The Assessment Times

Harold Washington College Assessment Committee (HWCAC)
Fall 2018
Webpage: www.ccc.edu/hwcassessment

HWC Mission

Harold Washington College is a student-centered institution that empowers all members of its community through accessible and affordable academic advancement, career development and personal enrichment. To fulfill this mission, Harold Washington College focuses on the following core values: We embrace human diversity; care about the whole student; offer responsive and relevant education; pursue academic excellence; assess to improve learning; build community; foster global citizenship for social justice .
Through these core values, we strive to embody and honor the vision of Harold Washington, former Mayor of Chicago.

Committee Members

Chair: Carrie Nepstad

Vice-Chair of Unit Assessment: Erica McCormack

Vice-Chair of Gen Ed Assessment: Jeffrey Swigart

Secretary: Yev Lapik

Research Analyst: Fernando Miranda-Mendoza

Online Learning Assessment Coordinator: Jen Asimow

Coordinator of Co-curricular Assessment: Jeffrey Swigart

Unit Liaison for Biology: Aigerim Bizhanova

Unit Liaison for Business/ CIS: Bral Spight

Unit Liaison for English, Speech, Theater: Amy Rosenquist

Unit Liaison for Humanities & Music: David Richardson

Unit Liaison for the Library: Todd Heldt

Unit Liaison for Math: Camelia Salajean

Unit Liaison for Physical Sciences: Allan Wilson

Unit Liaison for Social & Applied Sciences: Domenico Ferri

Unit Liaison for World Languages & ELL: Matthew Williams

Working Members:

Loretta Visomirskis

Jennifer Vogel

From the Chair

Carrie Nepstad

Greetings HWC Community,

The Assessment Committee work is in full swing!

Fall highlights:

- Assessment Liaisons from each department did a presentation during Faculty Development Week. As we move forward, liaisons will be preparing materials that all faculty can view online in an effort to share their work within the department, but also more broadly with the full HWC community.
- The committee spent the first three weeks planning and preparing for the HLC visit.
- We are in the final stages of preparing reports for the General Education Humanities assessment and the Quantitative Reasoning assessment.
- We are currently in the process of administering the assessment of our general education goal for Civic Engagement.

As you all know, the Higher Learning Commission Peer Review visit took place during the first week of October this year. The Assessment Committee spent one full meeting with the reviewers in a closed session in room 1046 in an effort to show the peer reviewers what it is like to sit in on an Assessment Committee meeting. Many Assessment Committee members attended all of the open sessions throughout the visit, and what became evident through all of those conversations is that the assessment work we do at HWC impacts or relates to many other aspects of the college. It really is a part of our culture. Our process is far from perfect, and we continuously work to improve it, but I can say without a doubt that it is absolutely connected to our mission - it says so, right in the mission statement!

The Future

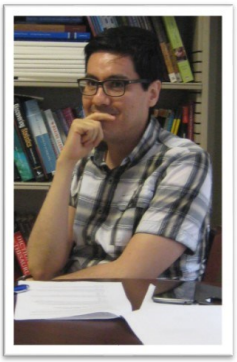
Moving forward, the committee is in the process of building a more formal role for co-curricular assessment within the assessment structure at HWC. Co-curricular assessment is focused on areas where student learning occurs outside of or alongside academic work. This includes areas such as tutoring, advising, the library and computer labs, and other student service areas. It also includes student clubs and campus life. For the past fifteen years or more, HWC assessment work has focused solely on the academic side of the house (student learning outcomes in various units of study such as general education, program, or courses). Now, we are also going to consider student learning throughout our community. We know we can't capture all learning - this is impossible. Instead, we can focus together on the aspects of learning that are most important to all of us with the goal of supporting student learning across all areas of the college. I'm personally very excited about this new branch of assessment work. I look forward to creating more partnerships. To be continued!

In This Issue

CITY COLLEGES of CHICAGO
Harold Washington
Education that Works

Research Analysis:
Analysis of Assessment Data

Fernando Miranda-Mendoza



One of the main charges of the Harold Washington College Assessment Committee (HWCAC) is to analyze student assessment data. HWCAC relies on carefully planned and executed assessments to obtain reliable data and make recommendations based on the analysis of these data. HWCAC uses the following six-stage process to systematically structure its assessment endeavors:

1. Student Learning Outcome Definition.
2. Assessment Tool Design.
3. Pilot Assessment Tool.
4. Administer Assessment.
5. ***Data Analysis.***
6. Support Evidence-Based Change.

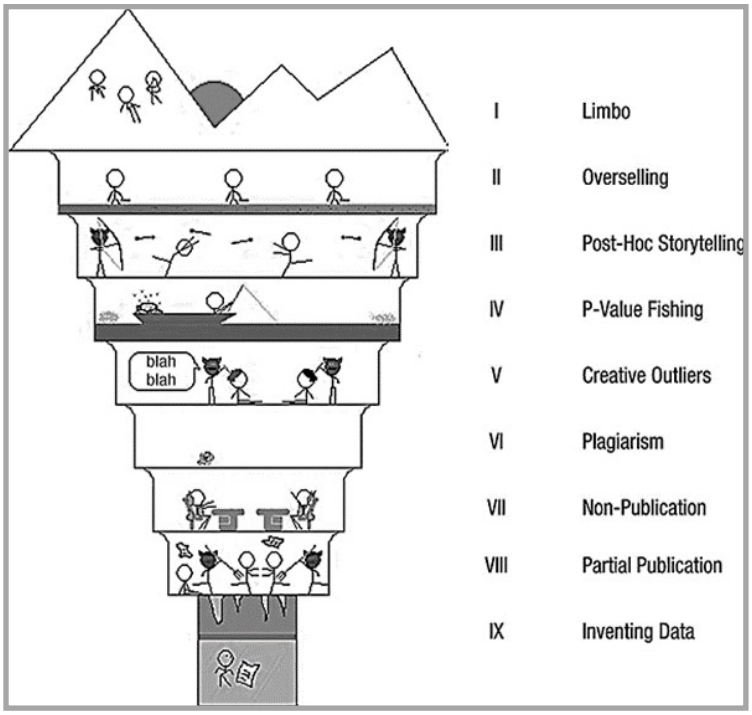
It may appear as if a research analyst's duty begins at stage five, but often an analyst's involvement starts at stage two, since an appropriate assessment tool design is of utmost importance to guarantee reliable data are collected. HWCAC creates various types of assessment tools, tailored to discipline and learning outcome of interest. However, due to the nature of student assessment and HWCAC's own philosophy, typical assessment tools involve voluntary response surveys. Data collected this way always carries some form of bias that prevents us from making *causation statements but allows us to make association statements. Thus, a typical HWCAC finding would never read like "If a student takes Assessment 101, then he/she will get a PhD in Assessment" but, instead, would be closer to "Taking Assessment 101 and getting a PhD in Assessment appear to be associated." As elementary statistics textbooks emphasize, associations are not the same as causations!*

