

INTERSECTION

Summer 2017

Contents

<u><i>President's Letter</i></u> by Monica Stitt-Bergh	1
<u><i>Note from the Editor-in-Chief</i></u> by Jane Marie Souza.....	2
<u><i>Awareness and Strategy Necessary for Technology Success</i></u> by Joseph D. Levy	3
<u><i>Using Dashboard Technology to Close the Assessment Loop</i></u> by Sara Reinhardt, Catherine Sturm and Noelle Pease	7
<u><i>Creating an Assessment Tool: Starting with the Why</i></u> by Gloria Shenoy.....	13
<u><i>Collecting Outcomes Data using Pre-existing In-class Assessments and Resources</i></u> by John F. Dawson	18
<u><i>Using Google Apps to Manage Assessment</i></u> by Katherine Cermak and Shirley Lin	22
<u><i>Data Collection for Outcomes Assessment through the Learning Management System</i></u> by Karen DiGiacomo	29
<u><i>Technology and Assessment: A Focused Comparison of Three University Business Schools and their use of Technology in the Assessment Process</i></u> by Jennifer Flanagan, Mary Anne Doty, and Courtney Kernek	35
<u><i>Mapping the Curriculum: A Low-tech Model for Synthesizing Assessments and Improving Learning at Multiple Levels</i></u> by Jennifer M. Harrison & Vickie William.....	40
<u><i>Maximizing Existing Technologies for Cross-Disciplinary General Education Assessment</i></u> by Lisa M. Snyder and Kelly McVeigh Stanley.....	47
<u><i>An interview with Dr. Leah Matthews, Executive Director, Distance Education Accrediting Commission (DEAC)</i></u> Interview by Margareta Smith Knopik	51

President's Letter

By Monica Stitt-Bergh

Assessment of learning in higher education has many supporters—individuals and organizations. What sets AALHE apart is that we are the only national membership organization focused on the assessment of learning that is run by members. This publication—the *Intersection*, our educational webinars, *Emerging Dialogues*, online interest groups, *Conference Proceedings*, the website, our Twitter chats, the annual conference, and other AALHE activities all aimed at supporting our membership, are possible because of members and volunteers. A big thank you to our volunteers and members! You make AALHE possible.



MONICA STITT-BERGH IS PRESIDENT OF THE AALHE AND AN EDUCATIONAL PSYCHOLOGIST IN THE ASSESSMENT OFFICE, UNIVERSITY OF HAWAI'I AT MĀNOA. SHE CAN BE REACHED AT MSTITT-BERGH@AALHE.ORG

Members, assessment supporters, and sponsors showed up in force at our June 2017 conference. The 180 presenters and 330 attendees listened, talked, took “all-star” photos, shared meals together, laughed, and learned. They came from 47 U.S. states and territories, seven countries and all types of institutions. From skill-building sessions and plenary speeches to speed sharing, round table dialogues, and evening events, the conference provided an excellent learning and networking forum. We are already turning our eyes to Salt Lake City, Utah for the 8th AALHE conference in June 2018. Salt Lake City has outstanding examples of assessment—such as Salt Lake City Community College’s e-portfolio—as well as history, culture, and sightseeing. Join us for Assessment Week in Utah. I hope you submit a proposal; by sharing knowledge, critical reflections on practice, and research on assessment, we are more likely to succeed in helping students and demonstrating the value of assessment-for-improvement.

The AALHE Board of Directors left the annual conference inspired and brimming with exciting ideas tied to our mission and goals. We will continue to offer stellar professional development opportunities, create spaces for the open discussion of assessment issues and practices, and support the new and next generation of assessment practitioners. Plus, committees and task forces will focus on contributing to the research and literature on assessing student learning and on exploring collaborations and partnerships with other assessment-related organizations.

Please enjoy this issue of the *Intersection*. The technology theme left me thinking about my excitement over the years whenever new technology meant less time doing manual analysis, collection, and data entry/transcription. Advances in technology resulted in more time for me to work with faculty colleagues on making sense of results, answering equity questions, and taking steps to improve student learning. Thank you to the authors in this issue for describing and exploring technology and assessment practice.

Note from the Editor-in-Chief

By Jane Marie Souza

The call for papers for this SUMMER 2017 Edition of *Intersection* requested articles detailing how institutions successfully employed technological tools to assist in completing the student learning assessment cycle. The response was so outstanding that the editorial team decided to expand the normal length of the issue. This edition offers a wide array of stories from diverse educational settings including community colleges, universities, liberal arts colleges, a 100% online university, and a naval academy. Their assessment subjects range from general education to cellular biology. The topics address not only technology used, but strategies to employ when considering adopting any tool. The examples of technology utilized include home-grown solutions, *Google* apps, Microsoft Excel, and various proprietary software products. There is something for almost everyone in this collection.

This edition also presents the next in our series of *Conversations with Accreditors*. The executive director of the Distance Education Accrediting Commission (DEAC), Dr. Leah Matthews, is interviewed by Dr. Margareta Smith Knopik.

Sincere thanks to all our contributors. And to our readers, we would love to hear from you. Please feel free to send your comments and questions to intersection@aalhe.org.



*Jane Marie Souza, Associate
Provost at University of
Rochester, Intersection Editor-
in-Chief*

Intersection Editorial Board

Jane Marie Souza, Editor-in-Chief, University of Rochester
 David Eubanks, Furman University
 Jacob Amidon, Finger Lakes Community College
 George Klemic, Lewis University
 Gray Scott, Texas Woman's University
 Josephine Welsh, Missouri Southern State University

*[Intersection](#) is the quarterly publication of the
 Association for Assessment of Learning in Higher Education*

2901 Richmond Road, Suite 130-318, Lexington, KY, 40509 | 859-388-0855 | info@aalhe.org

This work is licensed under a

[Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License](#).

Awareness and Strategy Necessary for Technology Success

By Joseph D. Levy

Technology has a number of benefits for assessment work, such as making it easier to do more advanced analyses or reduce the amount of manual work or time dedicated to particular efforts (Maki, 2010; Suskie, 2009; Yousey-Elsener, Bentrin, Henning, 2015). However, “technology is a tool, not a strategy” (Bowen, 2017). It is important for institutions to be self-aware and have a strategy in place before considering the adopting of new technology. Technology can be a catalyst or lever, but like any tool, it is only as good as its appropriateness to the situation and as the user wielding it.

