texts, and judging their effect on readers.

What did you do for your assessment and why:

What: As part of a larger English Department assessment, I looked at how students in the Creative Writing classroom are held accountable for readings. (Fall 2020)

Why: Although most of the 211 coursework focuses on student's creative output, at every step of the course, students are also assigned stories (in the textbook and as pdf/links) that they are required to read as a way to further develop the craft of writing. In addition to using the stories as models for the specific elements of creative writing being studied, in the class students are given quizzes on these stories; they participate in interactive online Craft Discussions on many of them; and they are required to reference them in other written assignments. All of these strategies help to reinforce the direct and fundamental relationship between effective reading and effective writing. It is imperative that students complete their required readings in the class. Anything that helps them to do so helps pave the way for their success as writers--hence this assessment.

What tools and measures did you use for your assessment:

During the Genre Module of the course, as a way to encourage originality even when working within formulaic genres, students were assigned four stories that align with or (more often) subvert the expectations of a given genre. They were expected to read and were quizzed on all four of them, and had to participate in a Craft Discussion on two of them. Philip K. Dick's "Do Androids Dream of Electric Sheep?" Brian Evenson's, "Black Bark" Donald Westlake's, "Too Many Crooks," and Aimee Bender's, "Two Days"

In the same Module, they were also given two optional stories to read that subvert the Romance genre and further supplement the lesson:

Etgar Keret's, "Crazy Glue" Rachel Swirsky's, "If You Were a Dinosaur, My Love"

For this Assessment, students took a Canvas quiz asking them which of these stories they read.

What were the results of your assessment:

All of the students active in the course took the Canvas quiz (I'm calling it a Canvas "poll" for clarity below).

In the poll"

#1) 17/17 (100%) students stated that they had read some or all of the required stories (required = they were quizzed on these stories): YES--I read some or all of them."

#2 & #3) 6/17 (35%) students stated that they had read at least one of the optional stories (optional = they were not quizzed on these stories)

(In the latter questions, I asked specifically which optional/supplemental stories they read.) 1 student read story A only

(Etgar Keret's, "CRAZY GLUE") 2 students read story B only (Rachel Swirsky's, "IF YOU WERE A DINOSAUR, MY LOVE")

3 students read both A & B (Keret & Swirsky)

Key Takeaway: 11 students (65%) did not read any of the optional stories, while all 17 students (100%) read "some or all" of the required stories.

What now:

This reinforces something that experienced teachers already know: by quizzing students (or by giving them supplemental work related to their required readings) students are more likely to complete them.

Quizzes are just one way of encouraging students to read, and while they clearly work, I'm also curious about pursuing more (and learning more about) using Readers Apprenticeship/Reading Habits pedagogy instead of just quizzes. In the way I use Canvas quizzes, in particular, they appear to assess a surface level of reading (whether the student picked up on basic details) but not the depth of the reading that students engaged in, which is obviously more important.

Changes or recommendations:

If I were to do this over again, I would likely add more details to the first question. Rather than ask a YES/NO question about whether they read "some or all" of the four required readings, I would ask which of the four they read (as I did on the optional readings in questions #2 & #3).

This time, in the interest of simplicity and to improve engagement, I did not ask about which of the individual required stories each student had read (though their separate quiz results offer evidence that the high majority of students read and passed quizzes on most of the required stories). I realized after they completed the assessment that this could impact the specific results, but not the overall point.

Name: Jim Hamm

Institutional Outcome: 1. Communication

Program Outcome: 1 **Program Outcome Verbiage:**

Courses Tied to this Assessment: PHYS&221;#247564

Course Outcomes and Number and Verbiage: 5. State the conservation principles of mass, energy, and momentum, and apply these principles to problems involving linear, two-dimensional, circular, and rotational motion.

What did you do for your assessment and why:

For my Fall 2020 PHYS&221 course, I studied my assessment of conservation of two-dimensional momentum. This is a challenging subject that requires students to work with two equations for momentum conservation, one in each of the two dimensions. Both equations are necessary to solve for the unknowns in the problem. They will also need to correctly use the components of the momentum, employing trigonometry.

What tools and measures did you use for your assessment:

I wrote a quiz that consisted of a single two-dimensional collision problem. On the quiz I asked a few conceptual questions about the problem, then had the students solve it. The students were given 30 minutes to complete the problem.

What were the results of your assessment:

Six of my 13 students did very well on the assessment, answering the conceptual questions correctly and doing well enough on the solution that I felt they had the topic mastered. Two of the thirteen students struggled with the conceptual questions and the mathematics, but I felt that with a bit more practice they could also do well on the material. Five of the students performed as though they had not seen the material before; they did not select correct equations to solve the problem, they had no idea which units they should keep track of, and they pretty much flunked the quiz.

What now:

I have reassessed the homework load I've been using. Fall quarter I had students turn in just one completed problem solution each week, and each day provided them with two to four additional problems that they should do to learn the material. It was obvious to me that many of the students were not doing any of the additional problems. (Some of them never even turned in the one required on the homework assignment.) In the future I will require students to turn in solutions to more like 8 to 12 problems per week. (I have backed off on what is required for a problem solution, however, no longer requiring as much explanation, just the mathematics of the solution.)

Changes or recommendations:

Name: Christopher Riley

Institutional Outcome: 1. Communication

Program Outcome: 1 **Program Outcome Verbiage:**

Courses Tied to this Assessment: HIST&137;#247530

Course Outcomes and Number and Verbiage: 10: Demonstrate communication skills, both written and oral, by employing primary evidence in support of carefully formed conclusions regarding the historical record of the American past.

What did you do for your assessment and why:

For my Fall 2020 assessment, I looked at whether students were able to effectively communicate their analysis of primary historical documents through the use of critical essays. I've noticed many times that students tend to insert quotes, only to follow them with phrases like, "What this is saying is...." rather than explaining the significance of the material to their larger argument. Students are also keeping track of how they study for the class to determine whether they are effectively making use of their time with the course materials. Using a rubric which specifically breaks their writing apart to examine effective communication and analysis, I hope to see improvement in their writing and critical thinking.

What tools and measures did you use for your assessment:

Critical analysis essays discussing primary documents and a rubric which looks at the effectiveness of their communication and their ability to analyze their documentary evidence within their essay.

Student survey at the beginning of the quarter which asks students to discuss their study habits and success rates using those habits. A second survey during the seventh week of the quarter to determine whether students feel their planned method of study is working. A third survey at the conclusion of the quarter to determine the students' own satisfaction with their study habits and course performance.

What were the results of your assessment:

In fall 2020, of the 29 students enrolled in the class, 22 students submitted both the first and last writing assignment for the quarter. Ability was assessed using a scoring range of 5 as a perfect score with no noticeable errors to a zero-grade representing a paper which did not meet expectations for a college-level paper. Of the 22 students, 73% scored either a four or five. Six students scored at the three level. No one scored below that. Eighteen of the twenty-two students either showed improvement over their score on the first assignment or no change. Four saw their scores drop.

In order to provide some comparison, I also looked at the scores for winter quarter and saw a marked increase in performance. Ninety-two percent of the students scored either a four or five on the last assignment, with only two scoring a three. Again, no one scored below that. Twenty-one of the twenty-five students showed either improvement or no change in their scores from the first assignment to the last, while four saw their scores drop.

I became curious about other factors and sought to determine whether having taken a previous English 101 class influenced performance, but did not find a correlation. I also looked at when during the year the course was offered and whether students had previous experience taking online classes. What I found was that 59% of the students in fall quarter reported that this was their first quarter of college. 79% of these students also reported having taken at least one online class before. In the winter quarter, only one percent of the students in the course reported that this was their first quarter in college and 100% of the students had previous experience taking an online class.

What now:

Based on the results of the assessment, I am going to recommend to my department that HIST&137 no longer be offered during the fall quarter when the majority of students are experiencing college and online instruction for the first time. I would, however, like to run this assessment with a class that meets on campus to determine if the online factor is part of the equation, or whether it's simply due to students not being (as) familiar with college-level writing expectations. HIST&137 does not have a writing pre-requisite such as ENGL&101 or 102. Perhaps it should have one given it's writing intensive

I'm not expecting to make any changes to my course over those currently underway. I already provide my students with instruction as to what's expected in terms of reading and writing. Instruction is also provided for Chicago-style citations. Much of the disconnect that I see when it comes to writing expectations seems to result from either being unfamiliar with college-expectations, or failing to take skills learned in one class (English) and applying them to another (History).

This is what I believe happened with those few who scored low in this assessment, given that most had received a score of 4.0 in their composition class. This has been documented before in previous social science division assessment work.

Changes or recommendations:

None

Name: Jody Quitadamo

Institutional Outcome: 4. None

Program Outcome: 5 **Program Outcome Verbiage:** Students will be able to solve problems gathering, interpreting, combining, and/or applying information from multiple sources.

Courses Tied to this Assessment: HIST&126;#247597

Course Outcomes and Number and Verbiage: Course Outcome 7: Examine and compare how human societies developed ways of organizing their members, particularly social stratification based on kinship systems, ethnic associations, and hierarchies of wealth, class, gender, and race.

What did you do for your assessment and why:

The quarter and class in which this assessment occurred was HIST&126: World Civilizations I, Fall 2020. Students were assessed on Program Outcome 5: Students will be able to solve problems gathering, interpreting, combining, and/or applying information from multiple sources. The contextual framework for this assessment was Course Outcome 7: Examine and compare how human societies developed ways of organizing their members, particularly social stratification based on kinship systems, ethnic associations, and hierarchies of wealth, class, gender, and race. The stated goal for this assessment was as follows: Between the beginning and end of Fall quarter 2020, each student in HIST&126 who completes both assessments within the assessment cycle (Paper #1 and Paper #2) will improve his/her/their ability to analyze and evaluate the how human societies developed ways of organizing their societies, specifically in terms of wealth, class, gender, and race as indicated by a one-level increase (Beginning, Developing, Proficient, Accomplished, Exemplary) for Criterion 2 on the Historical Essay Rubric." Interim measures will include three formative assessments: What is Civilization, Mesopotamian Society, Society of Greece and Rome.

The assessment cycle began with a concept formation lesson about the characteristics of civilization. Students completed a quiz as part of the formative process to determine their level of comprehension using Bloom's Taxonomy levels 1 and 2. Of the students who completed the quiz, 100% of them received a rating of Exemplary" (80% of higher). While this phase did not require students to gather, interpret, or combine resources, it provided the foundational knowledge needed to progress to the next step in the assessment cycle.

The next phase in the cycle required students to identify key features of Mesopotamian society. Armed with this knowledge, students then worked in groups to compare and contrast two civilizations' social, political, and economic structures. They then demonstrated their abilities to apply and analyze (Bloom's level 3 and 4) by gathering relevant primary and credible secondary sources and using them to create an anchor chart that communicated the similarities and differences between civilizations. Of the students who participated in the activity, 8% of the them received a rating of Exemplary," 40% Accomplished," 30% Proficient," and the remainder Developing."

The final stage of the cycle required students to write two papers. The first paper required students to synthesize their content knowledge and acquired research skills by gathering, interpreting, combining and/or applying information from

relevant sources" (PO5) about ancient Greek and Roman civilizations. They had to form a claim regarding the origins and nature of social stratification, choosing two social groups from each civilization to examine (slaves, soldiers, and/or women). Students then had to compare how these societies justified ways of organizing their members using the primary and secondary sources they collected. In the final paper, students completed the same assessment, but had to choose two different civilizations to compare. Both papers utilized the same rubric so students could use the substantive feedback to reflect on their mistakes and improve over time.

What tools and measures did you use for your assessment:

The main tools to track student learning included the Historical Essay Rubric, Google Sheets to collect data, and Canvas gradebook.

What were the results of your assessment:

Using the Historical Essay Rubric, the results were as follows: Rubric Criterion 2: Apply and Analyze Exemplary Accomplished Proficient Developing Beginning Student 1 Paper 2 Paper 1 Student 2 Paper 1 Paper 2 Student 3 Paper 2 Paper 1 Student 4 Paper 1 Paper 2 Student 5 Paper 1 Paper 2 Student 6 Paper 1 Paper 2 Student 7 Paper 2 Paper 1 Student 8 Paper 1 Paper 2 Student 9 Paper 2 Paper 1

In analyzing the data, the results are as follows: Students 2, 6, and 8 achieved the learning objective at the highest level (exemplary). There was no room for growth. Students 4 and 5 remained in the Accomplished" column, demonstrating no growth, but achieving the learning objective. Students 1, 3, 7, and 9 gained a one-level increase on the rubric. It can therefore be concluded that the combination of scaffolding, interim formative assessments, and the two paper assignments that allowed for reflection and growth over time helped lead to student growth.

What now:

I will not be making any changes to this assessment cycle. It has proven to be effective over the years, so I will continue to implement it.

Changes or recommendations:

Name: Jody Quitadamo

Institutional Outcome: 4. None

Program Outcome: 5 **Program Outcome Verbiage:** Students will be able to solve problems gathering, interpreting, combining, and/or applying information from multiple sources.

Courses Tied to this Assessment: HIST110;#247415

Course Outcomes and Number and Verbiage: Course Outcome 2: Analyze how and why definitions of American and national identity have developed.

What did you do for your assessment and why:

The quarter and class in which this assessment occurred was HIST 110: American Experience, Winter 2021. Students were assessed on Program Outcome 5: Students will be able to solve problems gathering, interpreting, combining, and/or applying information from multiple sources. The contextual framework for this assessment was Course Outcome 2: Analyze how and why definitions of American and national identity have developed. The stated goal for this assessment was as follows: Between the beginning and end of Winter quarter 2021, each student in HIST 110 who completes both assessments within the assessment cycle (Paper #1 and Paper #2) will improve his/her/their ability to analyze and evaluate the ideas and principles contained in the foundational documents of the United States and how they have shaped the American identity as indicated by a one-level increase (Beginning, Developing, Proficient, Accomplished, Exemplary) for Criterion 2 on the Historical Essay Rubric." Interim measures will include three formative assessments to track student achievement.

The assessment cycle began with a lesson related to American values and why/how these values often come into conflict between social and political groups in U.S. history. Students completed a quiz as part of the formative process to determine their level of comprehension using Bloom's Taxonomy levels 1 and 2. Of the students who completed the quiz, 92% of them received a rating of Exemplary" (80% of higher). While this phase did not require students to gather, interpret, or combine resources, it provided the foundational knowledge needed to progress to the next step in the assessment cycle.

The next phase in the cycle required students to identify what it means to be an American, and how definitions of American citizenship have changed over time. Students demonstrated their abilities to apply and analyze (Bloom's level 3 and 4) by reading and evaluating relevant primary and credible secondary sources to complete a graphic organizer about the Native American identity and experiences with citizenship as a non-dominant group in U.S. history. Of the students who participated in the activity, 78% of the them received a rating of Exemplary," and 22% Developing." The final stage of the cycle required students to write two papers. The first paper required students to synthesize their content knowledge and acquired research skills by gathering, interpreting, combining and/or applying information from relevant sources" (PO5) about one theme related the identity of Native Americans in the context of several themes (genocide, Manifest Destiny, property laws). They had to form a claim regarding the values that came into conflict between Native Americans and the U.S. government and how Native Americans used the power of their voice and protest to fight for their rights and interests. In the final paper, students completed the same assessment, but had to choose a different non-dominant group to analyze (e.g. African Americans in the Civil Rights Movement, women in the

feminist movement). Both papers utilized the same rubric so students could use the substantive feedback to reflect on their mistakes and improve over time.