So, how does HWCAC typically analyze data? Our current analytical framework stems from the work of former research analysts Phil Vargas and Sarah Kakumanu. They built a careful approach where classical and innovative statistical techniques are used to analyze data and, in lieu of an experimental control variable, investigate the influence that academic factors might have on student performance in a given assessment tool. HWCAC relies on academic data obtained through OpenBook (our institution's web-based reporting and analytics system that is accessible by all faculty, staff, and administrators at CCC) for these investigations. Even though some identifying information (usually student ID) is needed at first, student and instructor information is fully anonymized for the analysis. This is one of our safeguards to ensure that we uphold our charge of never using assessment for evaluation of faculty. Each assessment activity is unique, but there are several factors HWCAC frequently focuses on. For example, the committee often investigates how the number or type of successfully completed courses relate to student performance on an assessment. Due to our philosophy, there are also several factors HWCAC chooses to ignore. For example, the committee never involves ethnicity or geographic data into a data analysis.

One of the most recent assessments that exemplifies the close collaboration between a research analyst and a unit-level liaison is the Math 118 assessment project (lead by Camelia Salajean) that began in the spring 2017 and will conclude this semester. A "pretest vs posttest" design was used to allow us to directly compare student data. There were frequent conversations throughout this unit-level project, that resulted in an improved tool and a sophisticated analysis last semester.

As with any study involving statistical methods, HWCAC is aware of the strengths and limitations of our various analyses. We do not "prove" general principles, nor do we discover educational "laws"! Moreover, we are aware of the possibility of lurking variables (those variables not considered, by accident or purposefully, that are ready to jump on us!). As highlighted earlier, our analyses typically lead to association statements, so we avoid making causation statements. Recently, we have begun to move away from a perceived overreliance on p-values (a frequently misunderstood measure that has no simple definition, as it can be seen, for instance, in https://en.wikipedia.org/wiki/P-value) that has permeated many scientific studies, so we look for ways to supplement p-values with other statistical measures. This new approach follows recent recommendations given by the American Statistical Association (see https://www.amstat.org/asa/files/pdfs/P-ValueStatement.pdf).

Although our approaches may not always be ideal, we constantly strive to use (and not abuse!) proper statistical techniques to analyze assessment data and hope our findings help our institution continue to improve student learning.



The Nine Circles Of Scientific Hell…
(from https://journals.sagepub.com/doi/full/10.1177/1745691612459519)

Diverse Measures: Direct and Indirect Assessment Efforts

Erica McCormack

The HWC Assessment Committee has a rich tradition of creating tools designed to answer our questions about student learning. This is one of the aspects of our culture of assessment that the HLC team found interesting, as it is not the norm at many institutions of higher learning. The HWC Assessment Committee has made this part of our practice due to experiences in the past of using tools designed by outside organizations that weren't primarily intended for (and therefore not especially relevant to) a community college population. It is one of the things that has made our assessment work so diverse and exciting.

We are not constrained by what someone somewhere else thinks would be interesting to know about student learning. Instead, we (faculty and staff working together on and beyond the HWC Assessment Committee) get to ask our own questions about student learning and design tools that are intended to address those specific concerns.

Sometimes the questions we have about student learning deal with students' perceptions of their learning, and this necessitates what we call an "indirect measure" of their learning. Asking students to reflect on what they learned and describe their learning themselves is an indirect assessment of their learning.

On the other hand, we often want to create a tool to measure directly student learning related to a particular student learning outcome. This is called a direct assessment since it helps us measure to what degree students are or are not meeting a particular outcome, regardless of whether they themselves would say that they are meeting the outcome when asked.

These types of assessment efforts are complementary. As you read the Assessment Times articles or the annual reports prepared by the committee, you might notice how different types of assessment tools are used in order to address different types of questions. This committee thinks that assessment should always be meaningful, and in order to achieve that, it will focus on different types of questions at different times.

We hope this will prompt your own reflection on what your questions about student learning are and how you can develop a tool (either individually in your own course sections or in consultation with departmental colleagues across larger instructional units) to assess student learning both directly and indirectly. Your HWCAC colleagues are here to help talk you through that process too, so don't hesitate to talk to us about your ideas and your questions!

Gen Ed Assessment: Quantitative Reasoning and Bad Stats

Jeffrey Swigart

In fall of 2017, we administered a general education assessment on quantitative reasoning to 1128 HWC students from an enrollment of 12830, thus a sample of 8.79%. One of the outcomes was to recognize misleading statistical graphs. Our research analyst Fernando Miranda-Mendoza recently completed the initial analysis and found that students taking many STEM classes struggled just as much as non-STEM students in recognizing such misleading statistics. One reason for this may be that many STEM students take algebra and calculus classes without ever taking a statistics class, and therefore it may be beneficial to encourage STEM students to take statistics even if not required. Another reason may be that we all need better training in recognizing bad stats. This connects well with our 2014 assessment on information literacy and our findings on students needing better training in recognizing bad sources of information. We will have more details soon in a full report on our overall findings.

In 2015 a statistical study made national news with headlines claiming that a glass of red wine is equivalent in health benefit to an hour at the gym. As exciting as this might sound to wine drinkers, we must be trained to be suspicious of such headlines. If we took the time to dig deeper, we would discover that the original study was done on rodents looking at a specific element of red wine called resveratrol. As outlined in a 2015 article in the Deccan Chronicle, we would have to drink at least 100 bottles of wine per day to get the same health benefit as the rodents in the study. This is a good illustration of how important it is that we get some training in statistics and be slow to believe fancy headlines.