Consider the first of those premises: appropriateness to the situation. Suskie (2009) outlines a number of considerations for when an institution is contemplating adopting new technology. Chief among them is understanding institutional needs. An institution must understand what it is trying to accomplish, as well as what resources it is missing or would need in order to engage or advance those efforts. Put another way, if technology were a solution, what problem(s) would it be solving? Once the *what* is uncovered, the institution should consider if existing resources – not existing process or strategy – would suffice. Sometimes schools can become so focused on process or existing strategy, they fail to recognize existing tools used differently could meet requisite needs.

In addition to needs, an institution should have clear goals in mind for the work or effort. As Maki (2010) would promote with assessment in general, there should be a guiding framework or strategy to which potential technology might assist. If looking for assessment software, do you have expectations for amount or scope of work by areas (e.g., all departments measure at least two learning outcomes a year)? Are there particular problems to be addressed (e.g., too many surveys in general or too many overlapping efforts)? Without awareness of assessment culture, investment in technology may result in vague but expensive wishes for a product. Moreover, absent culture understanding or clear strategy, an institution may purchase the wrong technology. Given the number of products on the market, each with a slightly different focus or specialty, an uninformed shopper may consent and pay for bells and whistles on top of a core product (let alone the product itself) which may not be needed.

Keeping with the idea of needed strategy, consider early alert/student success tools. If a campus does not have a retention goal articulated or have interventions ready - for prescription and evaluation – such technology may not yield much in terms of change for the institution. It may indicate diverging points in a student experience, but without targets, interventions, or staff ready to interpret and act on this data, what good is the system? The system or technology is supposed to inform and aid the strategy or framework in place; if there is no strategy or framework for acting on the information, how might an institution be in a better position with the technology than without it?

A key to successful plan or strategy implementation is commitment to do the work. Yousey-Elsener, Bentrin, and Henning (2015) remind readers – while there is a growing responsibility of adopting and guiding use of technology – the primary focus of assessment professionals is to do good assessment work, regardless of technology or system utilized. Technology will not do the work on its own; users must interact with it, interpret the results, and take institutional action. As an example, curriculum or process mapping needs already to be in place if looking to leverage technology to align or visually represent data must interact with it, interpret the results, and take institutional action. As an example, curriculum or process mapping needs already to be in place if looking to leverage technology to align or visually represent data in such structures. Technology on its own automatically would not convey importance of such practice.

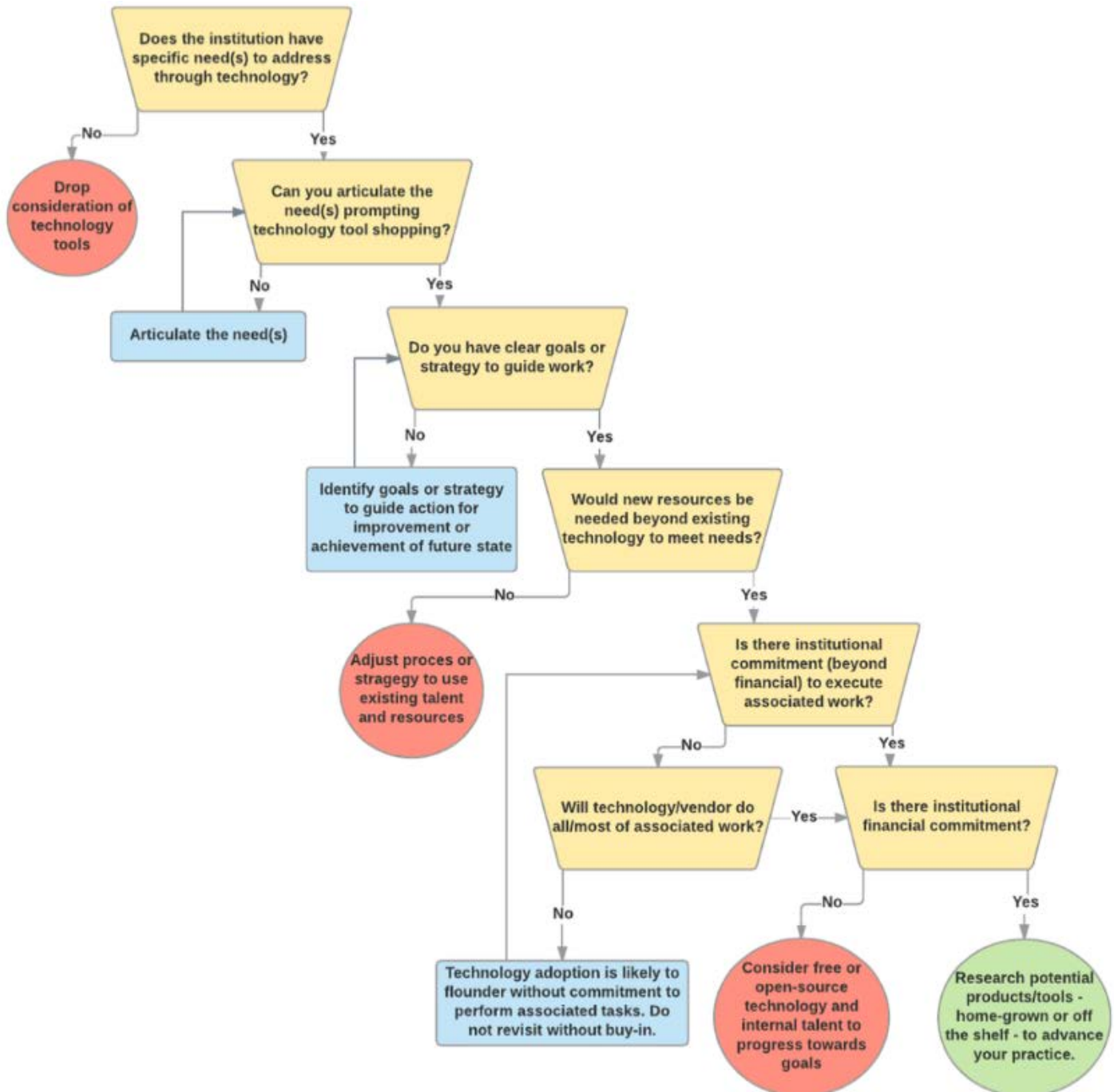
There needs to be internal communication and capacity building so people understand efforts are important and necessary at face value, not just tasks necessary to populate new technology or for some disconnected, externally imposed reason. Any of the aforementioned misconceptions typically translate to lack of value, meaning, and respect or attention given to a practice.