What tools and measures did you use for your assessment:

The tools and measures I used to collect data related to the assessment included the Historical Analysis rubric, Google Sheets to collect data, and Canvas gradebook.

What were the results of your assessment:

Using the Historical Essay Rubric, the results were as follows: Rubric Criterion 2: Apply and Analyze Exemplary Accomplished Proficient Developing Beginning Student 1 Paper 1 Paper 2 Student 2 Paper 2 Paper 1 Student 3 Paper 1 Paper 2 Student 4 Paper 2 Paper 1 Student 5 Paper 2 Paper 1 Student 6 Paper 1 Paper 2 Student 7 Paper 2 Paper 1 Student 8 Paper 1 Paper 2 Student 9 Paper 1 Paper 2 Student 10 Paper 1 Paper 2 Student 11 Paper 2 Paper 1 Student 12 Paper 2 Paper 1 Student 13 Paper 1 Paper 2 Student 14 Paper 2 Paper 1 Student 15 Paper 1 Paper 2 Student 16 Paper 1 Paper 2 Student 17 Paper 1 Paper 2 Student 18 Paper 2 Paper 1 Student 19 Paper 2 Paper 1

In analyzing the data, the results are as follows: Students 6, 8, 9, and 10 achieved the learning objective at the highest level (exemplary). There was no room for growth. Students 3 and 13 remained in the "Accomplished" column, demonstrating no growth, but achieving the learning objective. Student 15 remained in the "Developing" column and demonstrated neither achievement of the objective or growth. Students 1, 16, and 17 did not show growth, and actually performed worse on paper 2. Students 2, 4, 5, 7, 11, 12, 14, 18, and 19 gained a one-level increase on the rubric. In short, 68% of the class either earned "exemplary" on both papers or showed growth over time, and 16% performed worse on the second paper. For me, I consider a growth rate of 59% or higher to be successful. It can therefore be concluded that the combination of scaffolding, interim formative assessments, and the two paper assignments that allowed for reflection and growth over time helped lead to student growth.

What now:

There were a number of students who either did not show growth, or who did worse on the second paper. While the majority of the class demonstrated growth over time, in the future I will reach out to struggling students during the formative process and spend targeted class time on the concepts they are not grasping. Targeted activities could include small group discussions and more frequent real-time formative assessments.

Changes or recommendations:

Name: Jody Quitadamo

Institutional Outcome: 1. Communication

Program Outcome: 1 **Program Outcome Verbiage:** Students will be able to communicate clearly and effectively.

Courses Tied to this Assessment: HIST&137;#247530

Course Outcomes and Number and Verbiage: Course Outcome 2: Explain how ideas about democracy, freedom, and individualism found expression in the development of cultural values and institutions.

What did you do for your assessment and why:

The quarter and class in which this assessment occurred was HIST&137: U.S. History I, Spring 2021. Students were assessed on Institutional Outcome 1: Students will be able to communicate clearly and effectively. The contextual framework for this assessment was Course Outcome 2: Explain how ideas about democracy, freedom, and individualism found expression in the development of cultural values and institutions. The stated goal for this assessment was as follows: Between the beginning and end of Spring quarter 2021, each student in HIST&137 who completes both assessments within the assessment cycle (concept map 1 and 2) will improve his/her/their ability to analyze and explain how ideas about democracy, freedom, and individualism found expression in the development of American values and institutions as indicated by a one-level increase (Beginning, Developing, Proficient, Accomplished, Exemplary) for Criterion 1 on the Concept Map Rubric."

The assessment required students develop knowledge and critical thinking skills about history and demonstrate their ability to summarize, structure, prioritize, support, connect, and communicate concepts based on what they learned. For two different U.S. historical eras (e.g. Roaring Twenties, 1950s), students had to demonstrate their critical thinking and communication skills related to the concept Culture and Society. This concept focuses on the roles that ideas, beliefs, and social mores have played in shaping the United States, as well as how various identities, cultures, and values have been preserved or changed in different contexts of U.S. history. Students had to complete a concept map" assignment that required them to organize and construct a visual framework along with a written map of course content related to this concept. The were asked to consider the following as they developed their maps: Show how religious groups and ideas have affected American society and political life. Show how philosophical and scientific ideas have developed and shaped society and institutions. Show how ideas about women's rights and gender roles have affected society and politics. Show how different group identities, including racial, ethnic, class, and regional identities, have emerged and changed over time.

Additionally, they had to consider the core concept and how much supporting detail was necessary to sufficiently contextualize and communicate the main idea. Which subtopics for a given core concept are most and least relevant Which rise to the level of key subtopic and which are more esoteric detail They then had to construct a well-organized graphical summary of their learning using a concept map/organizational flow chart that had to logically articulate important concepts, distinguish details, connect ideas, and demonstrate critical thinking. Instructional strategies used to ensure student comprehension of the concept included recorded concept formation lessons, concept formation activities, inquiry-based lessons, discussions, and higher-level questioning.

What tools and measures did you use for your assessment:

The tools and measures I used to collect data related to the assessment included the Concept Map rubric, Google Sheets to collect data, and Canvas gradebook.

What were the results of your assessment:

Using the Concept Map Rubric, the results were as follows: Rubric Criterion 1: Articulating the Core Concept

Exemplary Accomplished Proficient Developing Beginning Student 1 Map 2 Map 1 Student 2 Map 1

Map 2 Student 3 Map 1

Map 2 Student 4 Map 1 Map 2 Student 5 Map 2 Map 1 Student 6 Map 1

Map 2 Student 7 Map 1

Map 2 Student 8 Map 1

Map 2 Student 9 Map 2 Map 1 Student 10 Map 1

Map 2 Student 11 Map 2 Map 1 Student 12 Map 1

Map 2 Student 13 Map 1 Map 2 Student 14 Map 2 Map 1 Student 15 Map 1

Map 2 Student 16 Map 2 Map 1

In analyzing the data, the results are as follows: Students 2, 3, 6, 7, 8, and 12 achieved the learning objective at the highest level (exemplary). There was no room for growth. Student 10 remained in the "Accomplished" column, demonstrating no growth, but achieving the learning objective. Student 15 remained in the "Developing" column and demonstrated neither achievement of the objective or growth. Students 4 and 13 did not show growth, and actually performed worse on map 2. Students 1, 5, 11, 14 and 16 gained a one-level increase on the rubric. In short, 69% of the class either earned "exemplary" on both maps or showed growth over time, and 13% performed worse on the second map. For me, I consider a growth rate of 59% or higher to be successful. It can therefore be concluded that the combination of scaffolding, teaching strategies, and substantive feedback on the rubric allowed for reflection and growth over time that helped lead to student growth.

What now:

There were a number of students who either did not show growth, or who did worse on the second map. While the majority of the class demonstrated growth over time, in the future I will reach out to struggling students during the formative process and spend targeted class time on the concepts they are not grasping. Targeted activities could include small group discussions and more frequent real-time formative assessments.

Changes or recommendations:

Name: Guillermo Garza

Institutional Outcome: 3. Human Relations/Workplace Skills

Program Outcome: 4 **Program Outcome Verbiage:** Demonstrate safe shifting, backing and maneuvering

Courses Tied to this Assessment: CDL100;#247395

Course Outcomes and Number and Verbiage: Same as program outcome

What did you do for your assessment and why:

I hop in the truck with the students during the time they are learning to shift. To evaluate their shifting skill level.

What tools and measures did you use for your assessment:

I use formative assessment. I show and explain the shifting procedure and then I have students perform the task and evaluate their progress during their drive.

What were the results of your assessment:

There is an average of about 30% of the students who struggle to adequately synchronize their shifting.

What now:

Based on these results I feel the students would benefit from a semi-truck simulator.

Changes or recommendations:

See if we can find funding for a semi-truck simulator.

Name: Suzanne Reilly

Institutional Outcome: 1. Communication

Program Outcome: 1 **Program Outcome Verbiage:** Students will be able to communicate clearly and effectively.

Courses Tied to this Assessment: SOC&101;#247123

Course Outcomes and Number and Verbiage: 1:Communicate sociological concepts theories and findings through writing and speaking.

What did you do for your assessment and why:

When I assign papers or activities and ask students to incorporate sociological research or information from academic/scholarly websites and news into their work, many students are confused about the accuracy, credibility and authority of sources. In order to effectively communicate in sociology you must be able to assess the appropriateness of a source of information and to determine how to properly use these sources in research or to bolster a position on a social problem.

What tools and measures did you use for your assessment:

I administered a quiz to assess students knowledge about the credibility and authority of sources in their work. I conducted the assessment in Spring quarter 2021. The quiz measured student understanding of the definitions and uses of peer-reviewed sources, the differences among .org, .com and .edu sites for academic use and news literacy, particularly on distinguishing fake news from other news.

What were the results of your assessment:

In Section 4642, 26/29 students took the quiz. Students averaged 63% on the quiz. In Section 4644, 23/28 took the quiz and 71% was the average. Based on the results of the assessment, I believe students would benefit from having a stand alone library session so that a librarian can educate students on the various databases the library has, define and go over how to locate and use peer reviewed sources and more information on the authority and credibility of sources for particular research assignments.

What now:

Over the summer I will communicate with Ronda Kitchens and work with her to develop a study guide or resource page for Introduction to Sociology courses with descriptions of major assignments and the kinds of research that needs to be done for each. I will also schedule a library session so that my SOC&101 students can benefit from learning more about how to conduct sociological research and communicate what they learn in papers and assignments.

Changes or recommendations:

Name: Christopher Riley

Institutional Outcome: 1. Communication

Program Outcome: 5 **Program Outcome Verbiage:** Students will be able to solve problems by gathering, interpreting, combining and/or applying information from multiple sources.

Courses Tied to this Assessment: POLS&202;#247532

Course Outcomes and Number and Verbiage: #1 Illustrate the role of law upon society and the need for government.

What did you do for your assessment and why:

Spring, 2021.

This was expected to be a repeat of an assessment performed in 2017-2018. In the first iteration the students were in a large theatre being team-taught and working together in a face-to-face environment. The project being assessed was a mock-supreme court hearing involving a fictional case. Students researched, wrote, argued, and decided the case with little interference by instructors. Results were favorable to the continuation of the assigned project without large-scale modification. Due to the necessity forced upon us to move the course into an online format, we decided to perform the same assessment again in order to measure the effectiveness of the assignment in a virtual setting. The class was first offered online in the spring of 2020 with the instructors working separately. Each section had an online face-to-face component. After some consultation with the other instructor, I decided to attempt the group project in my class. At the time I made little modification to the original design. The results were mixed. Students found it difficult to work effectively together, largely because they considered the available class-approved technology clunky and limited. Zoom and canvas discussion/chat didn't work as well as Facebook and other outside social media outlets. I limited them to using the course-provided resources so that I could check their group activities. Student arguments were limited in research and their oral arguments lacked genuine interaction. This may have been due to a number of variables: the newness and stress of the COVID-learning situation, the lack of interaction within the confines of the project, a lack of faculty intervention through enforced office-hour visits, and the older gentleman taking the class that students deferred to as their spokesperson. Written papers from the students assessing the project collectively said the project was better suited for an in-classroom experience. Because the class remained online in the 2020-2021 academic year, I decided to make changes and try again. In the spring of 2021, I taught two independent sections (meaning they did not confer with one-another) in an asynchronous environment online. I had intended/expected to teach the two sections synchronously, but an error in the scheduling went unnoticed until after the classes had already been published which meant they were taught without live interaction. The project was altered to better suit the circumstances as a result. This time students were provided with a research project in which they were asked to individually make an argument using a fictional case outline. They could decide for themselves whether they represented the plaintiff or defense. Preparatory materials included a real decision from the US District court and an exercise where students could work together to discover the federal questions hidden within that decision which might vault the case to the US Supreme Court. This was intended to provide them with practice at creating a federal question and the legal arguments to support it using the Bill of Rights and precedent. For the final part of the assignment, students were provided with a fictional supreme court case the same case used in the original assessment and asked to create and argue their own federal question.

What tools and measures did you use for your assessment:

Preparatory materials included video lectures, the textbook chapters examining the Supreme Court, the American judicial system, and the Bill of Rights, and a class dissection of a real federal district court decision.

What were the results of your assessment:

Students were given two weeks in which to complete the project and were repeatedly encouraged to seek out the instructor for assistance. I reminded them that I understood that this type of research or thinking might be unfamiliar and that it would be to their benefit to include me in their work. I did not require it, however. Only one student sought my assistance--asking a question about the formatting of the paper. Of the fifty-five students registered for the course, only 43 submitted their work for a grade. The average score for the two sections was 67%. Much of this came down to a lack of research performed. Many of the students reported on their papers that they only looked at one or two sources. Others appear to lose focus and argued parts of the case which were not relevant. There were also a few students who appeared to take to the research project to heart and presented creative arguments which used relevant portions of the Bill of Rights and previous court decisions to support them.

What now:

Based on the results of this project, I'm going to rethink the use of it in future online offerings of POLS&202. While it appears to work well when students are able to pool their resources and thought-processes, individual students do not appear to have the necessary skills to complete the work in an online environment. Although dressed as a supreme court case, this is a simple evidence-based argumentative paper. What makes it difficult in an online setting are three related things: 1) students are unwilling to ask for help from the instructor, 2) because it's dressed as a supreme court case, students don't recognize the relevant portions of the argument, and 3) online students are much more likely to put the project off until the end of the time available which results in poor and rushed performance. In a face-to-face classroom environment, the instructor has the ability to lay out the case in real-time and explain each component of it as needed. When the groups start their work, they have peer-pressure from group members to keep them moving, and the collective memory to answer questions within the comfort zone of the group dynamic. This means students are more likely to ask questions because they can ask their peers. If no one in the group knows the answer, the entire group can approach the instructor. In this way, the individual student can avoid their fear of looking ignorant in front of the instructor (a commonly heard reason from students for why they don't ask questions). Online students are more isolated and don't appear to take on board all of the preparatory materials or instructor communications. Video announcements, emails, instruction packages, &c. appear ineffective at gaining students' attention. A survey of the student activity logs is suggestive that much of that material is either ignored or unknown. And preparatory assignments are too easily dismissed as one-offs such that students don't see the connections being made from one assignment to the next. Another aspect appears to be related to the peer-pressure I noted above. When this project is done in a classroom, there's always one or two students in each group who push the rest into action so that work is completed in a timely fashion. But online, individual students appear to wait until the day before the project is due before starting their work. The end result is that a research project that is intended to take several days to complete is hurried in a few hours, and thus doesn't present the quality, depth, or critical thinking expected by the instructor. Should this project be attempted online in the future, I expect I'll need to be much more direct in my approach. I'll need to outline the assignment as an argumentative essay and provide multiple reminders of how previous assignment built into this one. The question facing me is how to do that without the project becoming overly prescriptive with too many moving parts.

Changes or recommendations:

Name: Fran Palkovic

Institutional Outcome: 4. None

Program Outcome: 1 **Program Outcome Verbiage:**

Courses Tied to this Assessment: ART121;#247170;#ART122;#247171;#ART123;#247172

Course Outcomes and Number and Verbiage: 3. Students will be able to solve problems by gathering, interpreting, combining and/or applying information from multiple sources.