From: https://i.kinja-img.com/gawker-media/image/upload/186cx3jgpdy66jpg.jpg

Reference:

Deccan Chronicle. (2015). A glass of wine does not equal an hour in the gym. Retrieved from https://www.deccanchronicle.com/151221/lifestyle-health-and-wellbeing/article/glass-wine-does-not-equal-hour

Assessment of Learning Online: Qu'est-ce que nous pouvons apprendre des cours de langues étrangeres en ligne?
or
What can we learn about learning from our foreign languages online courses?

Jen Asimow

This semester started off with a bang as we moved directly into preparing for the HLC visit. A large part of the self-study looked at what we at HWC are doing about Online Learning in terms of assessment, development, stabilization, and growth. We were fortunate that the Assessment Committee has always (at least in my memory) included the online learner in our college-wide assessments of general education. We have done this by reaching out to faculty volunteers who then reach out to their students to participate in our assessment practices. From these willing participants, we have always had a pool of students who take classes wholly or partially online (or hybrid). The philosophy behind this practice is that we don't need to disaggregate the online student from the face-to-face student as they are all learners at HWC and should therefore be included in the assessments equally.

When Online Learning moved to HWC from the District Office, the Assessment Committee began to consider ways to indirectly assess learning online in terms of modes of delivery and systems that support learning at a distance. You may remember that last year we delivered a survey about student perceptions of their learning online. The results were very informative (http://www.ccc.edu/colleges/washington/departments/Documents/HWCAC/Online%20Assessment/HWCAC%20-%20Online%20Assessment%20-%202017%20Report%20Student%20Perceptions.pdf). From those results, we began discussing ways to look more specifically at learning units where students reported statistically stronger connections to their online learning than in other units. The program that received the statistically higher scores from students was Foreign Languages. This piqued all of our interests. What is so great about the online foreign language courses? Is it their design? Is it their connection to the instructors? Is it the textbook and associated materials? We began to consider that we can possibly learn something from these online foreign language courses that can be adapted or included in other online classes. Who knows?

We are currently in the process of teasing out how we can get to the answers to the questions above. Hopefully, we will have something in place by the end of the semester so that students in the online foreign languages courses can again provide some insight into their learning, what works well, and what we can do to improve it. Look for those answers in next semester's *Assessment Times.*

Unit assessment in Biology: Pilot Assessment in Introductory Biology

Aigerim Bizhanova

In Spring 2018 semester, with the help of the Biology Assessment Committee, we designed a pilot assessment survey for Biology 121, Introductory Biology for science majors. The survey assesses student learning of twenty core concepts taught in Biology 121. All twenty core concepts are closely aligned with the student learning outcomes focusing on the following fundamental topics: basic principles of atomic structure, chemical bonds, organic macromolecules, cellular organization, major metabolic pathways, enzyme function, flow of genetic information, and mutations and their role in cancer.

The pilot survey consists of 20 multiple-choice questions. Most of the questions are considered to be at the level 1 (understanding) and level 2 (comprehension) based on Bloom's taxonomy. Few questions of the survey are at level 3 (application) of Bloom's taxonomy. The pilot survey was administered in 5 sections of Biology 121 at the end of Spring 2018 semester. A total of 92 students took the survey.

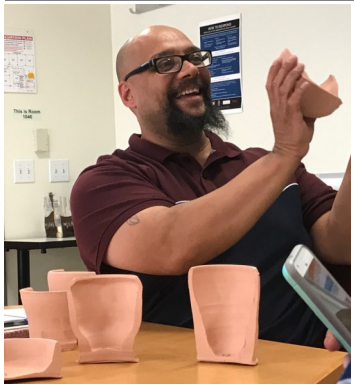
Based on the results of data analysis, performed by the Research Analyst of the HWC Assessment Committee, Fernando Miranda-Mendoza, approximately 68% of student scores are between 46.15% and 74.83%. We also looked at the most common student misconceptions, which we defined as the incorrect answer with the highest percentage of students that selected it. If two or more incorrect answers were selected with equal highest frequencies, then all were classified as misconceptions.

Some of the most common misconceptions included the following:

- Water molecules are attracted to each other through polar covalent bond.
- In the process of cellular respiration, glucose is digested into smaller molecules, leading to the breakdown of ATP.
- Mutations that arise in any body cell (somatic mutations) and lead to cancer in an individual can be inherited by an individual's children.
- Genetic information provides instructions to rearrange genes into traits.

Prior to the start of the Fall 2018 semester, the Biology Assessment Committee met to look at the preliminary results of the pilot survey from the previous semester. During the meeting, we reviewed the questions that were most frequently answered to see if it was due to a lack of understanding of the concept or just a problem with the wording of the particular question. As of our discussion, we revised many questions of the survey and decided to administer it as a pre- and post-test assessment this semester.

During the first week of classes, an email was sent to all instructors (full-time and part-time) of Biology 121, asking their help in participating in the pre-test assessment. As a result, the pre-test survey assessment was administered in all 10 sections (9 face-to-face and 1 hybrid) of Biology 121 during the first week of classes. This is the first time our department had such a big participation in assessment. A total of 260 students participated in the pre-test assessment. Currently, the results of this pre-test assessment are being reviewed; they will be shared soon with our department assessment committee. Our goal is to administer this assessment as a post-test at the end of this semester in all 10 sections of Biology 121.



Unit assessment in Art & Architecture: Assessing Pottery

Paul Wandless

The Beginning Ceramics course (Art 196) is an introduction to the foundational skills, processes and techniques of working with clay. The course covers basic handbuilding processes, throwing techniques on a pottery wheel, underglaze/slip use on greenware, and glazing techniques for bisqueware. Proper use and understanding of materials, tools and equipment are part of the foundation-level experience in all beginning ceramics classes.

The skill that made the most sense as the focus of a pilot assessment was creating a vessel on the potter's wheel. This basic skill is introduced in Art 196 Beginning Ceramics, then reinforced in Art 197 Intermediate Ceramics. A thrown vessel can easily be measured with a rubric, making it a perfect candidate for assessing. It has definitive steps from start to finish, and all of them must be done properly to create a successful vessel whose measurements fall within defined parameters.

During week 15 of the semester, students will have 1 class period (2hr, 50 min) to throw a cylinder on the potter's wheel, trying to achieve the parameters below. Each student will throw two cylinders and hand in the one they feel is their best effort. Wedged balls of clay, weighing 2 Lb each, will be supplied to students for the assessment to use in making the cylinder.