From a practical standpoint, it is important to be aware of institutional resource commitment. While it may be agreed assessment practice should advance and funding has been secured, the institution should next consider if there are appropriate staff and production time dedicated to execute the integration. It is important to consider if employees – faculty and staff users, as well as in-house information technology staff - can support adoption (Hollands, 2017; Suskie, 2009). Allocation of resources can demonstrate institutional commitment (Maki, 2010), while also sending a political message of priority. Consider if such messages would be congruent with institutional strategy and aligned with the overall needs.

Having worked for a technology vendor, as well as on multiple campuses looking to adopt new technology, I can suggest that all of the above are important and necessary precautions. Far too many institutions fail to consider their actual needs or strategy before adopting technology; they see a problem (poor assessment practice), hear of success stories associated with vendors, and assume purchasing technology will solve their problem. In such instances, this can result in a successful and timely adoption of technology, but then often schools fail to utilize or leverage the technology as a resource to aid work to be done. Other than technical trainings on how to access the technology, there can be no culture change to engage with data or be more intentionally data-informed in practice. Institutions could then blame the technology and look for a new, different solution without recognizing or addressing the core problem as behavioral and likely to persist regardless of the integrated technology. These encountered problems already assume the partnership does not fall apart during the contracting or integration phase, where much can go wrong or stall efforts. The problem may include lack of in-house technical development support or planning for adoption and/or failure to account for other technology priorities (transitioning LMS, upgrading student information systems, etc.).

In an effort to summarize main points discussed and key considerations in adopting technology tools for student success, please refer to Figure 1. This flow chart begins with yellow trapezoids containing questions whose decisions lead to process outcomes. Directional lines flow from the trapezoids based on answers to the posed questions. These lines lead to other yellow trapezoids, blue rectangles, or circles. The blue rectangles are prompts for action before one can revisit a trapezoid and move forward in the decision process. Red circles lead to prompts for action or descriptions for ending progress in the decision process. The lone green circle is the end point one should attain before investigating technology tools to support student success. This may prove a helpful visual representation and logical order for considerations. Know there are several other factors which may be appropriate to ask or respond to before selecting technology as a tool, but this chart was created to focus on the key considerations covered earlier in the article.

Figure 1. Flow chart with article's main points of consideration comprising decision questions.



There are some amazing technological systems and resources available to help ease or advance assessment practices. However, these are tools and not solutions in and of themselves. An institution needs to understand what it is doing; where it wants to be or what problems it needs to solve; have an existing strategy, framework, and expected behaviors or competencies in place; and be prepared to commit a variety of resources to achieving desired future state. These pieces are necessary whether or not considering technology, but essential if looking for a successful technology adoption and advancement of practice. Moreover, the more an institution has a clear idea its identity, where it wants to go, and what it is willing to do to get there, the more likely it is to truly maximize the resources and advantages provided with technology

References

- Bowen, Jose. (2017). *Assessment as strategy: You are what you measure*. Keynote session presented at Association for the annual conference for the Assessment of Learning in Higher Education, Louisville, KY.
- Hollands, Fiona. (2017, June 11). Education technology vendors in higher ed: Friends or foes? *EdSurge*. Retrieved from <https://www.edsurge.com/news/2017-06-11-education-technology-vendors-in-higher-ed-friends-or-foes>
- Maki, P. L. (2010). *Assessing for learning: Building a sustainable commitment across the institution* (2nd ed.). Stylus Publishing LLC: Sterling, VA.
- Suskie, L. (2009). *Assessing student learning: A common sense guide*. San Francisco: Jossey-Bass.
- Yousey-Elsener, K., Bentrim, E.M., & Henning, G.W. (2015). *Coordinating student affairs divisional assessment: A practical guide*. Stylus Publishing, LLC: Sterling, VA.

Joseph D. Levy, M.S., is the Executive Director of Assessment and Accreditation at National Louis University and can be reached at jlevy2@nl.edu

Using Dashboard Technology to Close the Assessment Loop

By Sara Reinhardt, Catherine Sturm and Noelle Pease

An essential component of the assessment process includes the sharing of data and results to make improvements continuously. However, when results are only shared annually or per semester, there can be barriers to implementing changes informed by assessment results (Kennedy, 2016). University Housing at the University of South Carolina developed dashboards using Microsoft Excel to combat this issue and to provide a more user-friendly, data sharing system. Dashboards provide a platform for residence hall directors and housing professionals to view data in relatively real time and adjust their strategies to better meet their goals. In addition to the user friendliness of dashboards, they are also relatively inexpensive. By using an existing program like Microsoft Excel, it is not necessary to purchase an expensive software program from an outside vendor. Dashboards allow the department to take advantage of existing technology and use it to its full capacity.

In this article, we will discuss how dashboards are used to provide real time data to facilitate continual improvements in Residence Life. We will also discuss their functionality and how they are used to communicate results to those with limited data proficiency or experience. Finally, we will discuss how they can be applied to impact other areas of higher education.