What did you do for your assessment and why:

The F20 Art 121 (Ceramics 1) students were shown demonstrations of 4 different building techniques using eight tools over the course of three different projects via Canvas video instruction. They used certain tools more than others during each assignment but individual building processes for each of the three assignments. They were assigned specific subject matter for each of the three assignments. The fourth and final assignment the student chose the subject matter and the building method.

*The outcome goal was that they would familiarize themselves with the tools and the methods of construction and then have the confidence to use a choice of all four or just one method of construction on the final projects.

Five students work were chosen at random as an assessment sampling. All of the students showed progress on the fourth assignment, the majority choosing just one methodology but several of the tools. One student out of five struggled with the methodology and tools on the first three assignments by their own and my assessment criteria *see above. Two students out of five struggled with the first two assignments but were able to pass them. Three students passed all four assignments with effort and struggle yet with final success. All students passed the course. Two students showed poor performance one failing one, and one failing two of the four building methods. One was average, two were above average, and one was excellent in their handling of the tools competently and crafting the methods with refined technique.

The students who were the most successful participated fully in the discussion forums and instructor private message systems provided on Canvas. They were able to comment on and view progress pics by their peers. The instructor was able to give them further instruction on work in progress. So it was more of a full learning community college experience. Of course the students who were the least successful posted few progress pics and generally did not participate in discussion forums.

The Ceramics W21 Art 122 class was shown demonstrations of 4 different building techniques using eight tools over the course of three different projects via Canvas video instruction. They used certain tools more than others during each assignment but individual building processes for each of the three assignments. They were assigned specific subject matter: soft slab and leather hard slab construction for each of the three assignments. The fourth and final assignment the student chose the subject matter and the building method.

*The outcome goal was that they would familiarize themselves with the tools and the methods of construction and then have the confidence to use a choice of all four or just one method of construction on the final projects.

Two students were chosen (there were only two enrolled in the class.)

One student chose all of the building methods: soft slab and leather hard slab constructions, modeling (molding the clay solid and then hollowing it out), and coil building.

One student chose only soft slab, coil and *modeling construction methods.

Both students fully participated in the discussion progress forums and private instructor message service available on Canvas. This contributed to an exchange of ideas and problems arising and solutions based on a collective learning experience.

The S21 Art 123 (Ceramics 3) students were shown demonstrations of 4 different building techniques using eight tools over the course of three different projects via Canvas video instruction. They used certain tools more than others during each assignment but individual building processes for all of the assignments. They chose to work in a specific series of projects that they developed themselves. The students chose the subject matter and the building method.

*The outcome goal was that they would familiarize themselves with the tools and the methods of construction and then have the confidence to use a choice of all four or just one method of construction on the final projects.

Two students were chosen (there were only two enrolled in the class.)

One student chose the leather hard slab construction method and vessels as their subject matter making a variety of plates and bowls. The student conscientiously contacted me on a regular basis posting progress pics in the discussion

forum and asking many questions in private canvas messaging because their peer" was MIA for the discussion sessions only posting final pics not working in a prescribed series using all different techniques and subject matter with great success except for the final glazing of the third project and the completion by the deadline of the final fourth project.

What tools and measures did you use for your assessment:

look in document above

What were the results of your assessment:

look in document above

What now:

Based on the outcomes from these three assessments this is what the instructor will change in a future distance education Ceramics class.

- The students in all three sections of the cluster classes: Ceramics 121, 122, & 123 will be required to post bi-weekly progress pics into the discussion forums.
- The students will be required to send bi-weekly PMs to the instructor for college credit points.
- This will give the students an opportunity to see and learn from the errors and solutions of others and get instruction specifically on how to improve progress in the class.

Changes or recommendations:

Name: Dennis Knepp

Institutional Outcome: 1. Communication

Program Outcome: 1 **Program Outcome Verbiage:**

1. Students will be able to communicate clearly and effectively.

Courses Tied to this Assessment: HUM110;#247320

Course Outcomes and Number and Verbiage:

1.Distinguish between gods in the Greek pantheon in written examination.

What did you do for your assessment and why:

References to Greek Mythology show up in a variety of places -- including astronomy. In the past students have been required to post in a discussion board about something in astronomy that is named after a Greek god but the results have been disappointing. All of the students wrote about constellations or planets and all of the students used online resources such as Wikipedia for their information. Everyone already knows that the constellations and the planets are named after Greek (and Roman) gods and so students were not learning anything new. I changed the assignment for Fall 2020 and Winter 2021. Now each student was assigned a moon of either Jupiter or Saturn that was named after a Greek god that is referenced in the textbook Anthology of Classical Myth.

What tools and measures did you use for your assessment:

Each student was assigned a moon of either Jupiter or Saturn that was named after a Greek god that is referenced in the textbook Anthology of Classical Myth. Students posted the following in a discussion board: 1. The name of the moon and which planet it orbits. 2. Highlights of the myth and the sources used from the textbook Anthology of Classical Myth. 3. Interesting facts about that moon from the NASA website. 4. A hyperlink to the NASA website used for the research. In this way their research was controlled rather than haphazard.

What were the results of your assessment:

The change was a complete success. Students were now learning something new about a moon in our solar system that is named after a Greek god. They were using the NASA website rather than Wikipedia. And they were getting the content of the myths from the textbook Anthology of Classical Myth rather than Wikipedia.

What now:

I will keep this assessment. I may try to find other ways to have controlled research projects like this.

Changes or recommendations:

None at this time.

Name: LIB 101 Rhonda Kitchens

Institutional Outcome: 1. Communication

Program Outcome: 1 **Program Outcome Verbiage:** COURSE GOALS:

Upon successful completion of the course, students should be able to demonstrate the following knowledge or skills. Introduction to libraries and information resources Discuss academic integrity and plagiarism Formulate a research question Create search strategies and broaden keywords Discuss information formats and evaluation Overview of Internet research Demonstration and evaluation of databases Select, locate, and retrieve resources Create an annotated bibliography that incorporates academic level research methodology

COURSE OBJECTIVES:

Upon successful completion of the course, the student will be able to:

1. Framing the research process as open inquiry
2. Evaluating types of sources
3. Search skills (boolean logic, truncation, controlled vocabulary)
4. Choosing, citing, summarizing, and evaluating sources
5. Complete an annotated bibliography.

Courses Tied to this Assessment:

Course Outcomes and Number and Verbiage: Discuss academic integrity and plagiarism

What did you do for your assessment and why:

LIB 101 is a new 2 credit library course that began Fall 2020 with 30 students. It is taught by the Faculty Librarian as part of 35 hour work week job duties. As students will be graded and assessed using TurnItIn across disciplines and academic career, I select a TurnItIn specific quiz to be given to students in the Introduction and in the final week of the course. This assessment was used Fall 2020, Winter 2021, and Spring 2021.

What tools and measures did you use for your assessment:

This is a quiz TurnItIn is using for its own purposes but fits mine as well. It asks a few background questions: Level of Education, High School, College/University, Educator, and Other. It asked the respondent to self-rate understanding of plagiarism from very strong to very weak. It asks if respondent has had a Similarity Report. Has the respondent had an instructor discuss plagiarism and proper citation in class. There are 13 questions in all. Turnitin assigns a name to the number correct, for instance, 10 of 13 is Pro. A 3 is Newbie. Students turned in their score using a screenshot of score. <https://www.turnitin.com/static/plagiarism-quiz/>

What were the results of your assessment:

Fall 2021 Pre vs After, 20.21% improvement, Winter 2021 Pre vs After Test 15.16% improvement, Spring 2021 Pre vs After Test 13.56% Improvement

What now:

I will develop a pre and post-test more specific to APA and Plagiarism outside of the TurnItIn specific concerns. I will then have more access to more specific details.

Changes or recommendations:

While it is gratifying to see change, I would like to see change in other areas of citation and documentation, as well. LIB 101 is an APA Style based course.

Name: Mercedes Gonzalez-Aller

Institutional Outcome: 4. None

Program Outcome: 6 **Program Outcome Verbiage:** Demonstrate clinical decision-making from a theoretical knowledge base utilizing the nursing process to develop patient care plans that ensure safe, effective care in a variety of settings.

Courses Tied to this Assessment: NUR231;#247432

Course Outcomes and Number and Verbiage: [6]: [Prioritize advanced care delivery using critical thinking skills to a group of less stable patients.]

What did you do for your assessment and why:

In NUR 231 students have opportunities to work with increased independence and skill, as they take care of patient's in the clinical setting, under the guidance of a registered nurse. Critical thinking skills are essential for the student nurse to keep patients safe. This requires they recognize and prioritize problems, and based on clinical decision making, implement effective interventions. During spring 2021 nursing faculty assessed the ability of the student to create independent critical thinking decisions during their delivery of care to less stable patients.

What tools and measures did you use for your assessment:

For our assessment in NUR 231 a preceptorship evaluation tool was used. The student's RN preceptor (who worked closely with the student in the clinical setting) evaluated how the student met several student learning outcomes mid-way through the quarter and at the end of the preceptorship. The outcome we chose to evaluate is shown in the evaluation tool under Manager of Care #2 Prioritize advanced care delivery using critical thinking skills to a group of less stable patients. Based on previous assessment results, this tool was adjusted in 2019 to better align with the outcome, facilitated our ability to obtain our results for this assessment.

What were the results of your assessment:

Preceptor's evaluation of students overall reflect strong execution in critical thinking skills for performance as a manager of care." The preceptor evaluation tool rates students in the following whole numbers for each of the nursing core concepts: 1=unsafe, 2=marginal, 3=assisted, 4=supervised and 5= independent. The end of program student learning outcomes has the expectation that 95% of students score 4 or above in all six core concepts, however this assessment measured one of the six core concepts only. For the above assessment measure, the class average was 4.58 (compared to a 4.63 in 2020). Individual student's scores ranged from 3.2 to 5. Thirty three percent of students were rated at a 5, 50% rated between 4.0-5.0 and 11% rated between 3.0-4.0. On further analysis, we noted that the score variations were consistent with student performance over the program. One preceptor commented on a student's evaluation that critical thinking would come with experience.

What now:

Based on the results of the assessment, faculty will continue to measure this outcome in future courses, encouraging students in their role as a manager of care during their clinical rotations. All faculty currently provide students with assignments in lecture, skill and in clinical that allow opportunities for critical thinking and decision making. Will these results change the way you teach Why or why not Do the results confirm some aspect of your teaching Based on two outlier scores between 3-3.9", faculty evaluated possible reasons. One of the two students was working night shift in obstetrics and the other in rural area obstetrics. With these two situations, students lack the opportunity to teach and discharge patients. Faculty will consider ways for students to obtain more opportunities if assigned to rural areas or night shifts.

Changes or recommendations:

This assessment is specific to nursing teaching only, as it addresses critical thinking in the hospital setting, however, results will be shared across campus during in-service.

Name: Mercedes Gonzalez-Aller

Institutional Outcome: 4. None

Program Outcome: 5 **Program Outcome Verbiage:** [PO5]: [Plan, initiate, and evaluate patient teaching including assessment of current knowledge, use of appropriate materials and techniques]

Courses Tied to this Assessment: NUR120;#247451

Course Outcomes and Number and Verbiage: [NUR 120:[4]:Apply pathophysiology, pharmacology, and therapeutic communication skills to the nursing care of clients with common conditions. (MOC)

What did you do for your assessment and why:

In NUR 120 (Beginning Nursing Concepts II) students continue to expand their theoretical nursing knowledge related to common disease states so they can incorporate and apply the knowledge in their clinical practice. In this quarter of the nursing program students move to an in-patient clinical setting where interventions include patient teaching upon discharge. In winter 2021 the nursing faculty assessed Level 1 student's ability to plan, initiate and evaluate patient teaching.

What tools and measures did you use for your assessment:

In NUR 120, a rubric was created to allow ease in assessment of the above program objective. Students were put in groups to present discharge information to patients who were hospitalized with different Musculoskeletal conditions (gout, osteoporosis, fractures, knee & hip replacement, and amputation) Students alternated playing the part of the nurse and patient. Faculty was able to assess how the students organized their information to be taught, their delivery and how they evaluated the patient's understanding of the material.

What were the results of your assessment:

After learning about the different musculoskeletal conditions above the week prior, students provided discharge instructions to their patients (colleagues) on February 29, 2021. All students scored from 28.5-30 out of 30 points (planning and initiating teaching). All students did a great job providing verbal and written instructions covering 6 domains (medications, level of activity, general care-special instructions, warning signs and follow up plan). 15 out of 18 students received perfect scores, including organization, elocution, and eye contact of their teaching information. The other 3 students only lacked in eye contact and elocution but also provided excellent information/content. All students provided some form of recognition of the patients progress and used appropriate materials/techniques. However, 0/18 students assessed the patients current knowledge prior to teaching or questioned the patient to evaluate if their teaching was effective.

What now:

Based on the results of the assessment, I am going to revise the rubric to include a) assessment of patient's current knowledge and b) evaluates patient's understanding. These will allow for a more accurate assessment. Will these results change the way you teach No. Why or why not The teaching provided by the students was exactly accurate, it is only the assessment rubric that was not optimal. Adding the above two parameters will allow a better assessment of their teaching.

Changes or recommendations:

Not applicable as specific to nursing teaching only, however results of the assessment will be shared across campus. .

Name: John Owens

Institutional Outcome: 4. None

Program Outcome: 4 **Program Outcome Verbiage:** Students will be able to recognize or articulate personal/interpersonal aspects of, or connections between, diverse cultural, social, or political contexts.

Courses Tied to this Assessment: MUSC170;#247446;#MUSC175;#247138;#MUSC174;#247447;#MUSC&105;#247136

Course Outcomes and Number and Verbiage: MUSC 105 (CO3). Identify and articulate the historical background, and the social/political/economic environment of a society that influences musical creation and performance through cooperative learning activities.

MUSC 170 (CO3): Identify and articulate the historical background of jazz, and the social/political/economic environment of the society that influenced its creation and performance through cooperative learning activities.

MUSC 174 (CO3) Identify and articulate the historical background of rock and roll, and the social/political/economic environment of a society that influences musical creation and performance through cooperative learning activities.

MUSC 175 (CO3): Identify and articulate the social and historical elements that have helped in the development of music world-wide through presentations and research projects.

What did you do for your assessment and why:

The assessment was given during the first and eighth week of each course (MUSC 105 & 175F20, MUSC 170 W21, MUSC 174 S21). The assessment was given in two parts and looked at the differences in student responses about historical, social, and cultural elements in music. In short, the initial assessment served as a diagnostic and the second assessment served as a way to evaluate student improvement.

What tools and measures did you use for your assessment:

Four point assessment rubric, which includes criteria focusing on the depth of responses and defense of claims as they relate to the historical, social, and cultural elements in music and the student's life world.

What were the results of your assessment:

When compared to the diagnostic assessment, students gained a deeper understanding of musical elements and a greater grasp of historical, social, and cultural context. Students were better at supporting assertions in their responses. There was some tendency to look at similar factors among students, which may be linked to the discussion tool used for the assessment. Students did connect the questions to their personal musical and extra-musical experiences, which was evident in the responses.

What now:

Looking at the results, there is still a need to put additional emphasis in teaching students to support their claims by referencing quality sources and normalization of relevant terms, as this will strengthen their deliberations and research. Further, there were some students that did not fully find connections between course materials and their personal experiences, as one component usually was more dominant in their response. As such, greater care can be given to this point during the initial course discussions.