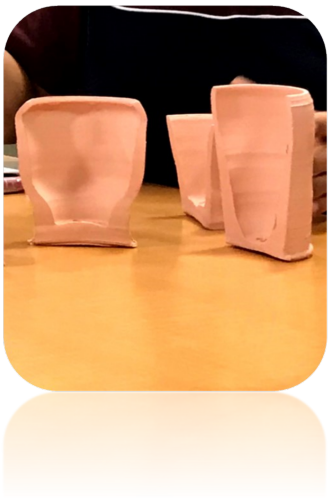
Cylinder measurements / parameters:

Height	6 inch (minimum)
Width	4 inch (minimum)
Wall Thickness	1/4" on top and can taper out to 3/8" at bottom.
Bottom Thickness	1/4" - 3/8" (can fall in this range)
Base	45 degree bevel
Rim	Compressed and level

All the cylinders made by the students will be cut in half and numbered. A rubric will then be used to see how well the parameters for the different parts of the cylinder were met or were not met (see the table below).

Throwing a cylinder is a challenging skill to learn and takes practice and patience to make improvements in skill level. With only having four weeks to learn the skill in a beginning class, the results are expected to vary greatly. Most students in Art 196 will fall in the "room for growth" and "met the outcome" dimensions of the rubric. The expectation is that in Art 197, their throwing improves to the point where they can consistently meet or exceed the parameters of the rubric.

Rubric	4 Exceeded	3 Met	2 Room For Growth	1 Not Met
Height	over 6" height	6" in height	4" up to 6" height	less than 4" height
Width	over 4" width	4" width	3" up to 4" width	less than 3" width
Walls	less than 1/4" in width on top less than 3/8" at bottom	1/4" width on top 3/8" at bottom	1/4" up to 3/8 width on top 3/8" up to 1/2" at bottom	more than 3/8" width on top more than 1/2" at bottom
Bottom	less than 1/4" in thickness	between 1/4" - 3/8" thickness	between 3/8" - 1/2" thickness	more than 1/2" thickness
	4 Met	3 Proficient	2 Room For Growth	1 Not Met
Base	40 - 50 degree bevel	30 or 60 degree range bevel	10 or 80 degree range bevel	Did not bevel
Rim	Compressed and level	Compressed and slightly uneven	Not full compressed and uneven	Mot compressed and uneven.
Craftsmanship	Inside/outside surfaces are smooth, no slurry present, cleanly cut bevel	One of the surfaces are smooth, marginal slurry present, uneven cut bevel	Neither surfaces are smooth, slurry present, jagged cut bevel	All surfaces are rough, or textured, lots of slurry present, jagged or uncut bevel



Unit assessment in Business/ CIS

Bral Spight

Time flies when you are having fun! This fall, the Business department focused its activities on two main assessments in support of documentation required for accreditation. The first activity is to continue analyzing business department student abilities prior to and after entering business department pathways. The second activity is the full rollout of a student self-assessment of learning in both online and face-to-face formats. The goal in both cases was to show efficacy of current practices and/or highlight opportunities for change based on student responses.

The assessment of student ability to demonstrate basic understanding of core business concepts utilizes a thirty-question survey given in two separate phases to three classes typically taken earlier in a business student's pathway and then to three classes typically taken later along a business student's pathway. The Business Department's goals are to better understand the ability of students to demonstrate fundamental knowledge of business concepts and to perform elementary business calculations prior to entering a department pathway of study. The department also hopes to show subsequent improvement over time for the same learning objectives prior to transferring or graduating from a departmental pathway.

This effort over the last four semesters has shown a general indication that students do tend to show improvement over time (whew!). The ongoing challenge with the effort continues to be strengthening the p-values associated with our conclusions and maintaining a high level of student participation as we migrate from administering the assessment directly to students on Blackboard to utilizing survey monkey tools linked to the LMS environment by the class lecturers. As always, in addition to assessing the overall difference in performance, we will continue to look at assessing the validity of the questions and the assessment on the whole. We are also engaged in critiquing the messaging, procedures and policies around administering the assessment and ensuring a continued high participation rate.

The self-assessment of student learning is an indirect measure designed to assess students' perceptions of their learning in online vs. face-to-face formats, and it builds off the general effort to understand how to improve the online learning environment for students at Harold Washington College. The goal of the effort is to learn about how students are perceiving their learning in their online and face-to-face experiences and to determine what issues need to be addressed or opportunities seized.

A simple 15-question survey assessment will be sent around in the 14th week of the semester to students in select business classes where there are good enrollment levels in both online and face-to-face formats. The first 14 questions will probe for potential causes of a relatively good or poor experience followed by a final open ended question to allow for unexpected issues and or opportunities to be surfaced. The results will then be used to determine if students are finding the online environment or face-to-face classes more conducive to their learning and why across multiple dimensions of the learning process. The learnings from this assessment will then be rolled up and compared with the broader Harold Washington College effort to assess student perceptions of online learning relative to face-to-face learning.

Both assessments will only be used in aggregate to develop conclusions and recommendations. The business department has benefitted from these types of self-examinations and encourages other departments not currently engaging in active assessment to do so!

Unit assessment in English, Speech, and Theater

Amy Rosenquist

Oscar Wilde could have been describing the Fall 2018 English, Speech,& Theater unit level assessment in his infamous addition to the already-famous quote: "Imitation is the sincerest form of flattery that mediocrity can pay to greatness." Impressed and intrigued by the Student Perceptions of Online Learning assessment and Jeni Meresman's Student Wisdom Project, I designed a survey for English 102 students who remained enrolled and finished the semester to measure their perceptions about what helped them persist in the course. A pilot was administered in the spring, after which the survey and structure of when to administer it were revised; this fall, I am hoping to engage as many face to face, hybrid, and online English 102 instructors as possible to share the survey with students who are still attending after the drop date. The hope is that as a department, we will gain insight into the internal and external factors that help students continue through the semester in what can be a challenging addition to the college freshman year.

Preliminary results from the pilot are limited, as few instructors participated. From the approximately 50 responses, it was clear that communication and support from the instructor and the assistance of embedded tutors and/or the writing lab were vital components of retention for the students who took the survey. Students cited those two factors overwhelmingly, with some also mentioning supportive interactions with the Wellness Center, advising, and the administration as being important to their success or persistence. Internal factors that students cited as important to their success included time management and prioritizing academic work/homework over other activities.