How Dashboards Work

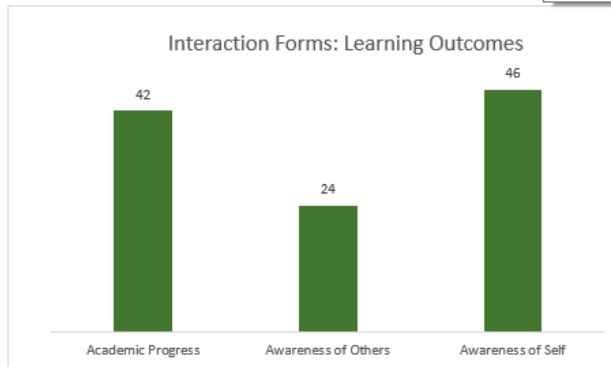
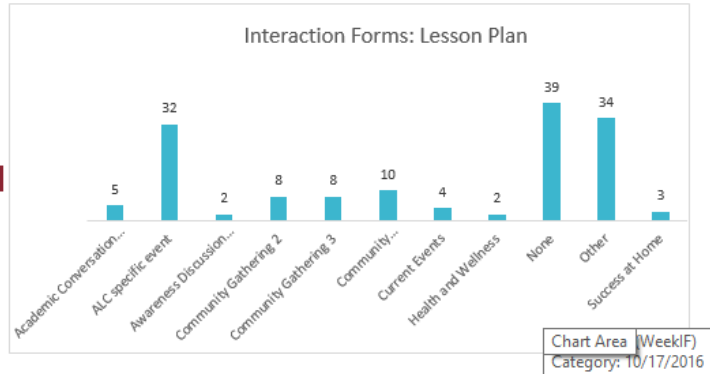
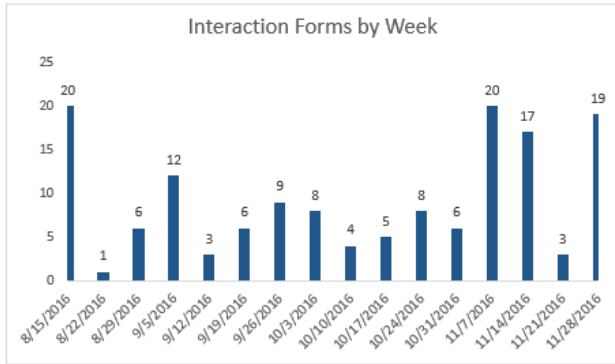
University Housing at the University of South Carolina collects data in a variety of ways. While resident student responses to surveys are necessary, understanding the residence hall environment and what is happening in terms of residence hall curriculum and programming is vital. To collect data on programming, University Housing collects data from each residence hall by having resident mentors submit an interaction form for each residence hall event they lead. These forms collect data on who leads the event(s), what type of event it is in terms of the residential curriculum, and which learning goals are taught at each event. Each residence hall also utilizes a card-swipe machine which collects and downloads resident student engagement data. Resident students who attend events swipe their student ID in the machine. The card-swipe machines collect various personal data points from the student ID such as name, sex, academic year, and in which residence hall the student resides. The collected data are sent to the Assessment Coordinator in an Excel file. From there, the data are compiled, cleaned, and linked using Microsoft Excel Power-Pivot. Information such as number of interactions per week, learning outcomes reached, and lesson plans taught are displayed in interactive ways. The figures below illustrate what data are represented in a dashboard. As you can -see, the dashboard is broken into two sections: interaction forms section and card swipes section. Figure A shows the interaction form section. The interaction form data displays the number of events by week, how many times each lesson plan has been taught, and how often each learning goal is targeted.

University Housing creates a sustainable living and learning community that promotes the academic and personal development of students

Housing with information regarding the interactions taking place within their halls. Information shown in this report is collected from card swipes and interaction forms. This interactive report can be used as a method of gauging success, identifying engagement, and predicting interests and needs.

Interaction Forms

The interaction form was crafted as a way for staff members to quantify the experiences and interactions that take place on a day to day basis in the halls. These forms are used to track the four different Residential Foundations Strategies: Educational Strategies, Learning Community Initiatives, Community Engagement, and Student Leadership Initiatives.



Residential Foundations Strategy

- (blank)
- Community Engagement

Associated Lear...

- Preston Residential C...

Residential Foundations St...

- Community Engagement
- Educational Strategies

Lesson Plan

- Academic Conversation Series

Figure A. Interaction Form Section

Figure B illustrates the data represented in the card swipe section. Included in this section is demographic information about attendees including sex, academic year, major, and building of residence. The data also displays the top five most attended events, and the percent of the building population that has attended at least one resident hall sponsored event. This interactive tool simply provides residence life staff a real-time snapshot of who is and is not engaging in events so they can increase their programming efforts within their respective residence halls.



Figure B. Card Swipe Section

The use of slicers allows residence life staff to sort their data in a variety of ways (i.e., by event, lesson plan, and residential foundation strategy). Figure C shows a dashboard and Figure D shows that same dashboard but sliced by an event.