Changes or recommendations:

See above.

Name: John Martin

Institutional Outcome: 3. Human Relations/Workplace Skills

Program Outcome: 5 **Program Outcome Verbiage:** Students will use proper tools during repair and diagnostic work in the lab

Courses Tied to this Assessment: AUT124;#247526

Course Outcomes and Number and Verbiage: 8. Demonstrate the ability to perform all types of brake system repairs and service.

What did you do for your assessment and why:

Assessed:ProperTool Usage

Proper use of tools is critical to a technicians job performance, efficiency, and quality of work. Teaching students to use the proper tools for each task has been an area of difficulty. After going over basic hand tools and their uses, I assigned each student a brake caliper to remove, which requires taking out two bolts of the same size. I then inspect their choice of tools before they can begin their work.

What tools and measures did you use for your assessment:

I used formative assessment, inspecting student's choice of tools.

What were the results of your assessment:

Only 33% of the students were able to select the proper tools for the job, which consists of a long ratchet and a socket of the proper size and type. Students were using incorrect sizes or styles of sockets, the wrong end of a wrench, and/or the wrong size ratchet. The issue was more prevalent for students with low levels of experience, which is to be expected. What was surprising was the number of students who had higher skill levels making similar mistakes. By the end of fall quarter 75% of the students were able to select the proper tools for tasks very quickly. The rest had improved greatly, but were still trying to use an incorrect tool too frequently.

What now:

There is no class for tool usage so we have to cram it into the second week of fall with a lot of other preliminary, yet important material. Next year, I plan to expand the tool instruction portion to include some low stakes practice and a tool identification game, before they begin to work on actual cars. This will displace other material so I have to choose wisely.

Changes or recommendations:

Name: John Martin

Institutional Outcome: 3. Human Relations/Workplace Skills

Program Outcome: 6 **Program Outcome Verbiage:** Students will demonstrate the ability to retrieve service information from manuals and online sources.

Courses Tied to this Assessment: AUT121;#247516

Course Outcomes and Number and Verbiage:

What did you do for your assessment and why:

Reassessed Wiring Diagram Practice AUT121 to see if the changes I made from last year had any impact.

What tools and measures did you use for your assessment:

Formative assessment, I watched them trace power flow through a wiring diagram. Last year only 75% of the students were able to correctly trace power flow through wiring diagram on their first attempt. All of the students who were successful on the first attempt were reading the circuit description as they traced it out on the diagram. In the past I have instructed students to read the description and trace the circuit, but I did not require them to do it simultaneously, if they chose not to. This year I required the students to stop reading the circuit description and trace out the flow of power from Point A to Point B before moving on to the next line in the description. They were to repeat this for every line that included a power flow directive.

What were the results of your assessment:

84% of the students were able to correctly trace power flow through a circuit on the first attempt. All of them were able to complete it by the second attempt. Oddly enough, COVID restrictions helped increase the percentage of successful first attempts. I had more time for each student and they had to work independently. This was due to the smaller class size and social distancing rules. The students who did not complete on the first attempt neglected to follow directions, and were trying to read a few lines at a time before tracing out any power flow on the diagram.

What now:

Next year, I will only give them one circuit description line at a time, and practice that method multiple times using diagrams of increasing complexity. I am hoping to see close to 100% success in this area because it comes after a week of intense training with wiring diagrams and electrical circuits. I may even consider adding an additional grading category to electrical projects specifically for wiring diagram use during those tasks that require one.

Changes or recommendations:

Name: Barbara Ann Bush

Institutional Outcome: 1. Communication

Program Outcome: 1 **Program Outcome Verbiage:** Students will be able to communicate clearly and effectively

Courses Tied to this Assessment: CMST&102;#247524

Course Outcomes and Number and Verbiage: #10:Implement oral and written skills to generate media content in a way that demonstrates audience awareness, ethical considerations, properly supported content, and writing consistent with professional and academic standards

What did you do for your assessment and why:

For my Spring 2021 assessment, I will look at the ways in which I hold students accountable for reading course materials and implementing them through creative work that captures their ability to write, present visual media, and analyze media content. This relates to Gen Ed Outcome 1, and to course outcome #10 (Implement oral and written skills to generate media content in a way that demonstrates audience awareness, ethical considerations, properly supported content, and writing consistent with professional and academic standards) Explain the general strategy for your course-level assessment plan here:I will use a group project and individual report for this course level assessment. The reason for this is that group work in and of itself required clear and effective communication both with me and among the students in the group. Additionally, the group project will be a way for students to pull together their research and interests in a creative way that is both structured and free form. They will be given a list of over 25 topics they can choose to analyze and report on, and then report to me which topic they have chosen. No topics will be repeated. The group project is expected to meet standards of writing and presentation that are professional, resourced, analytic in content, and largely error free. Students are given opportunities throughout the course to study media content, as they will also do in this project, but in this project (which is the capstone assignment for the course) will also give them an opportunity to create media content. Finally, groups are assigned at the start of the quarter and given space on CANVAS (under people) to work on their projects as soon as they have a topic chosen. A deadline for choosing a topic will be identified early in the quarter. This means that students will have extended time to work together and individually. The individual papers will be turned in after the projects are due so that students will have had the opportunity to view their final project in its totality and have received feedback on that project. The paper will summarize the project, assess what the student has learned while participating in the project in terms of topic knowledge, and will provide an opportunity to analyze the effects of mass media and cite sources. The paper will need to answer all parts of the prompt (there are four prompts for the essay) and will need to express ideas in a largely error free, properly organized, formatted, and cited essay that shows that they understand the content of their topic, and that they are able to critically evaluate the effects of mass media on information creation and dissemination.

What tools and measures did you use for your assessment:

The tools for assessing the project and the essay were the specific prompts given for completion of these assignments. If students follow these prompts and guidelines for the project and are able to provide analytic content, then the assessment will show that they were able to learn how to produce college level writing that communicates clearly and effectively.

My assessment of holding students accountable for reading, writing, and analysis had two parts:

For one I had students create a group project using a format of their choice (blog, newspaper, video, etc) on a pre-determined topic where they had to do the following:A comprehensive account of the phenomenon you are analyzing. This means having a variety of verifiable and credible sources. Overall, your treatment of your topic should provide clarityIdentification of misinformation (if your topic has been affected by misinformation) and where this misinformation can be traced to and the impact of misinformation. Identify how the misinformation gained traction and how it affected public understanding. Analysis as to why this topic matters: how it affects us as individuals, how it affects US society, politics, and culture. What is its appeal Examples of real-world effects. Provide examples of the phenomenon that illustrate any claims you are makingDemonstrate an understanding of how a variety of mass media have treated this topic: newspapers, various social media, broadcast news, etc. Identify its effect on US democracyYou will need to identify your sources you use in the projectYou will need to identify yourselves individually in the project media you use...if a video, by announcing your name, if a blog by putting your name next to an entry, etc.You don't need to achieve neutrality, you need to achieve providing a supported and educated perspective based on research, analysis, and examples.

2) For one I had students write an essay that had them summarize the topic, explain what they had learned about the topic, describe how they saw mass media forms affecting the delivery of the information on the topic, and where they saw any misinformation on the topic. I included an outline for what content was expected in the essay. Comprehension of readings and use of analysis was assessed by the adherence to the content expected.

What were the results of your assessment:

There was a total of 3 project groups and 10 active students (there were 12 in the class, but 2 did not actively participate). The 3 projects consisted of 2 blogs and a newspaper. Of these projects the group that created the online newspaper most captured the ability to communicate clearly and effectively. There were 3 members in the group. The content of the newspaper met all the criteria of the assignment prompts including providing a comprehensive account of the phenomenon they had chosen to study (COVID 19), identifying misinformation on the topic, analysis as to why the topic matters, examples/evidence to support claims, the effects of information on this topic on US democracy, clearly cited sources, and a clear structure that identifies contributors. The other two project groups were not as successful in meeting all of these criteria. Specifically, they struggled with providing evidence for their claim, a clear writing style that was largely error free, and analysis.

What now:

Based on the results of the assessment, I am going to re-write the assignment description. I will also provide a new discussion post where students will practice the skills they will use in the topic. I already do this to some degree, but not as specifically detailed to the project as is possible. I think I also need to set up a meeting time with each group to make sure that they are working well together and are sure of the expectations. This is an entirely online course so such a meeting might really help how students understand what is expected of them. Will these results change the way you teach Why or why not Yes. Whenever I sense something isn't working the way I have it, I change it. I need to make sure that students clearly understand the assignment and also have the skills needed to pull it off. The ability to write at the level expected and properly cite sources requires, I think, more than just specific prompts for the assignment. Do the results confirm some aspect of your teaching Yes, to a degree. Many of the students did start working on the project earlier than other assignments. This is because of my constant reminders to them that they needed to do so. They also communicated with me frequently regarding either the group project or the paper.

Changes or recommendations:

Students very much need help with writing and citations. They also struggle to understand the difference between claims and evidence. Finally, I find that helping students succeed in group work is very important. Part of this is due to personal inhibitions, but the other part is learning to incorporate the CANVAS platform more seamlessly into their college experience i.e. staying on top of messaging, notifications, and so forth.

Name: Michele Reeves

Institutional Outcome: 4. None

Program Outcome: 4 **Program Outcome Verbiage:** Describe how children acquire language and creative expression and develop physically, cognitively and socially

Courses Tied to this Assessment: EDUC&115;#247181

Course Outcomes and Number and Verbiage: CO #2:Describe the developmental sequence from conception through early adolescence in all domains.

What did you do for your assessment and why:

Spring 2021 an assessment of the above outcomes was conducted inside the EDUC& 115 course which is a required course for all students of our program. At the end of the quarter students were asked to user high level thinking about what they had learned regarding the development of children in the three domains listed above as well as the separate issue of language development. Rather than simply ask students to name or label appropriate development milestones, they were asked to Identify one item of concern they might encounter in the work place for each domain in each of the age categories of infant, early childhood and middle childhood. In order to imagine these areas of concern, students must first know what appropriate development is.

In addition to the areas of concern students listed, they were required to add a hypothetical setting in which they had observed their imagined area of concern and finally to offer research based intervention approaches. Again, knowing how to intervene or what services to suggest to families shows knowledge of and ability to describe appropriate development.

What tools and measures did you use for your assessment:

Final project as described above - students completed a written document and submitted via canvas

What were the results of your assessment:

17/19 students completed the assessment

15/19 students earned all of the points available on the rubric

What now:

After conducting this assessment it occurs to me that a pre-assessment about this topic would be appropriate at the beginning of the quarter. Had I conducted such an assessment I could show growth. I plan to implement such pre-assessments in future quarters as I become more accustomed to the assessment plans at BBCC

Changes or recommendations:

This assessment was very specific to our program so I do not see any changes at the college level necessary

Name: Jaime Garza, Heidi Gephart, and MariAnne Zavala-Lopez

Institutional Outcome: 1. Communication

Program Outcome: 1 **Program Outcome Verbiage:** 1)Students will be able to communicate clearly and effectively..

Courses Tied to this Assessment:

Course Outcomes and Number and Verbiage: 1)Students will be able to communicate clearly and effectively. 5)Students will be able to solve problems by gathering, interpreting, combining and/or applying information from multiple sources.

What did you do for your assessment and why:

Course tied to this assessment: Advising Syllabus

This assessment occurred during winter (enhanced advising) and spring quarter (assessment) 2021.

This project assessed how an enhanced advising program impacts student academic performance. Students who elected to participate in the enhanced advising program received student success information through group presentations and individual advising sessions. During winter quarter students participated in activities designed to increase their knowledge of academic and support resources, build college success skills, and improve academic performance. End of the quarter grades were reviewed as part of this assessment.

Counselors identified a cohort of first-year students who earned a GPA of 1.75 - 2.25 fall quarter 2020. These students were invited to participate in an enhanced advising program which included workshop presentations, informational sessions, and academic advising. The information and support students received was designed to improve academic performance. Currently, the counselors mentor students enrolled in CSS 100 classes, which is primarily designed for students in their first quarter of study. This assessment provided a specialized approach to assisting students enrolled in their second quarter who were struggling academically. This assessment activity aligns with Program Outcomes 1 and 5.

What tools and measures did you use for your assessment:

Students were identified based on their fall quarter 2020 GPA (1.75 -2.25). Winter quarter 2021 GPAs were reviewed for students who participated in the enhanced advising program. Winter quarter GPAs, of students who participated in the enhanced advising program, were compared to their fall quarter GPAs. Additionally, winter quarter GPAs were compared with students who did not participate in the enhanced advising program.

What were the results of your assessment:

In this assessment, 22 students were identified using the counselors advising listas having a GPA of 1.75 - 2.25 at the end of fall quarter 2020. All 22 students were invited to participate in the enhanced advising program titled Goals, Persistence, and Success (GPS). Students were invited via email, then a follow up telephone call. Eight students agreed to participate in the GPS program.

Five students demonstrated an increase in their winter quarter GPA. Although the number of participants was small, the results showed a 63% increase in GPA from fall to winter. Students who did not participate in the GPS program showed a 57% increase in GPA from fall to winter.

What now:

Based on the results of the assessment, we have identified the importance of the advisor taking a proactive approach to contacting students early in the quarter when low academic performance is demonstrated the previous quarter.

Counselors will explore ways to connect with advisees who demonstrated low academic performance in a previous quarter and provide them with information and resources regarding academic success.

Changes or recommendations:

This assessment was a snapshot of an enhanced advising program. In addition to counselors providing direct services to students, faculty, STEM Center staff, Writing Center staff, and admissions/registration staff assisted. Administrative support would allow counselors to effectively deliver an enhanced advising program to a larger group of students.

Name: Clarissa Pruneda

Institutional Outcome: 4. None

Program Outcome: 2 **Program Outcome Verbiage:** Demonstrate cultural competency when caring for patients experiencing selected health

Courses Tied to this Assessment: MA197;#247665;#MA195;#247419

Course Outcomes and Number and Verbiage:

4. Students will be able to recognize or articulate personal/interpersonal aspects of, or connections between diverse cultural, social, or political contexts

What did you do for your assessment and why:

Summer quarter 2020 looked at clinical site evaluations of students during their 198 hour Medical Assistant externship. Specifically, how the clinical site evaluated student interaction with a diverse population of patients.

What tools and measures did you use for your assessment:

Site evaluation of student surveys with each new MA preceptor the student worked with. Survey rated students on a number scale of 1-5. 5: Proficient, confident, functions independently 4: Effective, confident, functions with occasional direction 3: Safe, accurate, requires frequent direction 2: Questionably safe or accurate, requires continuous direction. 1: unsafe or inaccurate, unable to demonstrate procedures. The passing expectation for this level of education is 3" or better.

What were the results of your assessment:

All 12 students passed the course with a 100% grade percentage.

What now:

Results in grading are more based on completion of the 198 clinical hours, participation, and conduct during externship as well as actual submission of evaluation surveys. In the future may give grade for actual survey results based on how the MA student was rated.

Changes or recommendations:

If another full-time MA instructor was available more time can be spent on visitations to clinical sites to see students interaction with patients

Institutional Outcome 2 Faculty Assessment Reports

Name: IST 105 and MAP 103 2020-21 Assessment

Institutional Outcome: 2

Program Outcome: 2 Program Outcome Verbiage:

For IST 105: 2.) Solve basic electrical problems involving voltage, current, resistance, and power.