In a sense, these pieces can be said to represent the ideal student in the ideal classroom, with others who perhaps dropped or received an ADW having had a very different experience in that same classroom. Following the administration of the survey to hopefully all sections of English 102 in a few weeks, we may see a wider variety of results. Meanwhile, I have been reminded of the great importance of a positive instructor-student relationship, and that most students do, in fact, respond to this paradigm as much as to the course content itself. It's too early to officially close the loop, since the actual full-scale assessment hasn't been administered yet, but I find myself already more conscious of my presentation, and more intentionally reaching out to students who may be at risk. Hopefully, conversations among faculty teaching these courses will expand and allow for additional reflection of how to best support student learning and persistence

I'm also reminded by this pilot that it takes a village. In addition to writing lab and embedded tutors (shout out to those talented, sometimes life-saving, tutors living the HW mission!), advisors, librarians, administrators, class and campus peers, counselors at the Wellness Center and off campus, and family/friends were also mentioned as vital to student retention. The comment boxes on the pilot were bursting with anecdotes, across the spectrum from thanking tutors to expressing relief at having overcome challenges to gratitude about having acquired news source literacy (yes, that was actually a comment!), to the less positive but equally honest. I am eagerly awaiting both the aggregate results and the optional comments of the full assessment.

Unit assessment in Humanities & Music

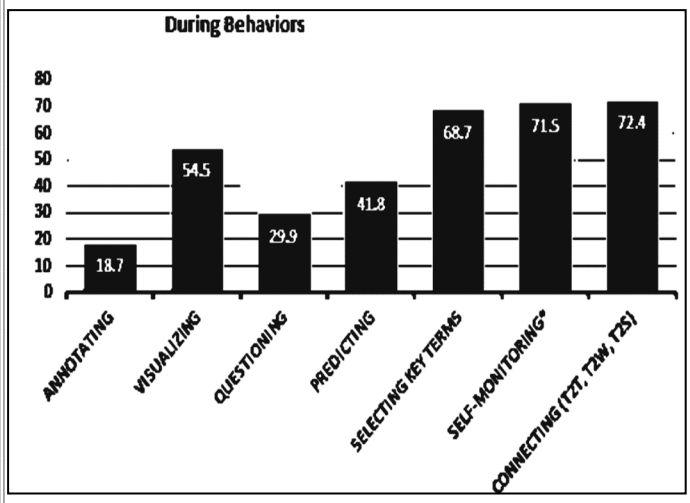
Assessment as Ouroboros: 'Every New Beginning Comes from Some Other Beginning's End'

David Richardson

The Ouroboros is an image of a snake eating its own tail, an ancient symbol appearing in works of Egyptian iconography and, later, a symbol associated with alchemy and the famous "philosopher's stone." Though, admittedly, assessment can on occasion feel a the way a dog must feel upon realizing that it has just spent a fair amount of time and energy chasing its own tail, the symbol is not just a representation of futility. The Ouroboros also represents an important aspect of assessment, namely a cyclical, natural cycle—a return to the start, a new beginning, and the long sought 'gold' of a closed loop.

Assessment in the Humanities department for both philosophy and music has featured a return to the start this semester and a consideration of what has come before and what will come next. In philosophy, the faculty members (at least those not on sabbatical—looking at you Kamran) received and began review of the data analysis and findings from last year's Critical Reading Assessment and survey of student beliefs about reading and learning, with an eye toward clarification of what they mean and discussion of what we might do in response. The timing was quite good for this project given that we hired five new adjuncts and welcomed back another who had been off pursuing a Ph.D. for the last three years.

One example of a provocative finding likely to lead to some sort of action is in this chart, showing the percentage of students who reported engaging in the following behaviors while reading the philosophical text used in the assessment (see the graph below).

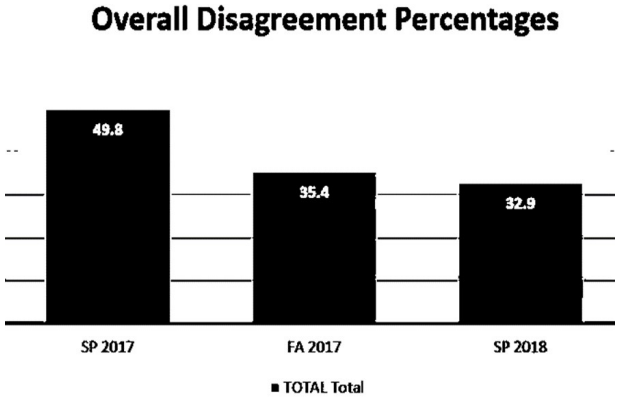


Particularly striking is the very low percentages of students who annotated and questioned while reading the text, despite being encouraged in the instructions to write on the exam! Given what we know about the benefits of writing and questioning while reading, changing student behavior in this regard has significant potential for changing student learning in a positive direction.

Another finding that may yield fruitful action is connected to two questions on the critical reading portion of the assessment. In one question, we asked whether the author's argument was valid, and 15.7% of the students answered it correctly. In another question, we asked whether the conclusion of the author's argument must be true if the premises are all true, which is the exact definition of the term "valid" in the technical sense as that term is used in a philosophical context; and 41% of the students answered that question correctly, suggesting that students, even many who had spent the better part of a semester studying the concept of validity in their Logic class, were reading the term "valid" in terms of its colloquial use in everyday language rather than in the technical sense and failing to transfer their understanding of the concept as they learned it in logic (and other philosophy classes) to this particular task. Given the frequent use of the term in philosophical texts, and the prominent place of the concept in the learning outcomes across our philosophy courses, the data points out that this is an important challenge for us to take up in the semesters to come.

On the music side of things, we have been making steady progress in verifying student abilities to successfully demonstrate the intended learning outcomes across all four levels of a set of courses that are integral to our two music degrees. The process we have developed for collecting data from student performance juries has made clear that the students' instructors and outside jurors are consistently in agreement that the outcomes are being met. The attention to process and thoughtful leadership of our Music Coordinator, Adriana Tápanes-Inojosa, have led to demonstrable ancillary benefits as well, including improvements in student and instructor awareness of requirements and consistent compliance by instructors with department standards in planning and executing the juries.