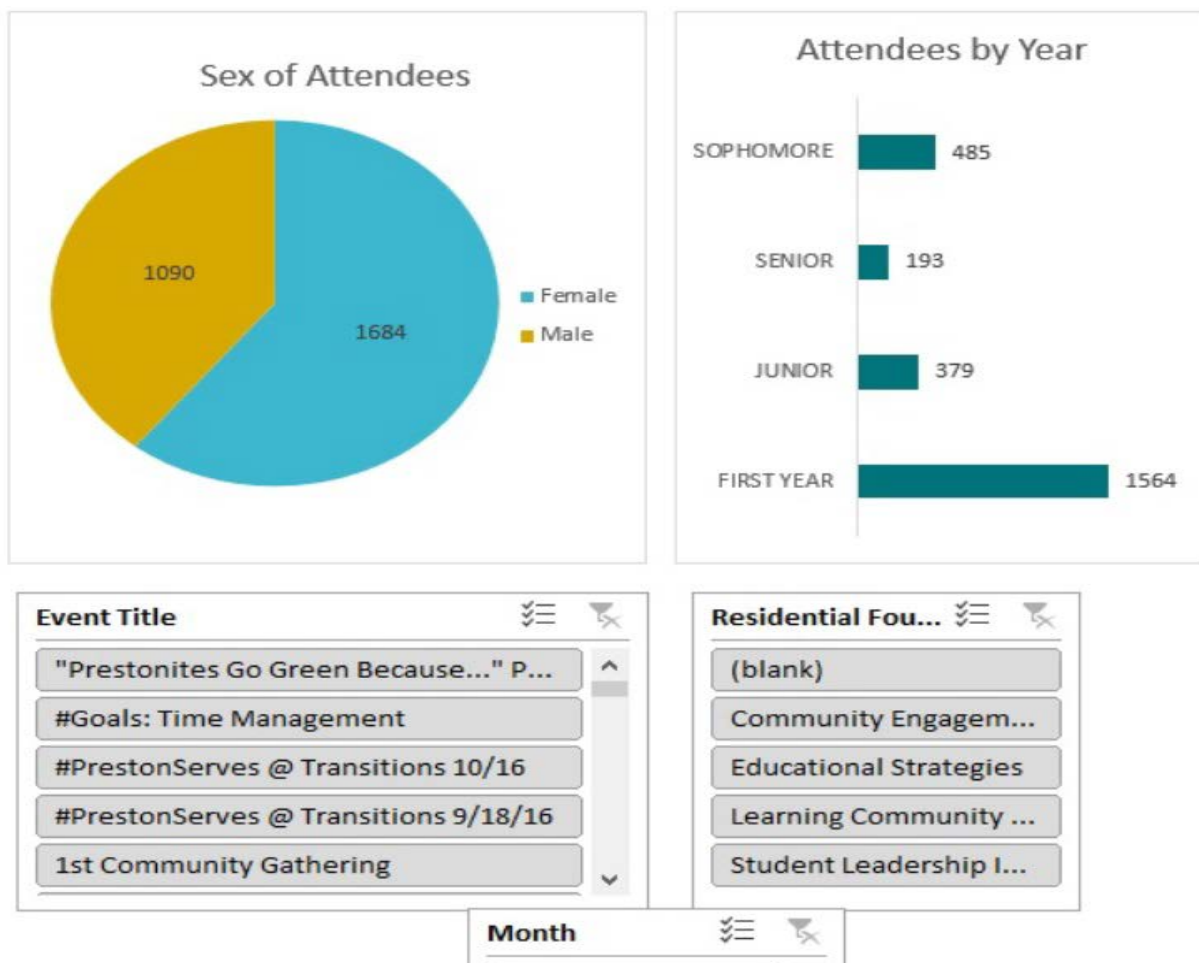


Figure C. Dashboard

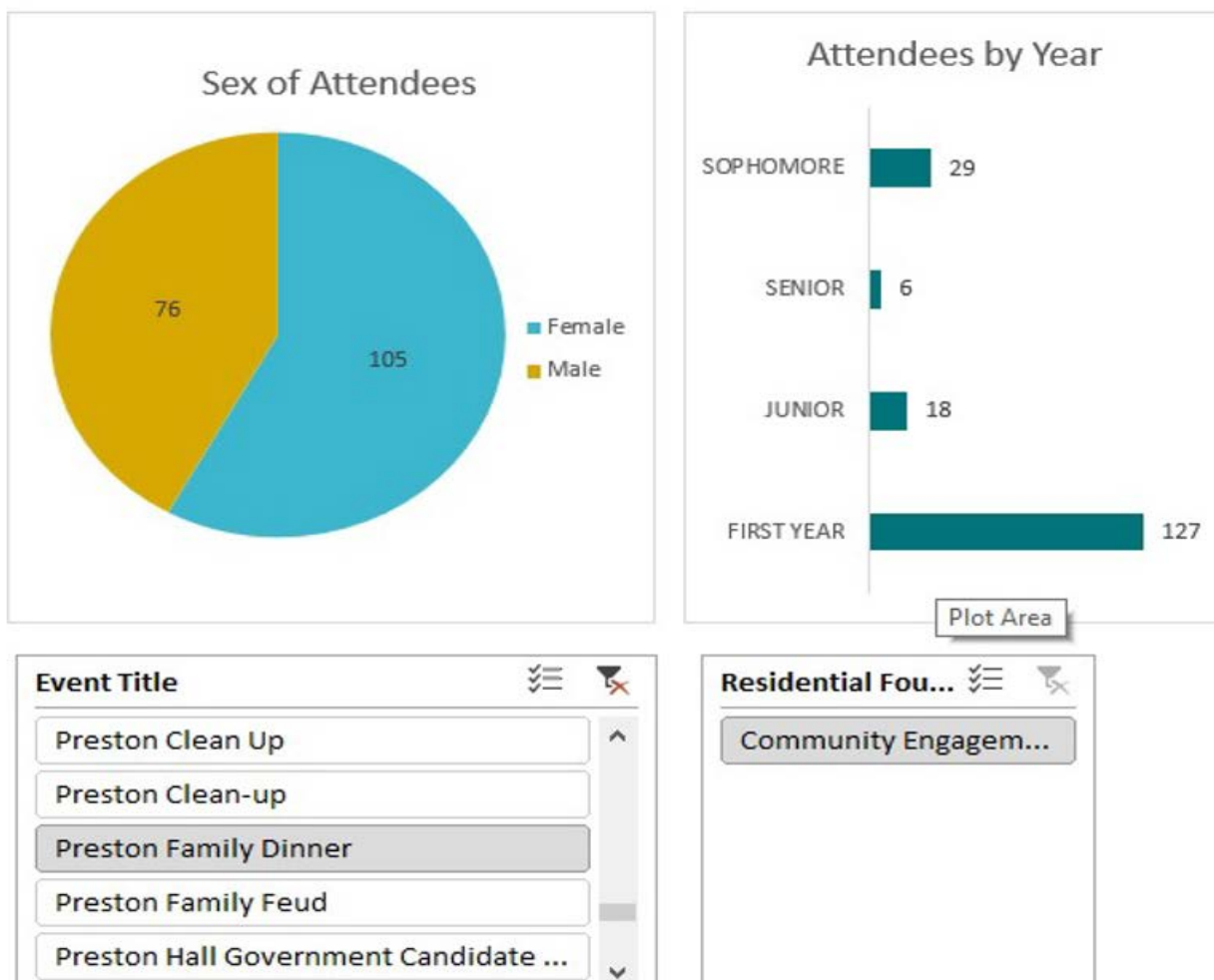


Figure D. Dashboard Sliced by Event

Slicers allow residence life staff members the ability to understand exactly who attended each event and which residential foundation strategy coincides with the event. Dashboards are housed on University Housing's network drive and are only available for those with permission to access that drive.

Dashboards show copious quantities of data in an interactive and comprehensible way. They allow those who are not as familiar or comfortable with assessment the ability to understand the environment of their residence halls.