5.) Assemble, analyze, troubleshoot, and solve problems involving series, parallel, and series-parallel DC circuits using multimeters.

For MAP 103: PO7 - Students will be able to reason mathematically using methods appropriate to the profession.

Courses Tied to this Assessment: IST105;#247151;#MAP103;#247143

Course Outcomes and Number and Verbiage: IO2-

For IST 105: 2.) Solve basic electrical problems involving voltage, current, resistance, and power.

5.) Assemble, analyze, troubleshoot, and solve problems involving series, parallel, and series-parallel DC circuits using multimeters.

For MAP 103: PO7 - Students will be able to reason mathematically using methods appropriate to the profession.

What did you do for your assessment and why:

This assessment was meant to look at how the online environment impacted the students' success in assignments that require mathematical reasoning. The first issue was in instructing class using Canvas and video lessons using Zoom. This was a shift in modality from past years where Canvas was not used at all. Students had issues with the navigation of Canvas.

In IST 105, the course started with 25 students and finished with 21 because those 4 students refused to do coursework online. The use of computers was not what the students were used to. Doing the DC theory and mathematics on the white board (in the classroom on video, not a virtual white board) for all to see was a bit challenging. As the instructor I found myself having to repeat the on-line discussions again in the lab environments. For The lowest grade was 0.8 and the highest was 4.0. The average was 3.2 with 28.5% of the students getting a 4.0, which is concerningly lower than past years.

Fall 2020 MAP 103

In MAP 103, Since mathematics is one of the key skills for IST students, the assessment was done to figure out key points to enhance student success in learning mathematical methods in the IST field. Varieties of technology used to improve course delivery and presenting an interesting environment. Numbers of videos and animations with powerpoint slides were used to present a diverse atmosphere in math learning. Course delivery was more efficient after library provided tablets. It shows powerful whiteboard is a key factor in online math courses. It is suggested to have more advance tools in the future. Although the course was online, the results show ZOOM can be an effective tool for online course delivery. It is necessary to emphasize that (at least for math courses) students should be accommodated with a pc and suitable monitor in a calm and quiet environment.

What tools and measures did you use for your assessment:

Quizzes and Excel/Canvas program

What were the results of your assessment:

Acquiring grades and concluding outcomes from quizzes to evaluate student progress. Each quiz has several mathematical problems. From simple multiplication to complexes Algebra.

Using the quizzes as a basis of analysis the results were:

In IST 105: Quiz 1 showed an average grade of 143 out of 160. Or 89.3 percent average. The lowest score was 121 and the highest was 159. Quiz 2: an average grade of 282 out of 300. Or 94.0 percent average. The lowest score was 238 and the highest was 300. Quiz 3: showed an average grade of 179 out of 160. I placed bonus point questions to this quiz. All the students completed the extra point for the calculations for the DC theory mathematics. This was used to verify and solidify results from in-class learned applications for the DC theory required mathematics. Or 112 percent average. The lowest score was 105 and the highest was 250 because of the two bonus questions. Final: showed an average grade of 146 out of 170. Or 89.3 percent average. The lowest score was 96 and the highest was 195.

Although these scores look good without context, they are lower than scores on the same assessments from past years.

In MAP 103:Homeworks average 87.5, Max 100 and min 53.7; Quizzes Avg 70 Max 90 and Min 36, shows that time is a key factor to solve the problems and some technics should be applied to increase the problem-solving speed.The exam 1 average was 90.75 max 100 and Min of 55, and final exam with average 76.4, Max 92 and Min 72 (except one absent student in the final exam). A small decrease in the final compare to the mid was expectable, showing tension and pressure of final exams; as well as decreasing their energy at the end of the quarter. The result shows that we should spend less time on the numbering system chapter, just some brief examples to show the procedure converting. By improving technology and internet accessibility, they are easily able to use online converting tools.

What now:

Continued improvement using the advances in on-line aids and portals to improve cognitive learning.

Changes or recommendations:

Looking at white board tablets to aid in student transition into on-line learning systems. Labs are important learning aids for our students. So, we are going to improve the labs we get from our suppliers. Possibly look into specific computer courses to improve the student abilities to interact with computers and Canvas.

Name: Terry Pyle

Institutional Outcome: 2. Quantitative Reasoning

Program Outcome: 1 **Program Outcome Verbiage:**

Courses Tied to this Assessment: AGR241;#247112

Course Outcomes and Number and Verbiage: Analyze financial statements to determine liquidity, solvency and profitability

What did you do for your assessment and why:

For the 2020-2021 assessment of AGR 241, I was assessing our teaching of financial analysis concepts. In the past these concepts have been difficult for students. I will assess student learning through an assignment designed to have the student demonstrate the ability to calculate financial ratios and interpret their meaning.

What tools and measures did you use for your assessment:

I will use a balance sheet analysis project as my assessment measurement tool.

What were the results of your assessment:

What now:

Changes or recommendations:

Name: Terry Pyle

Institutional Outcome: 2. Quantitative Reasoning

Program Outcome: 1 **Program Outcome Verbiage:**

Courses Tied to this Assessment: ECON200;#247501

Course Outcomes and Number and Verbiage: Measuring Economic Activity (GDP)

What did you do for your assessment and why:

For my 2020-2021 assessment, I looked at a lesson on measuring and analyzing GDP which students can struggle to understand. I implemented a new learning system in this course that involves a series of graduated learning/understanding increments. The student must be able to demonstrate a clear understanding of basic principles before moving on to more complex analysis of GDP.

What tools and measures did you use for your assessment:

The tool I will use for my assessment will be the review assignment for Chapter 6 The Macroeconomic Perspective." I chose this because the review asks the student to demonstrate an ability to calculate GDP, analyze changes year over year, and extrapolate its meaning.

What were the results of your assessment:

What now:

Changes or recommendations:

Name: Gale Haley

Institutional Outcome: 2. Quantitative Reasoning

Program Outcome: 1 **Program Outcome Verbiage:** N/A

Courses Tied to this Assessment: BIOL&170;#247550

Course Outcomes and Number and Verbiage: Course Outcome: Describe the form and function of various systems including the muscular, skeletal, respiratory, nervous and cardiovascular.

What did you do for your assessment and why:

My assessment was for Fall 2020 quarter for Biol&170.

For the 2020-21 assessment, I will be looking at a problem in which 33% of students are unable to correlate a phase of the cardiac cycle to what is happening with the electrical conduction of the heart and how that translates to specific wave patterns on EKGs.

What tools and measures did you use for your assessment:

To assess the above problem, I am having students use online activities found on GetBodySmart.com. The activities demonstrate and reinforce the concepts of cardiac output, electrical function of the heart and how these are related to what is seen on an EKG. After doing the activities the students will be quizzed on specific aspects of the activities. For the unit test which includes the Cardiovascular chapter, students will be asked the same questions this year as in 2019 to see if better understanding of the above was accomplished.

What were the results of your assessment:

For Fall 2020 quarter using the above assessment issue and tool(s) for students the following was found: Using the GetBodySmart.com activities for cardiac output, electrical function and basic EKG interpretation for practice and reinforcement of these concepts. I followed up by using quiz questions that specifically evaluated student understanding of these concepts. Then I used the same unit test questions this year as compared to the 2019 class to compare student understanding of the concepts. When comparing the questions, year to year, there was a 13% increase in student understanding this year (2020).

What now:

I will be using outside online resources such as GetBodySmart.com as well as other sites that are available for students in order to increase understanding of concepts that are challenging for students to grasp.

Changes or recommendations:

I would encourage the college to continue to support/inform instructors possibly through the library, of new sites, free sites that are available on the internet for use by students for increased learning.

Name: Keith Starcher

Institutional Outcome: 2. Quantitative Reasoning

Program Outcome: 1 **Program Outcome Verbiage:**

- 1.Extract roots and raised numbers to a given power.
- 2.Determine areas and volumes of various geometrical shapes.
- 3.Solve ratio, proportion, and percentage problems.
- 4.Perform algebraic operations involving addition, subtraction, multiplication, and division of positive and negative numbers.

Courses Tied to this Assessment: MAP100;#247558

Course Outcomes and Number and Verbiage:

- 1.Extract roots and raised numbers to a given power.
- 2.Determine areas and volumes of various geometrical shapes.
- 3.Solve ratio, proportion, and percentage problems.
- 4.Perform algebraic operations involving addition, subtraction, multiplication, and division of positive and negative numbers.

What did you do for your assessment and why:

Winter 2021, I gave the students a quiz to see where they were at. During the quarter we used our interactive screens to have pop quizzes at the end of each week. The screen gave us the ability to create a wheel with their names on it, so as their name came up they were to use the screen to solve the problem along with answering a question about where this can be used in aviation. It was a great way to get the class to interact together.

What tools and measures did you use for your assessment:

Interactive screen, pop quizzes, and grading of their response with each question.

What were the results of your assessment:

We found that the interaction and comradery with each other helped them learn the subject matter easier and created a fun way to accomplish their goals. It did turn a quiz into something like a game, which challenged the students and they ended up helping each other.

What now:

I would like to give the students a survey when they are close to completion to ask about their thoughts and how they would improve on this learning experience.

Changes or recommendations:

Name: Misty Perry Assessment Report - BEdA

Institutional Outcome: 2. Quantitative Reasoning

Program Outcome: 7 **Program Outcome Verbiage:** Students will solve basic algebra problems.

Courses Tied to this Assessment: DVS80;#247509

Course Outcomes and Number and Verbiage: Course Outcome (CO) 2: Students will be able to reason mathematically.

What did you do for your assessment and why:

This course used DVS 80 on wamap.org to assess student learning. The students completed 5 Unit tests and an Exit Exam. During Fall Quarter of 2020, the students completed lessons leading up to a Skill Check. The units lead up to an Exit Exam that demonstrates they are able to reason mathematically.

What tools and measures did you use for your assessment:

Students completed lessons and took a Skill Check for each unit. When they passed the Skill Check, they went on to the next Unit. When they passed all 5 Skill Checks, they took the Exit Exam.

What were the results of your assessment:

15 out of 22 successfully completed the Exit Exam. Of the 7 students who did not complete the Exit Exam, five students quit attending class prior to reaching the Exit Exam and two students completed the Exit Exam Review but did not attempt the Exit Exam.

What now:

Based on the results of each skill check, I went over the incorrect answers with the student to see if it was an error in calculation or an error in understanding the skill. I retaught the skill if necessary and then the student attempted the skill check again. I have not had a student pass all five skill checks and then not be able to pass the Exit Exam.

Changes or recommendations:

Starfish has been a great asset to keeping the students on track. I do recommend that the surveys that starfish puts out are completed.

Prepackaged Activity Faculty Assessment Reports

Name: Brian Marion

Institutional Outcome: 2. Quantitative Reasoning

Program Outcome: 1 **Program Outcome Verbiage:**

Courses Tied to this Assessment: GEOL&101;#247598

Course Outcomes and Number and Verbiage: 9) Describe igneous processes and volcanism.

What did you do for your assessment and why:

Winter 2021 Quarter: Evaluated the effectiveness of using 3-D modeling of magma chamber bodies beneath magmatic complexes to improve comprehension of sub-surface magmatic processes.

What tools and measures did you use for your assessment:

Used 3-D models of subsurface magmatic structures to build greater comprehension in understanding 3-D dimensionality of geologic structures. The 3-D models are used to improve student ability to draft and measure 2-D cross sections of 3-D geologic structures. Measured this comprehension and ability improvement in course by formal assessment at the end of the Unit 2 (Minerals/Magma/Igneous Rocks/Volcanoes).

What were the results of your assessment:

When asked the question for students to identify different parts of the volcano subsurface on the Unit 2 exam. Average percentage of students that would get the question correct before the change was 29%. So only 29% of students would correctly identify a massive pluton structure beneath a volcano in a diagram. After implementing the change of using 3-D models of the magmatic structures, students now asked the same question have a much higher rate of getting the correct answer with 55% of students correctly identifying the massive pluton structure on the diagram.

What now:

I will continue to use these 3-D models of subsurface systems to help aid students in understanding the complexities of magmatic systems.

Changes or recommendations:

Would love to see more of these type of 3-D models utilized in science courses, I think they are a great digital hands-on tool that lets students explore concepts that are difficult to diagram in a 2-D manner.

Name: Jim Hamm

Institutional Outcome: 2. Quantitative Reasoning

Program Outcome: 3 **Program Outcome Verbiage:**

Courses Tied to this Assessment: ASTR&101;#247547

Course Outcomes and Number and Verbiage: 3. Identify lunar phases and, given a lunar phase, predict rising and setting times.

What did you do for your assessment and why:

Each quarter I teach ASTR&101, I have a laboratory where students learn about lunar phases, including their rising and setting times. One of the exercises in the laboratory is to see a picture of the moon in the sky, and from this picture deduce the time of day or night in the picture. This skill is also addressed in a weekly homework assignment. In both the laboratory and the homework assignment there are more than one question that address this, for different phases of the moon and different placements of the moon in the sky.

In the past students have struggled with exercise. They can usually identify the phase of the moon (although some students will confuse a waxing with a waning moon), but a common error is to confuse the time of moonrise with the time that the moon is highest in the sky. I addressed both those points more directly in the laboratory exercise this year.

What tools and measures did you use for your assessment:

I use two questions on the first unit test to assess this skill.

What were the results of your assessment:

For Fall Quarter 2020 the results were not good. I did not teach the lab "live," and it was done asynchronously, so I had no way of knowing if the students had viewed the preparation material I had asked them to watch. A majority of the students taking the test did not know the correct rising time of a phase of the moon. Nearly all of the students did identify the phase correctly (the students who did not confuse the waxing and waning modes, which is a matter of not remembering which is illuminated on the left and which is illuminated on the right).

What now:

I have prepared a new video that goes into the matter of rising setting times with animations I've prepared. I will not let students start the lab until they have completed watching the video. I may try embedding questions in the video using Edpuzzle; I haven't used that software yet so I'm not sure I'll have time for that.

Changes or recommendations

Name: Hannah Leaf (Capelo)

Institutional Outcome: 2. Quantitative Reasoning

Program Outcome: 1 **Program Outcome Verbiage:** Students will be able to reason mathematically (IO2).

Courses Tied to this Assessment: NUR114;#247132

Course Outcomes and Number and Verbiage: Utilize accurate methods to calculate oral and parenteral medication doses and rates within a reasonable time frame. (POC.1)

What did you do for your assessment and why:

Fall Quarter, 2020 - Nurse 114, Pharmacology.

This year, I assessed IO2 using formative assessment techniques. Within the first week of class, a 15-point pre-examination was given to determine student's incoming levels of mathematic comfort and proficiency with dosage calculations. Education was then formally implemented regarding nursing-specific math competencies. A 30-point math competency exam was then delivered to assess growth and improvement. For both examinations, a 90% benchmark was set to ensure safe administration of medications and foundational math skills.

What tools and measures did you use for your assessment:

Formative assessments examinations.

Implementation of education.

What were the results of your assessment:

BBCC Nursing began with 23 new incoming level 1 students in September of 2020. During the first month and a half of Fall quarter classes, 5 students dropped-out for various reasons; thus, results will include the 18 remaining students who completed the quarter. During the initial mathematical pre-examination given during the first week of the quarter, 3/18 students obtained a 90% or greater on the 15-point assessment. Weeks later during the formal 30-point calculations exam, 14/18 passed on the first attempt with the other four students reaching 90% on the second attempt.