During the jury performance, the students' instructors and second jurists rate the outcomes as demonstrated (or not), and then assess the students' progress as a musician in three categories—musicality, technique, and professionalism. Over the past few semesters, judges have shown increasingly consistent judgment in rating the student performances (see the graph below); however, there is still room for improvement.



This semester we selected "Professionalism" as our focus, figuring that of the three categories, it seemed likely to be the easiest to clarify across all the various instruments, including voices. Hopefully in doing so, we'll be able to lay some groundwork that will help with clarification of the others and even further improvements in the consistency of our music instructors' expectations for students and their ratings and evaluations of students' performances and progress, all of which should translate directly into more consistent and effective instruction in a foundational area of our Music degrees.

To accomplish this goal, we started with a survey of instructors, asking for some word association to get at their conception of "Beginning" Professionalism versus "Developing" and "Proficient" and "Accomplished." With the survey, we will be able to gather some preliminary information about how instructors are thinking about and, presumably, teaching and evaluating the category, as well as gather a sense of the ways they are conceiving of the developmental arc that students travel through as they complete this set of classes across four semesters. This information, coming in now, will be a first step toward collaborative clarification of programmatic expectations, which is the beginning and the end of all assessment activity, the Ouroboros actualized.

Unit assessment in the Library

Todd Heldt

Library assessment is ongoing. Here is the fall 2018 update on the HWC library's assessment activities:

Boolean Operators

To assess student learning of Boolean operators, we administered a pen and a paper assessment in each of our English 102 one-shot instruction sessions. We proposed a research scenario, suggested appropriate keywords, and asked that students circle the correct/optimal Boolean operators to connect each search term.

We met to norm our criteria, developed a rubric, and then began scoring the measures. Students are scored on a scale that ranges from complete understanding to partial understanding to no evidence of understanding each operator. We input student scores into a spreadsheet on Google Drive that automatically tallies average scores for each outcome.

After using the tool for a month, we met to discuss the scores and noted that student performance on the AND operator lagged the other two. After reviewing the student worksheets, we found that students had difficulty completing the measure as designed. On the worksheet, there are five opportunities for students to choose the appropriate Boolean operator in the course of completing a search strategy, but students often left two of them blank because of their placement on the page. This oversight significantly lowered student scores overall, but especially on their use of the operator AND.

We created a new design to make explicitly clear that students should attempt to find the correct Boolean operator in each of five clearly emboldened sets of brackets. We also decided to verbally inform students of the specific guidelines instead of simply depending on them to read the instructions. Thus far the scores have improved quite a bit. The Research Analyst informed us that we can safely discard the incompletely answered measures and keep the completely answered ones without jeopardizing the integrity of the data.

Keywords Assessment

We planned to use the keywords assessment in all Speech 101 classes. Unfortunately, after a few trial runs, we realized that this particular course might not be the best place to spend extra time teaching students to develop keywords. The research tasks students are assigned in those classes rarely require that students triangulate terms or concept map additional terms. The research tasks tend to reflect a more straightforward need, so student searches tend to have fewer variables. Considering the inherent differences in discourse between speeches and papers, this discovery makes sense. We will work together to determine a more suitable course in which to assess this skill set.

Our experiences show the importance of planning assessments carefully. At the outset of the process be sure to carefully consider the clarity of the assessment tool as well as the practicalities of administering it in different scenarios.

Unit Assessment in Math:

The Latest and Greatest in Math Assessment!

Camelia Salajean

The Mathematics department has been assessing one of the Math 118 (General Education Mathematics) common Student Learning Outcomes (SLOs): "Interpret and draw inferences from mathematical models such as formulas, graphs, tables, and schematics" since Spring 2017. During all this time we have discussed findings, analyzed the results, revised the assessment tool and thought about useful ways of closing the loop and writing recommendations.

We started in Spring 2017 by creating a pilot assessment consisting of three mathematical problems designed to assess how students get the information and draw inferences from a formula, a table and a graph. We strived to limit the number of words of the contextual problems to make sure the tool would assess students on math, rather than on reading comprehension of the text. In Fall 2017, we decided to expand the pilot tool into two parts: a pre-test and a post-test and continued to administer these tests in the semesters since then. The pre-test and post-test have exactly the same questions but in a different order, only to give the impression of a "new" survey. We didn't want students to immediately realize that they were solving the same problems twice in a semester.

Math faculty members have been working closely to improve Math 118 assessment during the last four semesters by slightly modifying the questions on the survey from one semester to the next to ensure that they properly measure the targeted SLO. In Fall 2017, we modified the formula question to verify it was not privileging students who already knew about associated content. In Spring 2018, we kept the same text, but we changed the graphs since students had difficulty addressing the graph interpretation question. (The pre-test of Fall 2017 had only 35.62% of students answering this question correctly compared to 44.16% in the pilot.) We wanted to understand if it was the type of question or the specific example used that was the source of the erroneous results. The percentage of the correct answers has increased over the past 3 semesters (from 33.83% in Fall 2017, to 44.30% in Spring 2018 and then 50% in Fall 2018 Pre-Tests), but still more than half the students are struggling with interpreting information from the graph.

Students also have difficulties with deducing a percentage from a data table (instead of computing 50% of 66 people, which amounts to 33 people, students selected the percent itself, 50, as an answer for the number of people). Therefore, in the Fall 2018 assessment, we added the percentage symbol next to the numbers in the table to underline the mathematical concept and help identify if students are struggling with the percent concept or with the way the information is provided. In this situation, the data were presented in a table. The results for the Fall 2018 pre-test regarding this question have improved (36.54% of students got the correct answer compared to 10.53% in Fall 2018 Pre-Test and 1.90% in Spring 2018 Pre-Test). Even though this is encouraging, since many more students answered the question correctly this semester, it is still a concern that the majority (55.6% of students) still answered 50 instead of 33.

For the past three semesters, student performances were similar. We

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were hoping they would do better in the post-test as compared to the pre-test; however, that did not materialize. Students' results were neither better nor worse. No statistically significant difference was detected between the two tests results. It is clear to us at this point that students struggle particularly with drawing information from reading graphs and the concept of inferring percentages from quantities presented in a table, which is a fact that other stakeholders should be aware of as well. We recommend that more focus should be paid to these two topics across the curriculum in the Mathematics Department as well as the rest of the college, since it relates to one of our GenEd outcomes in Quantitative Reasoning.