Dashboards in University Housing

Specifically, in University Housing, dashboards are useful for tracking student engagement throughout residential curriculum events. Using dashboards as part of the assessment process can help create buy-in from residence life professionals and hall directors. Dashboards provide graphical and visually interactive data that reflect each specific residence hall community. Housing professional staff can use this information to guide their practice and become more invested in the assessment process if it allows them to better meet student learning goals and impact outcomes. Additionally, the use of dashboards may integrate assessment into a consistent component of the day-to-day work for residence life professionals and contribute by promoting a culture of assessment within the department. If a residence life staff member notices a specific population of students attending events, he or she can tailor events to meet the needs of that population. For example, University Housing at the University of South Carolina houses mostly first-year students; however, when one residence life staff member noticed more upperclassmen attending events, he was able to tailor events to meet their needs.

Applying Dashboard to Other Areas

While dashboards are used in Housing in this example, they can be applied to many different areas of higher education. As long there is a source of continuous data, dashboards can be used to impact decision making and improve programming. Dashboards are useful for sharing data to internal audiences in a format that is both informal and interactive. While a thorough executive summary report will likely be shared at the end of the semester or academic year, dashboards can be used as checkpoints or progress points throughout the assessment cycle (Kennedy, 2016). Each department in higher education houses unique data, but by using dashboard technology, this data can be transposed into a visually interactive data warehouse and can be used to make improvements.

Dashboards are entirely customizable to any institution aiming to display data collected by departments. They offer a way to best highlight the progression towards goal completion throughout the year. While the mission and goals of housing departments at two different institutions may be vastly different, they may both still use dashboards as “pulse checks” throughout the year that are specific to each of their goals. Additionally, the dashboard may be rearranged and the data can easily be filtered or sliced by professionals who are viewing the dashboard to further their understanding of the data.

Closing the Loop

In order to close the assessment loop, it is imperative that the data received, reviewed, and analyzed from dashboards is communicated back to stakeholders who have the ability to make evidence-based decisions and adjustments to the residential curriculum. Kennedy (2016) stated, “Feedback from assessment data must be communicated several times during the academic year to front-line staff so they can use it to take corrective action if actual performance varies from planned activities” (p.195). Allowing data to be shelved for long periods of time after an analysis phase can potentially harm data and produce outdated information which can no longer be used to make effective improvements. Using dashboards are a simple but vital technique to draw attention to areas that require immediate attention and improvements which ultimately benefit our resident students’ learning experience while adjusting to living on campus.

References

Kennedy, K. (Ed.). (2016). *Making a difference: Improving residence life assessment practices*. Columbus, OH: Association of College & University Housing Officers – International.

Sara Reinhardt is the Assessment Coordinator for University Housing at the University of South Carolina

Dr. Catherine Sturm is the Director of Assessment for University Housing at the University of South Carolina

Noelle Pease is a graduate student in the Student Affairs Administration in Higher Education program at Texas A&M University.

Creating an Assessment Tool: Starting with the Why

By Gloria Shenoy

Often as consumers, we look at what is in the market without first assessing our needs. It is no different in the search for the ideal tool to manage assessment on college and university campuses. Looking for the perfect assessment tool for your campus urges you to ask questions about what, precisely, your institution wants from assessment data and reports. You want to think in particular about what you want from assessment reports while taking the unique needs and culture of your institution into consideration. Recently, our campus found itself faced with questions about how to find the best tool to encourage meaningful assessment (for us, helping programs use their collected data). What we learned from the process of selecting a tool for assessment is that it is a *tool* to help you achieve your goals; therefore, the process of selecting a tool must be driven by your institution's philosophy on why you do assessment.

We wanted a tool that would encourage programs to do meaningful assessment in keeping with our campus's philosophy of assessment—to collect data to answer questions, and then to use this information to drive changes for improvement and create an ongoing dialogue about assessment. After looking at external products, we decided to go in house to create a system that matched our assessment philosophy and needs. As an institution we had an online system for assessment in the early 2000s to 2010, but we had gone back to using a paper and email process after that online system was discontinued as it was no longer meeting the institution's needs and wants. If the tension of doing assessment is between accountability and improvement, we wanted to create systems that would encourage us to do assessment for improvement (Ewell, 2009).

With the focus on use, we sought an assessment tool that is intuitive to use so the focus is on the data entered, not on the system itself, and where data sharing between programs at the institution is a norm. Most of all, we wanted to promote a conversation around assessment reports. At the core of all these wants was a desire for our institution to do meaningful assessment in which the collected data inform decisions for improvement.

What we have today is a web-based tool that collects assessment information while stressing the use of the collected data for improvement. In addition, the assessment tool has a feature in which each report has an attached rubric used for evaluation by the Office of Assessment. In the report, there are questions that ask what the program is going to do with the collected information. It auto-saves, has a clean design, allows all users with a faculty credential login to review all reports, and has features including a heat map and rubric that encourage an ongoing conversation about assessment.

Specifically, our assessment tool collects learning outcomes, measures (what is the evidence that programs have for these outcomes and what are they aiming for), results, and plan (what programs want to do with the material now). Under each outcome we have two reflection questions to drive report writers to think about their outcomes and their data. (See screen shots of both of these below). The end of the report allows for programs to share what is being done at the program level for improvements and the upcoming plans. The design is fairly lean because we believe that fewer boxes will force individuals to think about what they were putting into the reports. We do allow for more information through a feature that permits individuals to attach supporting documentation if needed.

OUTCOME #3: Communication: Students will deliver an effective oral presentation on the impact of public policy.

#	Assessment Measure	Results	Plan
1	In the capstone course for the program, HDS1215, students complete a project. Part of the class incorporates community service where students must give a 15-minute presentation at a local school.	75% of students received positive feedback at their school presentations.	The feedback from the school presentations show that students are still having trouble communicating with lay audiences. We are forming an undergraduate committee to think about course progression. In addition, we are adding instruction on this type of communication.

(Screenshot of part of the report—the learning outcome is shown in an orange heading and three boxes below with information on the measures, results, and plan. While this is not a degree we offer at UT Dallas these examples reflect what academic programs enter in these reports).

SUMMARY OF OUTCOME #3

A) DISCUSSION OF RESULTS

Feedback from the local school presentations indicates that the students have trouble communicating effectively to lay audience; otherwise, we are meeting this learning outcome as a program based on the other collected measures. A third learning outcome has been added to HDS 1215 for spring 2016 to better address this learning outcome.

B) DISCUSSION OF MODIFICATIONS/RECOMMENDATIONS (CLOSING THE LOOP)

We will discuss the coherence of our concentrations in the program committee meeting. We are forming an undergraduate committee to think about course progression. In addition, we are adding instruction on this type of communication.