What now:

Based on the results of the assessment, I am going to continue methods of instruction. These results will not change my methods of instruction, rather, I will continue to ensure students have access to practice exams and understand how to utilize their required textbooks for assistance. Food for thought encompasses the large amount of time between teaching this material and the final calculations exam perhaps we could move the examination closer to when material was taught.

Changes or recommendations:

No comments or recommendations here.

Name: Sean Twohy

Institutional Outcome: 2. Quantitative Reasoning

Program Outcome: 1 **Program Outcome Verbiage:** None

Courses Tied to this Assessment: ENGL&101;#247636

Course Outcomes and Number and Verbiage: Demonstrate clarity of ideas and sound support of assertions

What did you do for your assessment and why:

Fall/Winter 2020-2021 One of the most important things an English 101 class can teach is for students to back up what they claim (their opinion) with evidence. A problem that we often see in the English 101 classroom is that students try to back up their opinion with someone else's opinion. This creates a house of cards argument. Opinion should be backed with data, facts, numbers, etc. when possible. While I don't want students to HAVE to use only one type of evidence, I do want their evidence to be more fact/data driven. Because of this, I decided to make a short video on primary, secondary, and tertiary sources. These three types of sources have varying definitions* but generally primary sources are focused on raw data (like a poll), secondary sources are focused on interpreting those primary sources (like news articles about a poll), and tertiary sources are more focused on opinions (taking multiple primary and secondary sources and drawing large conclusions). *tertiary sources can also include reference material like dictionaries In this video, I am going to describe the three types of sources and try to emphasize that tertiary sources are not college appropriate. I will compare essays to last year, before I had a lecture video on these three types of sources, and see if it increases the number of data-driven types of evidence.

What tools and measures did you use for your assessment:

A short video and Comparisons between different sets of essays.

What were the results of your assessment:

Overall, it did feel like students in my fall and winter English 101 courses increased the amount of professional and scientific evidence used in their essays. In the film review essay, for example, I had much fewer essays that attempted to show that the film was good because some reviewer online said it was good (and many more essays that relied on demonstratable evidence from the film and the expectations the film met). One problem I faced is that I was planning on comparing essays from spring of last year and fall and winter of this year. However, I failed to remember that spring of last year was the first quarter I did not teach composition and previous courses were face-to-face. This made collecting data very unproductive. It did reinstitute the value of having students turn in essays electronically whether in a face-to-face section or not.

What now:

Based on the results of the assessment, I am going to continue to use this video. In the future, the video will be mandatory. I have already added a requirement in the rubric about avoiding tertiary sources.

Changes or recommendations:

None

Name: Kristen McCrae

Institutional Outcome: 2. Quantitative Reasoning

Program Outcome: 1 **Program Outcome Verbiage:**

Courses Tied to this Assessment: NUTR&101;#247610

Course Outcomes and Number and Verbiage: 3. Assess current nutritional status through personal dietary analysis.

What did you do for your assessment and why:

Students typically struggle with these calculations, and they don't always understand that their answers are completely unreasonable. One example from Fall quarter includes a student response of 441,795 Kcal/day. This calculation is inappropriate and the student submitted it as a valid answer, with no understanding of the inappropriateness of their calculation.

What tools and measures did you use for your assessment:

In Fall quarter 2020, I collected baseline data using my EER and AMDR calculation assignment to evaluate how many students incorrectly calculated these numbers. During Winter 2021 for the same assignment, I added written instructions and a video reminding my students about PEMDAS to evaluate how many students would correctly calculate their EER and AMDRs.

What were the results of your assessment:

During Fall 2020, 7 out of 28, or 25%, incorrectly calculated their EER. After adding PEMDAS information into the assignment, 3 out of 26, or 11% incorrectly calculated their EER.

What now:

I will continue to include the PEMDAS explanation in this assignment.

Changes or recommendations:

I have fixed the issue with calculations, however I have discovered there is still a discrepancy with number sense and the ability to discern if a number is reasonable. I plan on consulting math faculty to determine a course of action to improve this aspect of the course. I plan on continuing this assessment and will work with math faculty in the fall, and add elements as needed for winter and beyond.

Name: Math Department

Institutional Outcome: 2. Quantitative Reasoning

Program Outcome: 2 **Program Outcome Verbiage:** Students will be able to reason mathematically

Courses Tied to this Assessment: MATH90;#247605;#MATH94;#247600;#MATH97;#247559;#MATH98;#247601

Course Outcomes and Number and Verbiage: ú MATH 090 #6 Uses conversion factors when converting units of measure.

ú MATH 094 #6 Uses conversion factors when converting units of measure.

ú MATH 097 #4. Converts word problems to algebraic sentences when solving application problems.

ú MATH 098 #4. Converts word problems to algebraic sentences when solving application problems.

What did you do for your assessment and why:

For our 2020-21 assessment, we looked at a redesign of our precollege math focus on dimensional analysis based on feedback from the Chemistry and Physics departments. The assessment was done during Fall and Winter quarters of 2020-21.

What tools and measures did you use for your assessment:

Key problems on exams in each of the affected courses were identified to assesses this objective. Also, IR was asked to provide data on success rates of students in CHEM 121 aggregated based on if students took these prerequisite courses or tested out of them.

What were the results of your assessment:

For Math 90 and 94, 54/60 (90%) students successfully completed the dimensional analysis problem on the exam. When a similar question appeared on the final exam, only 36/57 (63%) correctly answered the question.

The topic is addressed again in Math 97 and 98 at a deeper level, including chemistry applications. For these classes, 62/77 (81%) successfully completed the dimensional analysis problem on the exam. When it came to the final exam, 60/68 (88%) students correctly answered the question.

From IR, it was reported that 24/58 (41%) of students who took Math 98 were successful (2.0+) in Chem& 121. There were 67/107 (63%) students whose initial placement was higher than Math 98 were successful (2.0+) in Chem& 121.

What now:

Initially it appears that students are learning the outcome in their math courses, but perhaps long-term retention continues to be a concern. The department also has further deeper data analysis questions for IR to investigate to get at the root cause at the disparity of success in Chem& 121. We want to investigate options to better spiral review content to help students retain important pre-requisite knowledge. We also want to go deeper at look at this issue on a unit level versus a course level. This should give us a better understanding of the issue.

Changes or recommendations:

That the Chemistry and Math departments continue to collaborate to help students seamlessly and successfully transition from pre-requisite math courses to science content courses.

Name: Benjamin Altrogge

Institutional Outcome: 2. Quantitative Reasoning

Program Outcome: 1 **Program Outcome Verbiage:** IO2 Quantitative Reasoning: Students will be able to reason mathematically

Courses Tied to this Assessment: AVF112;#247371;#AVF114;#247400;#AVF142;#247373;#AVF251;#247377

Course Outcomes and Number and Verbiage:

AVF 112: Course outcome #9: Calculate Aircraft Performance.

AVF 114: Course outcome #2: Apply mathematical rules and concepts in the analysis of aerodynamic theory and aircraft performance.

AVF 142: Course outcome #1: Construct a VFR flight plan with the required aircraft performance calculations and pertinent weather data.

AVF 251: Course outcome #1: Simplify aircraft performance data calculations to maximize efficiency in cross country flight planning.

What did you do for your assessment and why:

Our assessment for the 2020-2021 school year in the aviation flight program revolved around assessing institutional outcome #2: students will be able to reason mathematically. Using our seven-year assessment schedule, we assessed four classes within our program that contain a common element of calculating aircraft performance. This allowed us to assess our course outcomes and program outcomes in support of the institutional wide assessment of students being able to reason mathematically.

The following supporting outcomes in each of the respective four classes were assessed:

AVF 112: Course outcome #9: Calculate Aircraft Performance.

AVF 114: Course outcome #2: Apply mathematical rules and concepts in the analysis of aerodynamic theory and aircraft performance.

AVF 142: Course outcome #1: Construct a VFR flight plan with the required aircraft performance calculations and pertinent weather data.

AVF 251: Course outcome #1: Simplify aircraft performance data calculations to maximize efficiency in cross country flight planning.

What tools and measures did you use for your assessment:

AVF 112: We used the standardized FAA written test results to analyze how students performed on calculating aircraft performance. Since this class was taught virtually this year it gave us an opportunity to evaluate and assess the use of a virtual white board in teaching performance calculations.

AVF 114: This class issued a pre and post assessment test on aircraft takeoff and landing distance calculations. Students were given a set of non-graded questions on exam 2 that related to the content in the third unit of material covered in the class related to takeoff and landing distance calculations. On exam three the students were given the same questions in an attempt to assess the level of comprehension that was gained on the subject matter from the class.

AVF 142/251: Both classes have a comprehensive flight exam in which takeoff, climb, enroute, descent, and landing performance is calculated and evaluated during an actual flight. The pass/ fail rate of this comprehensive test combined with an analysis specific to aircraft performance was used to assess these classes.

What were the results of your assessment:

AVF 112: While the class average on the comprehensive private pilot FAA written test dropped from 84% in 2020 to 82% 2021 the picture was slightly different when the specific area of aircraft performance on the test was evaluated. Here we saw measurable improvement from 44% of the 2020 class deficient in the area of aircraft performance calculations to 36% of the 2021 class deficient. Aircraft performance calculations also slipped from the third highest deficiency on the FAA comprehensive written exam to the fourth highest deficiency for the 2021 class.

AVF 114: We found that 0% of the students got any of the three (3) non-graded takeoff and landing distance performance questions correct on exam 2. After the third unit of related material was covered in-class the same questions were administered on exam 3 with the following results:

92% of students got question 1 correct

77% of students got question 2 correct

100% of students got question 3 correct

AVF142/251: First time pass rates for these two classes was 97%. There were no known failures for preflight aircraft performance calculations for the 2020-2021 school year. Enroute calculations for the diversion portion of the flight yielded a 100% pass rate.

What now:

There seems to be a disconnect between the content that is being tested in the classroom/FAA written test and what is being tested in the flight stage exams (practical flight tests). While students are clearly being brought up to proficiency in the program for the real-world flights there may be some areas in which the classroom instruction could be improved.

Changes or recommendations:

FAA written tests and AVF 114 theory of flight both tend to teach aircraft performance calculations for a broad range of aircraft makes and models; however, our real-world flight tests in AVF 142/252 are specific to the Beechcraft aircraft we fly. The following recommendations have been given to correct for a weak area in our curriculum. AVF 112: Homework and worksheets developed to re-enforce non-Beechcraft aircraft performance calculations for AVF 112. AVF 114: Additional homework developed to reinforce how weight affects stopping distance calculations in relation to deficiencies found on question #2 in the assessment activity for AVF114. AVF 142/251: Increased surveillance of the preflight calculations on the stage 2 and Stage 4 checkrides for AVF 142/251.

Name: Shawn McDaniel

Institutional Outcome: 2. Quantitative Reasoning

Program Outcome: 5 **Program Outcome Verbiage:** Students will be able to demonstrate competent cutting and welds to appropriate welding codes.

Courses Tied to this Assessment:

WLD207;#247322;#WLD205;#247274;#WLD130;#247268;#WLD151;#247271;#WLD153;#247273

Course Outcomes and Number and Verbiage:

What did you do for your assessment and why:

What tools and measures did you use for your assessment:

Welding 207 used an exercise that had each student calculate the carbon equivalency of a material when they are given a formula and specific chemistry of a particular steel example. The students in the class were given an assignment that had 2 questions related to this calculation.

Welding 205 used an exercise where the students were required to determine tensile strength of a steel plate they welded together. The plates were welded together, cut out and then pulled apart with a hydraulic press. Each student processed the plate after welding, cut it and machined it to size, that was measured. The forces needed to pull it apart were measured. Using the force needed to pull it apart, and the area of the piece, the students were asked to determine the tensile strength of the weld.

Welding 130 assessed quantitative reasoning by assigning an exercise that required students to convert metric dimensions into inches, and vice versa. This assignment was provided as a table that provided a value, then asked the student' to provide the value of the conversion.

Welding 151 assessed the students' ability to determine dimensions on drawings provided in the text used. In this exercise, the students were required to solve some equations to determine the size and location of various features on a weld drawing. Assignment 8c required each student to calculate some dimensions on a part drawing. Three questions related to quantitative reasoning were included in this assignment: #4, 5, and 14.

Welding 153 assessed quantitative reasoning by assigning a project that required the student to perform calculations to create a paper pattern, that would be used to cut out a pipe, and form it into a hemispherical end. The students were given the pipe size (diameter) and a step by step set of instructions that clearly provided the method to calculate 8 dimensions that would be used to create the pattern. Each student was evaluated on the on a variety of criteria, one of which accuracy of the final part that was cut out and formed based on the directions given.

What were the results of your assessment:

Welding 207 The results were less than desired. Only 17% of these questions were answered correctly.

Welding 205 The results of this assignment showed that 83% of the students were able to correctly determine the tensile strength of a material when given the correct formula and specific values.

Welding 130The results of this assignment displayed that just over half of the students were able to convert a value in one system to another. This was less than expected.

Welding 151 The results of this exercise varied, and of the 24 answers, 13 were correct. Some of the results were attributed to the students needing to find locations and determine the values to be calculated. Of the incorrect answers, approximately half can be determined to be incorrect due to the students using information from the wrong locations on a drawing, and providing the correct mathematical answers, but from the wrong values on the drawing.

Welding 153 Each of these assessments show the ability of a student to use quantitative reasoning to determine how to set welding equipment, to determine appropriate weld sizes, to calculate where to cut materials, and how to determine where and how to cut material to obtain correct functioning of a welded/ fabricated item.

What now:

Welding 207 This outcome has led to a plan to provide some additional training to assist the students in this class. The material will be additional review of how to multiply fractions.

Welding 205 The welding department is pleased with this outcome, and will continue with the instructional methods used in this class.

Welding 130 This assessment has led to a plan to provide additional training on how to solve ratio equations.

Welding 151 This outcome leads the welding department to consider working more closely with the MAP101 instructor to bolster the students' ability to determine these fractional dimensions.

Name: Chemistry Department

Institutional Outcome: 2. Quantitative Reasoning

Program Outcome: 2 **Program Outcome Verbiage:** Students will be able to reason mathematically.

Courses Tied to this Assessment:

Course Outcomes and Number and Verbiage: CHEM& 110 (Chemical concepts with a lab)

#5--Identify the role of chemical reactions in daily life and write or interpret equations.

What did you do for your assessment and why:

Assessment will run fall (2020) through spring quarter (2021)

Like many online courses, CHEM&110 has weekly discussions. I have noticed that students often struggle to support their claims in their discussion with evidence and/or data. Students need more explicit instruction on this. I developed additional instruction and support (video support, examples/nonexamples, and sentence prompts) for students and evaluated the effectiveness.

To set a baseline, I analyzed a discussion where evidence/data is desirable for a strong response prior to making the changes. After implementing the additional support measures, I assessed the same discussion questions the next quarter to look for the impact on student use of data.

Though not related to the institution outcome of reasoning mathematically, I also wanted to assess the use of discussions in my course in other ways and did so concurrently to this assessment. I chose to adjust my grading scheme for discussions to eliminate partial credit (i.e. changed the rubric to all-or-nothing) in order to increase motivation for students to provide high-quality posts. I incorporated scaffolded support for the first several weeks of the quarter to support students struggling to receive the discussion credit. I informally reviewed discussion quality overall throughout the quarter (especially after the first three weeks) to compare to previous quarters. Finally, in winter quarter, I explored students' perceptions of discussions as related to their usefulness to the course and learning.