During the Math 118 assessment process, half of the full time faculty of HWC Mathematics Department have worked together and successfully collaborated towards the same goal. We were able to get most part-time instructors teaching this course as well as online instructors from other colleges involved in this process. It is encouraging that the number of responses gathered for the Math 118 assessment was substantial in number, beyond what was expected. As part of our efforts to make use of the results and close the loop for this assessment, we are planning to develop a shell on BrightSpace for Math 118 –General Education Mathematics course. This shell will contain the master syllabus, a variety of activities, and assessments for Math 118 that any instructor teaching the course could choose to utilize in the near future in order to give students more opportunities to work toward achieving the outcome.

Unit assessment in physical science

Allan Wilson

About a year ago, I was going through some old boxes, and I found some of my old school papers. I started flipping through old tests and essays (it was a little humbling to be reminded that I didn't always follow the diligent study practices that I try to encourage in my students!), but one test really caught my attention. It was in analytical chemistry, and I actually got a good grade – in fact, underneath a circuit diagram I drew in answer to one of the test questions, the professor wrote that bland professorial compliment – "good job!" But what struck me was that I had no recollection of ever learning circuit diagrams. It was my handwriting on the test, but not only had I forgotten this material in the intervening years, I had even forgotten that I ever knew it! Like the memory wipes you see in science fiction movies, time had excised all trace of this concept from my memory.

I've thought about this test often while coordinating our department's assessment initiatives this semester. Last year, we shifted away from the use of standardized end-of-semester exams to assess student learning, and tried a shorter, home-grown assessment that we hoped would give us more insight into student learning for one important topic. For CHEM 121 (Basic Chemistry) and 201 (General Chemistry I), we chose the topic of stoichiometry – using a balanced chemical equation to calculate amounts of reactants needed or products created. This is a key topic in those classes that also finds extensive use in later courses. The results gave us a sobering glimpse into some of the confusions students face when asked to apply stoichiometric calculations to real-world situations, so this semester we are expanding the program to the later courses in the sequence.

The key topic in CHEM 203 (General Chemistry II) that we have chosen to assess is acid-base chemistry. Like stoichiometry in 201, this is a key topic in 203 that also is used heavily in organic chemistry. In organic chemistry, the concept we have chosen to assess is mechanisms. Unlike acid-base chemistry or stoichiometry, mechanisms are not a discreet chapter in an organic chemistry course. Rather, they are a set of principles that chemists use to explain or predict how the reactants turn into products in a reaction. Mechanisms appear in almost every chapter in both semesters of organic chemistry, so they were an obvious choice for assessment. Our current plan is to use the same assessment in both Organic I and Organic II (CHEM 205 and 207), so we have included both basic knowledge-level questions, a straightforward mechanism they have will have encountered in CHEM 205, and a complicated final question which requires combining several mechanistic concepts.

We are also planning on giving the 201 assessment (stoichiometry) in our 203 classes, and the 203 assessment (acid-base chemistry) in our organic classes. This gives us the opportunity to compare student mastery in a topic over multiple semesters. Will we find that students are, as we hope, refining and deepening their knowledge of these important topics? Or do they just stare at these questions in blank incomprehension, the same way I now stare at a circuit diagram? Stay tuned for the answer! (Assuming, of course, that I haven't forgotten to *give you that answer by next semester!)*

Unit assessment in Social & Applied Sciences

Domenico Ferri

At the conclusion of the spring 2018 semester, 74 students completed a pilot run of the Social and Applied Sciences Civic Engagement assessment tool. 84% of these respondents agreed that civic engagement occupied a significant portion of their learning experience within the Social and Applied Sciences Department (SASD). 61% felt that their SASD coursework inspires them to contribute to an organization's efforts to enhance living conditions in a local community. 55% declared that they have the power and ability to influence and improve living conditions within their own communities. Last but not least, among the students surveyed, 54% *did not feel that popular depictions of their racial and ethnic identity are accurate.*

While these results are encouraging in the sense that they more or less confirm a significant extent to which civic engagement is a clear and present part of SASD curriculum, the continuation of this project extends from both careful consideration of the pilot tool's fascinating responses and a determination to involve more effective assessment practices in the construction of the expanded sequel. Simply put, along with the results noted above, additional student responses entered under the "please explain" fields inspired two new department-level student learning outcomes (added to the original three), six new questions to assess them, and the overall enhancement of those original questions utilized in the pilot. All told, the result is expected to be a better tool that includes more direct assessment, clearer questions, and what I anticipate to be more revealing and detailed results that can enable us to close the loop more effectively down the line. Moving forward, the overhauling of the pilot tool proceeded in three distinct phases. First, a burning question came to mind as I perused student reactions across the pilot tool and discerned that

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their extrapolations of the term "civic engagement" seemed, at times, vague: Can they define civic engagement? Out of this inquiry, a simple but essential learning outcome emerged - *Define and Interpret Civic Engagement – inspiring three corresponding inquiries set up as Likert-scale statements:*

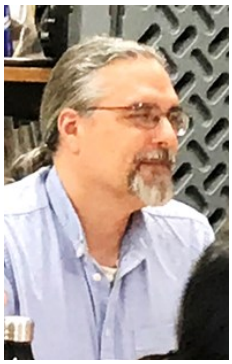
1. At Harold Washington College, my Social and Applied Sciences coursework has exposed me to varieties of Civic Engagement.
2. As a result of exploring Civic Engagement, I feel confident that I can describe it in my own words to friends and family.
   a. How do you define it?
3. Civic engagement can mean "working to make a difference in the civic life of our communities and developing the combination of knowledge, skills, values and motivation to make that difference."

Second, student explanations of how their SASD coursework led them to direct civic engagement varied greatly. Anywhere from "volunteering at voting poll places" to "picking up trash around the neighborhood," I realized that in order to establish a more detailed catalog of student modes of civic engagement, a more precisely worded departmental learning outcome was required. As a result of this consideration, I've added a second new SLO: *Assess the Quality of Life within a Community and Devise Strategies for Improvement. The following true/false questions will be included to assess it:*

1. My Social and Applied Sciences courses have revealed how resources and opportunities for advancement can vary dramatically from one community to the next.
   a. Please provide an example.
2. My Social and Applied Sciences have proposed specific methods for effecting change in a given community.
   a. Please provide an example.
3. My Social and Applied Sciences courses have enabled me to improve the state of a community.
   a. Please provide an example.