Executive Summary

Program Improvements

We created HDS 1214, a student mentoring and leadership course open to students interested in leadership and mentoring. We created this course in the catalog as first of its kind. It will be taught by several faculty members and will be evaluated at different levels. The course will serve as a catalyst for expanding peer to peer (and alumni) mentoring across the school. The course is in the process of going through a certification process which will hopefully be completed by fall 2016. In the exit survey, 72% of students mentioned they would like to serve as a mentor to UTD students. This is great news considering we can leverage this interest, and build it into the HDS 1214 experience. Specific actions were taken for each learning outcome which can be read above.

Future Plan

A committee has been established to review existing program mission, learning outcomes, and assessment tools to best reflect important benchmarks for student preparation as independent practitioners. Under consideration are inclusion of opportunities for interprofessional collaboration and community engagement.

Beginning 2016-2017, the program will initiate and monitor a program goal for 100 % participation of all students in community-service opportunities.

We have a rubric for each report to encourage assessment to be a conversation about data usage. The rubric for our assessment reports was created after looking at a number of other examples (James Madison University, 2015; Suskie, 2015; University of Kentucky, 2015; WASC, 2014). Heat maps (Heinerichs, Bernotsky, & Danner, 2015) turn these rubrics into a quick visual overview of how individual schools and programs are doing with assessment. The maps help us, in the Office of Assessment, to know where we need to spend time/have meetings and what kind of workshops we need to offer.

Report Review

Assessment Area	1	2	3	4	5	Σ	Review Notes	Review Comments
A. Student Learning Outcomes	-	-	-	-	-	0		
B. Measures	-	-	-	-	-	0		
C. Results	-	-	-	-	-	0		
D. Action Plan	-	-	-	-	-	0		

Review SLO

SLO Coverage

- (item not reviewed)
- SLOs need work (not comprehensive (too narrow, significant areas of the program overlooked))
- SLOs are acceptable (covers most of the program)
- SLOs are outstanding (comprehensive, well organized, serves as a roadmap to the purpose of the program, realistic of what students gain from the program)

SLO Definition

- (item not reviewed)
- Not measurable: verbs are vague, SLOs do not state what students know and can do, unclear how to determine if the outcomes have or have not been met
- Most outcomes use action verbs while others are unclear
- SLOs use action verbs, are time-bound and it is easy to see how they might be assessed. The data are well connected to the outcomes and it is clear how these data will determine if the SLOs have been met

SLO Focus

- (item not reviewed)
- Not student centered: aspirational statement, learning process, goal for teaching
- SLOs are student centered
- Students centered: what students know, can do and believe is clear

Level Connection

- (item not reviewed)
- Not degree level appropriate: no identifiable difference in outcomes between degree programs (BS/BA, MS, PhD)
- Some differences in outcomes between degree programs but not entirely distinguishable
- Clear distinction between course learning outcomes for different degree levels and increasing complexity in learning with higher degree levels

Refer to the screenshot of a blank review rubric below. Notice the space provided for the Office of Assessment to offer feedback and communicate with the departments.

The heat map ranges from red to green. The redder a program is, the more areas of improvement for that program. Whereas the greener a program, the more areas it is doing well in assessment. The growth of our homegrown assessment system has been parallel with the acceptance and use of assessment on our campus.

	Certificate	Bachelor's	Master's	Doctoral
			MS	
		BA	MS	PHD
		BA, BS	MS	PHD
		BS	MS	PHD
		BA, BS	MS	
			MS	
		BA	MA	PHD
			MA	
			MA	
		BS	MPA	PHD

Screenshot of one academic school with a heat map of their assessment report results

The online tool encourages transparency and usability and allows assessment to become a dialogue. One complaint I had heard about assessment reports on this campus when I arrived in 2014 was that people who wrote the reports felt like there was no response. I strived to make the assessment report a living document where it was a conversation between individuals in the program and occasionally with me. I wanted those writing and reading the reports to know that it was an ongoing dialogue.

I use our online tool as a starting point for these conversations, but not as a replacement for those conversations. Because of my philosophy of engaging in assessment through conversations, I try not to keep everything in the assessment tool because I want to have an ongoing conversation about assessment. I still request meetings and send out emails discussing what was posted and turned in.

Since the tool is available online, the Office of Assessment communicates with departments throughout the year, not just during the month that reports are due. One additional feature that the technology team added is the ability to show when a report was last edited. This feature helps me know how individuals are engaging with the system and gives space for individuals to share their ideas and future goals for their programs. The conversation about assessment is not just between the Office of Assessment and the people submitting reports because the system allows faculty to see all academic reports.

One benefit of having an in-house designed assessment system is that the technology team has been responsive to our requests for modifications. The online system was introduced during the spring and summer of 2016 with first reports handed in the fall of 2016. There were many hiccups. The system saved people's entries in a place where they could not see them. Some individuals accidentally entered data in the wrong year, only to discover it after hours of work. Some individuals did not have the necessary permissions to enter any data. I did a lot of smiling, apologizing, and thanking during this time. The team has added features that they thought would be helpful. For example, a confirmation box pops up when a user wants to delete a line of data to prevent accidental deleting of information. As we have more cycles completed in online system, the technology will be able to grow with us and adapt to our specific needs.

Taking into consideration each program's needs, particularly those programs with specialized accreditation, we tried to create an assessment tool that was broad enough to meet each program's needs. For example, we are currently working out how to include tables and other additional information for certain programs that need them. We are still trying to encourage people to use our assessment tool and not another system such as Word documents (the paper and email process) and then transferring information into the assessment tool.

The value of this assessment tool extends beyond academic assessment. This summer we are moving all our non-academic and student affairs programs into the online system.

Looking back at this first year of rolling out our new product, I consider it a successful one. I have received some feedback that this new system is encouraging dialogue between the academic programs and the Office of Assessment. Individuals like that the feedback and report are in the same place and that it is a bit clearer how the reports are being evaluated.