What tools and measures did you use for your assessment:

I used a simple rubric for assessment to track changes in the use of data2 student effectively uses data/evidence to support claims1 student makes attempt to use data/evidence but evidence is misinterpreted, does not support argument or is otherwise used ineffectively0student does not attempt to use data/evidence to support claims
Quality of discussion posts overall was (subjectively) assessed by instructor based on detail and depth of responses and quantity of students receiving full credit.

Students' view of discussion posts was assessed in an anonymous survey offered as extra credit (all gets extra credit if 80% complete survey) during winter quarter.

What were the results of your assessment:

Prior to the changes, less than 30% of students were using data/evidence at all, let alone effectively in their discussion posts for questions where the use of data would be expected or beneficial to a response. After the changes, that number went up to 68% using data and all of those used it effectively.

From the instructor's perception, posts overall improved dramatically in quality and content, both from earlier quarters and within the quarter as weeks progressed. For example, the following samples highlight how one student visibly improved their posts throughout the quarter and how that compares to quarters past:

Week 2 Discussion Response

You could use Legos to model matter by how close you put the pieces together. If you connect all the pieces super close to one another (like if you were building a Lego brick) and each individual piece is an atom. The closer they are, the more mass and less volume there is."

Week 8 Discussion Response (same student)

The Flint water crisis was an incident in Flint, Michigan where their water supplies got contaminated. It got contaminated because of the lead pipes they were using leaching - which means that the molecules in the water were getting contaminated with lead. I think it happened because of corrosion. Corrosion is when metals start rusting due to a chemical reaction. When trying to keep the water clean with chemicals, it reacted with the lead pipes and thus got lead contaminated into the water. Adding more chemicals to stop the corrosion only made it worse. At the end of the crisis,

the city had to suffer many deaths, sickness, and loss of fresh water and money. I cannot imagine the amount of money the damage was worth."

In comparison here is a representative sample of a student-response to the same week 8 discussion from a quarter prior to these changes:

The flint water crisis is when Flint Michigan decides to change its water source. They used lead pipes which contaminated the water. They wanted to change the water source to save 200 million dollars for the next 25 years. The worst result of it was how 12 people were killed and many others were sick."

Over 80% of students taking the course winter quarter reported they found the discussion at least somewhat useful to learning the material, with the majority of these students rating them as extremely useful".

What now:

I will continue employing discussions in my CHEM&110 course along with the changes I have included (grading, support, examples, etc.) as the data suggests this improved student ability to reason mathematically and by interpreting data and using evidence to support their conclusions; and because most students do report finding value in the discussions for their learning. I will also work on discussion questions themselves to include more prompts that support mathematically reasoning to increase student opportunities to put into practice these valuable skills. Through this process I realized there were far fewer questions within the discussions for data interpretation which I would like further highlighted in the course as a STEM class.

Changes or recommendations:

I recommend that the college explore training for faculty on writing effective discussion prompts (and assessment in general) and be intentional about providing opportunities for faculty collaboration (e.g. workshops, stipends etc.). I feel I would benefit from working with other experienced faculty to come up with more real-life examples for data interpretation and mathematically reasoning to incorporate into my course. We have many on campus with strong and varied skills (in this and other areas) and should utilize their expertise in affective and intentional ways.

Name: Mercedes Gonzalez-Aller

Institutional Outcome: 2. Quantitative Reasoning

Program Outcome: 2 **Program Outcome Verbiage:** Students will be able to reason mathematically using methods appropriate to the profession.

Courses Tied to this Assessment: NUR114;#247132;#NUR220;#247421

Course Outcomes and Number and Verbiage: [NUR 114: 1]: [Utilize accurate methods to calculate oral and parenteral medication doses and rates within a reasonable time frame.]

[NUR 220:2] [Deliver safe and effective physical, psychosocial, cultural, and spiritual care to the whole person in a variety of settings.]

What did you do for your assessment and why:

InNUR 114 (Introduction to Pharmacology) students are introduced to the nursing principles of medication administration. In addition to exploring the nursing implications of common medications, students are expected to demonstrate knowledge in dosage calculations. For fall 2020, we measured the student's ability to accurately calculate dosages, for given patient medication scenarios. InNUR 220 (Advanced Nursing Concepts II) students expand their knowledge related to complex disease states so they can incorporate and apply the knowledge in their clinical practice. Nursing students must perform accurate drug calculations to safely administer medications to their patients. For this reason, in winter 2021 the nursing faculty assessed Level 2 student's competency in accurately calculating drug dosages.

What tools and measures did you use for your assessment:

On week one ofNUR 114, students were given a low-stakes 15 question math quiz to evaluate student's ability to compute. Students were given the name of the medications, their concentration and the specific ordered doses & were asked to provide the number of milliliters or tablets to administer. On week 2 of the course students were instructed on additional math knowledge for more advanced mathematical dosage calculations. Finally, on week 9 or 10 of the course the students are given the final calculation exam to assess how they met the student learning objectives/course outcome.On the first week of the quarter inNUR 220 students were given the opportunity to practice calculations with a practice worksheet. The passing score for the calculations test was set at 27/30 and those students scoring under 27 were given the opportunity to retake the test a week later. The retake exam is a high-stakes exam in which students who failed it would be out of the program.

What were the results of your assessment:

NUR 114 (Introduction to Pharmacology): The fall course started with 23 Level one students. For the initial calculations test, 13/23 (56.5%) of the students passed the test. During the first 6 weeks of class five students withdrew from the course for varied reasons: thus results will be analyzed based on the 18 remaining students who completed the quarter: For the initial 15 question test, 3/18 (17%) obtained a score greater than 90%. For the second 30 questions test weeks later, 14/18 (78%) passes on the first attempt. The remaining four students reached 90% on the second attempt. For information only: 2 of the 5 students who withdrew passed the initial calculations test.NUR 220 (Advanced Nursing Concepts II): All students met the 90% benchmark on the quarterly calculations exam on the first attempt.

What now:

Based on the results of the assessment, we are going to continue instruction methods and encourage more practice opportunities to ensure confidence and competency.

Changes or recommendations:

All students remaining in the course were successful and they were given opportunities for learning. As stated, will continue instruction methods and encourage practice.This assessment is specific to nursing teaching only as it only addresses medication calculation dosages. However, results of the assessment will be shared across campus during In-service.

Name: Dick Wynder

Institutional Outcome: 2. Quantitative Reasoning

Program Outcome: 6 **Program Outcome Verbiage:** Students demonstrate the ability to retrieve service information from manuals and on-line sources"

Courses Tied to this Assessment: AUT223;#247279

Course Outcomes and Number and Verbiage:

What did you do for your assessment and why:

Students were assessed on their ability to look at the business side of the repair. They were required with each repair order to find the parts from two vendors, specifically Lake Auto Parts and O'Reilly's Auto Parts. They accessed the vendors through our parts account login and could price and locate the parts in the vendor's system inventory.

What tools and measures did you use for your assessment:

After finding and choosing a vendor and part, the student was required to calculate from our cost, total cost including sales tax and then add a 25% markup not including sales tax, compare that to manufacturer list price and choose the lower value of the two and include that in a hand written estimate.

To complete the estimate, the student would then find the flat rate labor for the repair and calculate a \$10/hour fee. (Note: We do not actually mark-up parts 25%, nor do we always assess a labor fee. This was to help them understand the business end of the trade)

What were the results of your assessment:

In all cases but two, the students struggled with these calculations. The two exceptions were more mature" students who are or had been married and both have children. Of the remaining students, half could calculate a sales tax (interesting enough, none knew the actual sales tax rate in the area), but could not quickly figure a mark-up to create an estimate. The flat rate was no problem for any of them.

What now:

Short of including an actual business class as part of the degree, I will need to instruct the students outside of the shop environment on simple business practices and necessities like a reasonable mark-up for profit and the inclusion of sales tax for payment and remittal. I have taught all of that in the MAP 101 and the AUT 105 classes in the past, but because of Covid-19, none of these students took those classes as they were all shifted to a different platform for the last two school cycles. In MAP 101 the students are required to create an estimate for a large repair and calculate sales tax, labor, mark-up, and margin. In AUT 105 they are required to create an Excel spreadsheet for the same thing, but build the spreadsheet with formulas placed in the cells to calculate all of that for them. Regardless, I will take time to instruct in all of this in a classroom environment during the winter AUT 213 class and the spring AUT 223 class. The requirement to create an estimate will remain the same.

Changes or recommendations:

Name: Theresa Calip

Institutional Outcome: 2. Quantitative Reasoning

Program Outcome: 1 **Program Outcome Verbiage:**

Students will be able to solve problems by gathering, interpreting, combining and/or applying information from multiple sources.

Courses Tied to this Assessment: BIOL&260;#247626

Course Outcomes and Number and Verbiage: Demonstrate an understanding of the reasons for the appearance of new and emerging diseases

What did you do for your assessment and why:

For my 2020-21 assessment, I evaluated and assessed how students engage with and understand epidemiological data regarding disease transmission as obtained from graphs, tables, and writings from the scientific and popular literature, and public health and scientific websites. Undertaking this during a year of global pandemic, and 24/7 media availability madesense.

What tools and measures did you use for your assessment:

Per original: Fall 2020:

Pre-Pandemic, the course material on Epidemiology and disease transmission required basic understanding of the terminology in disease reporting and tracking, but did not require them to demonstrate an understanding of how the data are 1) generated and 2) used to inform decisions about disease transmission and the consequences.

The assignment will involve use of the Grant Co. Health District Website. Students will be tasked with reading and reviewing case counts, demographics, and the generated graphs and tables for the impact of covid-19 in our community. They will also be comparing this data with that of the state and the U.S.

While epidemiology is a standard unit in this course, and includes how to interpret data and graphs, I developed an entire extra module based on the virus SARS CoV2, Covid-19, and the newly developed vaccines. However, by the end of Fall 2020, it was apparent from quiz and exam results that I had to re-formulate my approach with assessing student understanding of epidemiological data in and of itself.

For Spring 2021, I decided to develop a pre and post test assessment tool to better quantify student understanding and mastery. During the first week of the term, they were given a short-answer quiz (for points, no matter their answers) that asked specific questions about viruses, Covid-19, transmission, and the definitions of epidemiological metrics often mentioned by the media and our local health district. The metrics (for Grant county) included incidence rate, prevalence, and death rate. They were instructed to answer based on their current understanding. The last week of the course gave them the same quiz, with a couple of extra questions about the specifics of vaccines and the changes in the local data.

What were the results of your assessment:

The results were mixed. The pre-test results were not surprising - just 15% understood the concept of incidence and could read the included graph or table. Post-test, however, just over 70% of students post-test had a correct understanding of how to interpret epidemiological data, even when it was specific to one disease, i.e. Covid-19. The answers often reflected conflation and confusion of some term; defining "incidence" as "prevalence" in a table was the most common error.

What now:

Beginning Fall 2021, I am going to repeat the pre and post test model with a couple of modifications. First I will administer two pre-tests; one on microbes specifically (for example, the difference between bacteria and viruses), and one on epidemiology and data. And to make the results easier to quantify, these tools will be framed as multiple-choice or fill-in. While I thought I could rely on quiz and exam results alone for my own "big picture" it's clear that another tool is needed.

Changes or recommendations:

The number of new terms, microbes, diseases, and data-especially in the last unit of this course-is remarkable. I need to add more ways for the students to assess and quiz themselves throughout the term to assure their mastery of some important concepts. The use of some tools (like EdPuzzles) will help as will having a face to face component in the future.

Name: Dennis Knepp

Institutional Outcome: 2. Quantitative Reasoning

Program Outcome: 5 **Program Outcome Verbiage:**

PO5 Students will be able to solve problems by gathering, interpreting, combining and/or applying information from multiple sources.

Courses Tied to this Assessment: PHIL&120;#247127

Course Outcomes and Number and Verbiage: 3. Prove validity using predicate logic.

What did you do for your assessment and why:

Proofs in Predicate Logic is the culmination of the Symbolic Logic course because it covers so many topics including Boolean Operators (and, or, not, ifthen, if and only if), the deductive rules of inference (Modus Ponens, Modus Tollens, Hypothetical Syllogism, Disjunctive Syllogism, Conjunction, Simplification, Addition), and the rules for dealing with predicate logic quantifiers (Universal Instantiation, Universal Generalization, Existential Instantiation, Existential Generalization). Teaching proofs in Predicate Logic in Canvas has always been difficult in part because the predicate logic symbols are not available to students when they write out their proofs in the essay questions in the quizzes. However, a recent Canvas update has included the necessary symbols such as the backwards capital E used for the Existential Quantifier.

I made significant changes in my PHIL&120 Symbolic Logic course for Spring 2021. I increased the number of quizzes (from 14 to 18) but made them worth fewer points each (from 50 to 30 points each). Most importantly, I included a quiz on Venn Diagrams because I believe that the rules of categorical logic are a good background for performing well in proofs with Predicate Logic. Unfortunately, there are no effective ways to do Venn Diagrams in Canvas and so students had to print a document, fill in the diagrams, and then upload it into their assignment.

What tools and measures did you use for your assessment:

Winter 2021 : Quiz 10 : Chapter 26 : logic proofs with predicate logic.

Spring 2021 : Quiz 17 : Chapter 26 : logic proofs with predicate logic

What were the results of your assessment:

The Winter 2021 average score on the logic proofs in Predicate Logic quiz was 74%. The Spring 2021 average score on the logic proofs in Predicate Logic quiz was 53%. Part of the discrepancy is caused by the fact that the Spring 2021 course had many more 0s from students who did not submit this quiz. If we remove the 0s, then the averages do get closer: 92% for Winter 2021 and 83% for Spring 2021.

What now:

Frankly, this is surprising. My changes seem to have made things worse. I think that there are just too many variables in play here to make a direct comparison and so I plan on gathering more data. I also plan on splitting the proofs in Predicate Logic into two quizzes (the first will require translation whereas the second will not) so that the 60 points total (from two quizzes of 30 points each) will be closer to the older point total of 50. I think that the difference in scale is part of the problem.

Changes or recommendations:

I wish that there was an easier way for student to complete Venn Diagrams on Canvas. Currently my students must print a document, complete the diagrams by hand, and upload an image. I wish that they could complete the diagrams in a quiz without all that hassle because I believe that Venn Diagrams are the easiest way to get students to do logic proofs early in the quarter before the content becomes more difficult. I also think that the categorical logic of Venn Diagrams is good background for the proofs in Predicate Logic at the end of the quarter.

Name: Developmental English

Institutional Outcome: 2. Quantitative Reasoning

Program Outcome: 1 **Program Outcome Verbiage:** We do not have a program outcome.

Courses Tied to this Assessment: ENGL98;#247528;#ENGL99;#247634

Course Outcomes and Number and Verbiage:

1. Analyze texts and present their meanings in writing

What did you do for your assessment and why:

Spring quarter 2021. We used the pre-packaged assessment for applying graphical data to a research-supported argument paper. We wanted to see if direct instruction in interpreting graphical data would help students transfer that skill to support an argument in writing.