Third, in addition to the aforementioned new SLOs and their corresponding questions, I've taken advice from trusted and extremely knowledgeable Assessment Committee members including Erica McCormick, Jennifer Asimow, and David Richardson. Collectively, their advice has led to a restructuring of the new tool into random order so as to minimize predictability. The new tool also sees the grouping of true and false questions in one section and those requiring a Likert scale response into another, separate section to discourage generic "rapid-fire" responses. Additionally, a question from the pilot tool, "Popular depictions of my racial and ethnic identity found in TV, movies, news, and social media are accurate" led to students offering critical comments of said depictions, but not always clarifying their own backgrounds. The new tool will ask students to designate how they identify so that responses can align with formally noted demographics. Lastly, a few more rounds of wordsmithing, proofreading, and general fine-tuning will ensure that the second phase of this project – in the form of an expanded and more effective assessment tool – can be deployed near the end of the fall 2018 semester. I remain very excited to see how all that's been done will reveal even more about the link between civic engagement and learning in the Social and Applied Sciences Department!

Unit assessment in World Languages and ELL



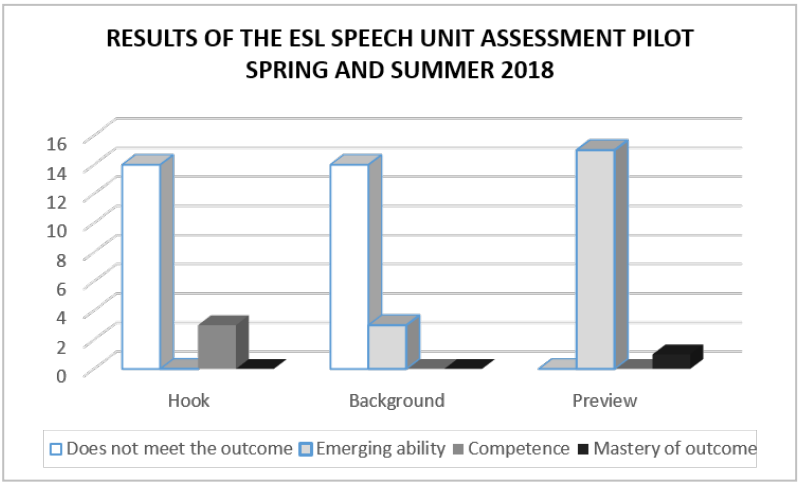
Matthew Williams

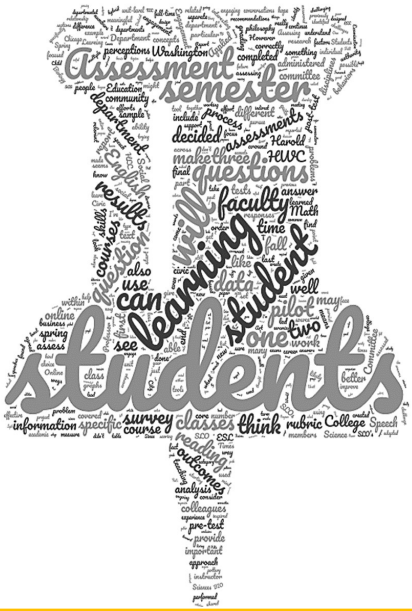
Background: Early in the spring of 2018, our department chose to focus our efforts on assessing the introductions of student speeches. All three ESL speech levels (one section for each level) planned to participate in the project, and students would be assessed according to the SLOs from the syllabus of the most advanced of the three levels of Speech (98. 99. 100).

We decided that the assessment task would be a speech given at the end of the term, which would be recorded on video by the instructor. The instructor would then review the video later and assess the introduction section of the student speech. Michal Eskayo provided a rubric for a full classroom speech, which I adapted to focus on assessment of an introduction only. This rubric focused on the hook, background and preview/thesis. The pilot was more limited in scope than what had originally been envisioned. Despite only being able to collect data from one of the three sections, I was able to confirm that the procedures for data collection worked well. I chose to store the recorded speeches of my class on Outlook 365 using the Email Groups feature so that all participating instructors could access the speeches in order to facilitate scoring. What limited data analysis I was able to compete indicated the completely expected result of students in the lowest ESL Speech level being unable to demonstrate competence regarding the hook and background parts of a speech introduction. Nevertheless, most of these students did display emerging ability doing a preview/thesis. These are skills that faculty expect to develop toward meeting the learning outcome as they move through the sequence of speech courses. I am working to do a norming session with the rubric to make sure we all understand how to use it and that we all use it in the same way. The assessment examined how well participants were able to do a speech introduction (Number of Students = 16 Level of Students = ESL Speech 98) - see the graph at the bottom.

In an effort to garner faculty support for the project, I am working to bring research and assessment of student learning into the department culture. I have requested that the department include a standing agenda item for unit assessment in monthly department meetings to keep stakeholders informed of assessment efforts, and to pique the interest and curiosity of faculty regarding focused investigation of student learning. I also plan to participate in the department's ongoing lecture series to share what we are doing with this and future assessment projects.

The plan is to conduct the full assessment in December using the procedures tested during the pilot. The data will be stored in the Outlook Email Group area within the 'ESL Speech Unit Assessment' group and will be analyzed by the end of the Fall 2018 semester.





HWC Assessment Committee General Info

Website: http://www.ccc.edu/hwcassessment/

Chair: Carrie Nepstad of the Social & Applied Sciences department at cnepstad@ccc.edu or 312-553-6095.

Membership: We are always looking for new faculty, students and staff to join in our exciting work. We meet every Wednesday from 3 p.m. to 4 p.m. in room 1046. All are welcome to join us. The Committee Charge states that there can only be two voting members from each department, but we are happy to involve as many people in our work as possible. If you want to discuss what this might involve or ask further questions, please contact our committee chair at the contact info shown below.

Assessment Times: We produce this publication each fall and spring. You can find an archive of older editions on our website.

Our Mascots: The question mark represents our asking of questions about student learning. The infinity symbol represents our continual cycle of assessment, including collecting data, analyzing the data, supporting evidence-based change, and then starting again by asking more questions.

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CITY COLLEGES of CHICAGO
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