What tools and measures did you use for your assessment:

We taught students to interpret the story told by graphical data (charts, graphs) so they could use that as evidence to support a claim in writing. Students wrote analytical narratives to explain the data and then helped each other through a peer review process online to deepen the analysis. Students were given guiding questions for their peer review to help them focus on diving for deeper meaning. Finally, students searched for graphical data related to their own research, analyzed and interpreted that data, and then synthesized the evidence into their support for their argument.

What were the results of your assessment:

While most students were able to accurately interpret the data provided to them, and were able to help each other in that analysis, very few were able to successfully synthesize those interpretations within support for their claims. Some of the problems with this assessment task were that the topics students chose for research did not always lend themselves well to finding relevant graphical data; students had trouble effectively transferring the skill of data analysis to their research essays; this was spring quarter and students were tired and we have very few students in spring quarter vs other quarters; we did not begin the instruction in graphical data early enough in the quarter; and this should have been a Developmental English assessment, but it was not. Because COVID impacted our ability to place students in English classes, we ended up with far too many students who were ENGL & 101 rather than Developmental English. Therefore, the assessment is not wholly accurate.

What now:

We should attempt this assessment again or at least continue to provide instruction in graphical analysis and application in research. By fall 2021, the placement system for English should be smoothed out, so the assessments should be more representative of our population and we will have a larger sample of students. Instruction in analyzing graphical data needs to begin earlier in the quarter as well. We can use the library services more extensively to help students find relevant graphical data for their research topics.

Changes or recommendations:

These pre-packaged assessment tasks might be more meaningful and effective if there were a way to have departments or programs assess and analyze together. For example, ENGL and COMM could assess together, or CSS with Psych.

Name: Preston Wilks

Institutional Outcome: 2. Quantitative Reasoning

Program Outcome: 2 **Program Outcome Verbiage:** Quantitative Reasoning: Analyze the financial health of a business by interpreting business data obtained from financial statements

Courses Tied to this Assessment: BUS102;#247383

Course Outcomes and Number and Verbiage: Course #7: Calculate the due date, interest, and maturity value of a promissory note.

Course #8: Calculate the finance and interest charges for credit card purchases and bank loans.

Related to both of these outcomes is the principle of Compounding Interest.

What did you do for your assessment and why:

I have been disappointed in the students' ability to properly solve compounding interest questions on the Final Exam. I wanted to see if adding a specific Quiz on Compounding Interest (prior to the Final Exam) would help increase performance on the Final Exam related to those 5 questions found on the Exam, pertaining to this principle. I used the average scores for my students from Fall 2020 and compared the average scores for my students from Spring 2021. The Spring 2021 students took a specific quiz on compounding interest 2 days prior to the Final Exam. The Quiz included step-by-step prompts to help them arrive at the correct answers. The purpose of including the step-by-step prompts in the Quiz was an attempt to transfer to students logical steps that they should use when solving similar compounding interest problems that they will encounter on the Final.

What tools and measures did you use for your assessment:

I used average scores from students from Fall 2020 on the final exam and compared them to the average scores from students from Spring 2021. The same 5 questions were used on both exams. The students in the Spring 2021 class received the specifically-focused aforementioned Quiz, while the Fall 2020 class did not.

What were the results of your assessment:

The average score for Fall 2020 students on those 5 questions was 1.7 out of 5. The average score for Spring 2021 students on those same 5 questions was 2.6 out of 5. That represents a 55% increase in performance. The only variable that was different between the 2 classes was the extra Quiz on the compounding interest that I required the Spring 2021 class to take.

What now:

I believe the results indicate that the students need more opportunities to solve compounding interest problems than what they were receiving prior to this experiment. I will be utilizing this Quiz/learning tool going forward in this class to help students with learning compounding interest. I'm very happy that I took the time to develop this learning tool, which will be utilized going forward!

Changes or recommendations:

I will be utilizing this Quiz/learning tool going forward in this class to help students with learning compounding interest. I'm very happy that I took the time to develop this learning tool, which will be utilized going forward!

Name: Christy Welch

Institutional Outcome: 2. Quantitative Reasoning

Program Outcome: 1 **Program Outcome Verbiage:** (No program outcome)

Courses Tied to this Assessment: BIOL&221;#247519

Course Outcomes and Number and Verbiage: 10) Explain Hardy-Weinberg equilibrium and use the tools of population genetics to calculate allele frequencies, identify and explain the results of natural selection, and describe and discuss the impacts of other causes of population change.

What did you do for your assessment and why:

For my 2020-21 assessment, I looked at a lesson students typically struggled with and either revised or incorporated making sense and use of data in either numerical, tabular, graphical, or word forms in BIOL&221 and evaluated whether the revision/incorporation of data improved/had a positive impact on student learning. I have noticed on the lecture exam, lab exam and the final exam that 30-35% of the students in BIOL&221 do not answer the questions regarding Hardy-Weinberg equilibrium correctly.

What tools and measures did you use for your assessment:

I planned to utilize activities/resources other than the usual lab/lecture I normally do for this topic. I used McGraw-Hill Connect (which the students are already using for other assignments, but not this one) and at a resource from HHMI (Howard Hughes Medical Institute):

Population Genetics, Selection, and Evolution

In this activity, students use simulations with beads to explore the concepts in the short film *The Making of the Fittest: Natural Selection in Humans* about population genetics, the Hardy-Weinberg principle, and how natural selection alters the frequency distribution of heritable traits.

After doing these at least two of these alternative activities, I used the same exam questions I used last year to determine if improvement has occurred.

What were the results of your assessment:

I found that 61% of the Hardy-Weinberg questions were answered correctly on the final exam in 2019, and that 81% were answered correctly on the final exam in 2020.

What now:

I am going to continue to use the McGraw-Hill Connect program to assign students both Smart Book" and Homework review assignments, as I have found this to be a very effective tool. This program requires students to interact with the reading assignments and to practice homework problems using interactive manipulatives. It repeats areas where the students need more practice. If I use the HHMI Hardy-Weinberg Lab again, I will need to find a way to alter it so that the key is not readily available online (as it currently is).

Changes or recommendations:

I highly recommend the use of programs such as McGraw-Hill Connect. The combination of Smartbook and interactive homework assignments is highly effective.

Name: Mariah Whitney

Institutional Outcome: 2. Quantitative Reasoning

Program Outcome: 2 **Program Outcome Verbiage:** Students will be able to reason mathematically.

Courses Tied to this Assessment: BIOL&100;#247393

Course Outcomes and Number and Verbiage: 11. Demonstrate knowledge of evolution and natural selection by defining each including what makes them different, and using an appropriate example to illustrate these concepts

12. Demonstrate knowledge of evolution by discussing fitness, adaptation, and the patterns of natural selection, and describing the evidence for evolution.

What did you do for your assessment and why:

Spring 21 Biology 100 Assessment

In Biology 100 students struggle understanding the evolution and mutations. Previously (Fall 20), I had an EdPuzzle video that showed the rock pocket mice (found all over the Sonoran Desert). The video discussed the geologic changes that occurred due to a lava flow and the genetic mutations in the coat color gene of the mice. The addition of this video did not seem to increase the student's understanding of evolution in either the origin of mutations or the impact of a changing environment (both discussed in the video).

In Spring 21 I added a homework activity that went into greater detail about the rock pocket mice, including data about mutations as well as environmental data collected over time. I wanted to see if the increase in actual data given to the students would increase students' understanding.

What tools and measures did you use for your assessment:

Spring21 Biology 100 Assessment

I looked at the Spring 21 Final (where evolution is tested for the first time, it is in the last unit of the course). Specifically Question 53. I compared this to their Homework Ch. 11 Activity on this same topic.

What were the results of your assessment:

Spring 21 Results: 14 students received Q53 on their final exam; 11 answered the question and 3 chose not to answer it or ran out of time. One of the 11 earned no points, three earned 1.75/2 points, and 7 earned 2/2 points. When comparing the student's performance on the final to their homework, a correlation was found. The four students that earned a score of zero had either not completed the homework activity (n=1), or had partially (n=2) or completely (n=1) copied an answer key found online for the activity. This was discovered as the student answers were either identical or nearly identical to the key even though some questions/directions on the activity had been changed. Those that had completed the assignment earned either perfect or nearly perfect scores on that written question on the final. The activity (increasing data and application) increased student's ability to apply their knowledge to a particular example (as seen by perfect or near perfect scores not typical of a written answer on evolution). However, the new issue of academic honesty came into play here. Those that had plagiarized the online key did not actually learn the content and were unable to answer the test question related to it.

What now:

I will continue to include this new homework activity (as it was effective for those that completed it), but will need to include more info on academic honesty (which is already in my syllabus in great detail) somewhere in the course.

Changes or recommendations:

Future steps for the college: a greater campus-wide emphasis on the crucial nature of academic honesty. Not only telling students about it, but teaching them why it is important to themselves, and society as a whole. Having required training as part of their first-year student experience should be required.

Short-term patch: some sort of pre-made canvas page/module that ALL instructors paste into their course about the importance of academic honesty, WITH BBCC BRANDING. This will show solidarity in the importance of this topic and continuity across courses.

Name: Ethan Tonnemaker - AGR 110

Institutional Outcome: 2. Quantitative Reasoning

Program Outcome: 6 **Program Outcome Verbiage:** Students will be able to reason mathematically using methods appropriate to the profession.

Courses Tied to this Assessment:

Course Outcomes and Number and Verbiage: Discuss the scope, structure, and economic impact of the Columbia Basin Irrigation Project. Describe basic hydrological concepts. Apply basic principles of irrigation. Explain the relationship of soil, water, plants, and atmosphere. Interpret water quality testing results/data. Calculate precipitation rates. Discuss irrigation water sustainability, efficiency, and uniformity concepts.

What did you do for your assessment and why:

This assessment was not completed during the scheduled 2020-2021 academic year. This assessment will be conducted the next time the course is offered during the 2021-2022 school year.

What tools and measures did you use for your assessment:

What were the results of your assessment:

What now:

Changes or recommendations:

Name: Ethan Tonnemaker - AGR 211

Institutional Outcome: 2. Quantitative Reasoning

Program Outcome: 6 **Program Outcome Verbiage:** Students will be able to reason mathematically using methods appropriate to the profession.

Courses Tied to this Assessment:

Course Outcomes and Number and Verbiage: Identify when a plant is a weed or not a weed depending on where it is growing. Identify the costs of controlling weeds, to a dollar per acre basis. Describe the competition factors of weeds to crops when given the type and size of weed, to include nutrients, water, and available space requirements. Identify weeds by applying plant anatomy and morphology. Categorize plants into their proper taxonomic family based on external morphology. Identify crop plants and weeds, which are members of the same taxonomic family. Classify weeds by life cycle into categories of winter annual, summer annual, biennial and perennial when provided with an identification list. Define the means of spread or dispersal of a given weed. Classify means by which weeds spread into sexual or asexual. Select an herbicide based on the mode of action.

What did you do for your assessment and why:

This assessment was not completed during the scheduled 2020-2021 academic year. This assessment will be conducted the next time the course is offered during the 2021-2022 school year.

What tools and measures did you use for your assessment:

What were the results of your assessment:

What now:

Changes or recommendations:

Name: AGR 241 2020-2021

Institutional Outcome: 2. Quantitative Reasoning

Program Outcome: 2 **Program Outcome Verbiage:** Students will be able to reason mathematically

Courses Tied to this Assessment: AGR241;#247112

Course Outcomes and Number and Verbiage: Analyze financial statements to determine liquidity, solvency and profitability

What did you do for your assessment and why:

For the 2020-2021 assessment of AGR 241, I was assessing our teaching of financial analysis concepts. In the past, these concepts have been difficult for students. I will assess student learning through an assignment designed to have the student demonstrate the ability to calculate financial ratios and interpret their meaning.

What tools and measures did you use for your assessment:

I will use a balance sheet analysis project as my assessment measurement tool.

What were the results of your assessment:

The average score was 19.3 out of 20 and the low score was 18.

What now:

While mechanically the students were able to accurately complete the math in the balance sheet analysis, I felt less confident in their understanding of the results of the analysis. Moving forward I will assign a few more problems and require an explanation of the analysis.

Changes or recommendations:

Name: Ryan Duvall

Institutional Outcome: 2. Quantitative Reasoning

Program Outcome: 2 **Program Outcome Verbiage:** IO2 Quantitative Reasoning: Students will be able to reason mathematically using methods appropriate to the profession

Courses Tied to this Assessment: BIM180;#247195;#BIM190;#247225;#BIM280;#247188

Course Outcomes and Number and Verbiage: BIM 180, Learning outcome2.Design, create, format, and edit basic Excel spreadsheets and charts.

BIM 190, Learning outcome4.Work with functions and formulas.

BIM 280, Learning outcome2.Design, create, format, and edit complex Excel spreadsheets and charts.

What did you do for your assessment and why:

We wanted to assess if our students were reasoning mathematically. We see that many of our students were doing a good job at this but some students still struggled with the more complicated formulas in Excel in our BIM 180, 190, and 280 classes. In these three classes collectively, we had 22 students in the winter with a total of 36 test taken. Out of those 36-test taken, only four students did not pass their test on the first attempt. A passing grade is an 85% or higher. The average score was a 94.41%. Of the four students who did not pass their test on the first attempt this equates to only 11% of test taken did not meet the minimum of 85% on their first attempt the average score was a 73.25%. As you can tell from the data, our students are doing great in their classes but there is still room for improvement. The common thing we saw was that students were having trouble with the more complicated formulas. To help with this, we wanted to encourage students to take advantage of the Mindtap trainings to help them learn the formulas and the mathematical reasoning behind the formulas better. These trainings consisted of the ability to watch a video, practice what you just saw, and then apply by answering a question without any help.

What tools and measures did you use for your assessment:

To help with this, we wanted to encourage students to take advantage of the Mindtap trainings to help them learn the formulas and the mathematical reasoning behind the formulas better. These trainings consisted of the ability to watch a video, practice what you just saw, and then apply by answering a question without any help. We looked at their test scores on their first attempts of their test and overall credits earned.

What were the results of your assessment:

Previous to encourage students to use the trainings in Mindtap, 11% of the test taken in those three classes did not pass their test with an 85% or better. In winter of 2020 students were required to come into our lab and test and work if they needed help. In the winter of 2021 due to Covid, students were learning on line and with encouraging students to use the training tools, some did and some did not. We had a total of only 17 students in our BIM 180, 190, and 280 classes collectively. They had a total of 38 first attempts with an average score of 88.92%. of those 38 first attempts 9 did not pass on their first attempt which equaled 23.68%. The average grade of those test that did not pass was 71.77%. With all this said, we can look a little deeper and see that in the winter of 2020 on the four retaken tests that all four of them passed on their second attempt. When looking at 2021, all nine retaken tests passed on their second attempt as well. The important thing to look at is that with a total of 22 students they earned collectively in these 3 classes in the math related portions of the class a total of 36 credits while in the winter of 2021 that a total of 17 students earned a total of 38 credits in the math related portion of the class. We see that each student earned 1.63 credits in 2020 and in 2021 each student earned 2.23 credits. This shows us that students are taking more credits in their classes and achieving more. This is a positive and great thing.

What now:

There could be many reasons on why score were lower in 2021 due to COVID and classes being taught online, but in the end, students achieved more and progressed further in their classes. We will continue to assess to see if we can improve the average scores in our classes but overall, students are still doing great. The scores were not bad on average.