Before jumping in and buying a product or creating a homegrown solution, we think it is essential to think about why you and your faculty do assessment on your campus and the specific campus culture. What questions are essential to the programs doing assessment? And how can you get a solution that addresses these questions? What questions are you as the Office of Assessment trying to answer and what data do you need to collect to answer them? For UT Dallas, we wanted something intuitive to use so the focus is on the data entered, not the computer system. We wanted to encourage sharing of data between programs at the institution. Most of all, we wanted programs to use the data that they were collected for meaningful change for improvement. The questions that drove our design include: How can we encourage programs to use their data? How are people using their data for decisions and change?

This process has made me examine what I really want from an assessment report and hope that your interactions with whatever tool you use, allows the same. I know not every institution has the technology personnel or expertise that we are fortunate to have, but I think the questions raised in this paper are essential to whatever solution/form/program you consider using in your assessment office.

References

Ewell, P. T. (2009, November). *Assessment, accountability, and improvement: Revisiting the tension (NILOA occasional paper no.1)*. Urbana, IL: University of Illinois and Indiana University, National Institute for Learning Outcomes Assessment. Retrieved from http://www.learningoutcomeassessment.org/documents/PeterEwell_008.pdf

Fulcher, K. H., Good, M. R., & Smith, K. L. (2015). *James Madison University: Assessment progress template (APT)*, revised rubric draft. Retrieved from https://www.jmu.edu/assessment/_files/APT_Rubric_sp2015.pdf

Heinerichs, S., Bernotsky, R. L., & Danner, L. R. (2015). Guiding principles to impact an institution-wide assessment initiative. *Research & Practice in Assessment, 10*, 60-64. Retrieved from <http://www.rpajournal.com/dev/wp-content/uploads/2015/06/NIB2.pdf>

Suskie, L. (2015). Exhibit 18.2 Rubric to appraise a college's culture of evidence and betterment [Rubric]. In L. Suskie, *Five dimensions of quality: A common sense guide to accreditation and accountability* (p. 207). San Francisco: Jossey-Bass.

University of Kentucky. (2015). *Office of University Assessment SLO assessment report rubric*. Retrieved from http://www.uky.edu/ie/sites/www.uky.edu.ie/files/uploads/Assessment/IEWebsite/SLO%20Assessment%20Report%20Rubric_05-07-2015_0.pdf

WASC Senior College and University Commission. (2014). *Program learning outcomes rubric: Rubric for assessing the quality of academic program learning outcomes*. Retrieved from <https://www.wscuc.org/content/rubric-program-learning-outcomes>

Gloria Shenoy, PhD, is Director of Assessment at the University of Texas at Dallas. She may be reached at gloria@utdallas.edu.

A special thanks to Drs. Michael Carriaga, Jessica Murphy, and Mary Jo Venetis for their input on this article. Also a special thanks to the Provost Technology Group for creating and continually improving our assessment tool. The assessment tool described in this article is currently only available for University of Texas at Dallas use.

Collecting Outcomes Data using Pre-existing In-class Assessments and Resources

By John F. Dawson

The Department of Molecular and Cellular Biology at the University of Guelph offers majors in Biochemistry, Microbiology, and Molecular Biology and Genetics. For all three majors, the same eight core courses must be completed. Achieving the outcomes of these courses is critical for student success in their later courses and in completing their degrees.

Since the core courses were established before learning outcomes were required in our courses, I wanted to build a workflow that would allow us to collect student outcomes data through the core courses without having to re-invent the wheel. While instructors collect information about student achievement of outcomes through their regular in-class assessments, these data about the specifics of student achievement are often discarded. The overall grade on exams and tests is recorded in gradebooks, but student performance on specific questions relating to the outcomes of the course is not.

Rather than develop new assessments to measure student achievement of outcomes in our courses, which would require a lot of effort (something colleagues might balk at), I thought: why not employ the questions on assessments that we are already using? To do so, we only needed to overtly link the questions being asked to specific course learning outcomes. In practice, instructors naturally do this linking when they set exams and tests: “I need to set a question about ____.” Since our course learning outcomes are linked through an institutional framework, any data we collect at the level of course questions can be translated through the framework (see Worthington et al. 2016¹ for the framework we use).

To collect data, grading involves an added activity. Rather than simply tabulating the total grade of an exam, the scores on each question or section that assess specific course learning outcomes are recorded. Analysis and interpretation of these data can then inform discussions about student performance and preparation, leading to course improvements.

Collecting outcomes data from online quizzes with available resources

The first step in this process was linking existing questions with learning outcomes. We embarked on an ambitious project to evaluate all available questions from exams and tests in the eight core courses in my department, linking each question with a course learning outcome and a Bloom’s taxonomy category (Worthington et al. 2016). Three Biochemistry undergraduate students were hired to do this work, which was funded by a Learning Enhancement Fund Grant from the university. They assessed and coded almost 1,600 questions, linking them to the learning outcomes framework.

The next step was using the linked questions in assessments and collecting the resulting outcomes data. As a proof of concept, we collected data from online quizzes in our Introductory Biochemistry course. This course has an enrollment of about 1,800 students each academic year with students from the entire breadth of science majors across the university.

¹ Worthington, P., Dewancker, A., Larush, N., Lackeyram, D., and Dawson, J.F. 2016. Engaging Student Stakeholders in Developing a Learning Outcomes Assessment Framework. WCSE Conf. Proc. 1: Article 8.

Rather than using proprietary software to collect learning outcomes data, which can require significant investment, we used data that was already available through the online quizzing tool of our learning management system (LMS), Courselink (Desire2Learn; Kitchener, ON). The Courselink system can visualize the overall scores on quizzes by individual student or by question using the Statistics function. Alternatively, the Grade Quiz function provides a detailed report of the responses of each student for each attempt of each question on every quiz. All of these data can be exported from Courselink as text or as an Excel file.

Scores from individual questions from these quizzes were downloaded for analysis using Excel. After six semesters, our dataset includes over 250,000 points, where each point represents one question completed by one student linked to one course learning outcome.

Some of the results from our Introductory Biochemistry quizzes are shown in Figure 1. For this report, the specific outcomes are not important. Overall, our students are scoring at or above the level of 70% performance on questions related to the course learning outcomes. Performance on course learning outcome E is higher than others because there are fewer questions based on chemical equations and arithmetic. Maintaining data by semester and academic year can reveal patterns between cohorts. For example, the winter cohorts, that include the non-molecular life or health science majors, appear to perform a little lower than the other cohorts.

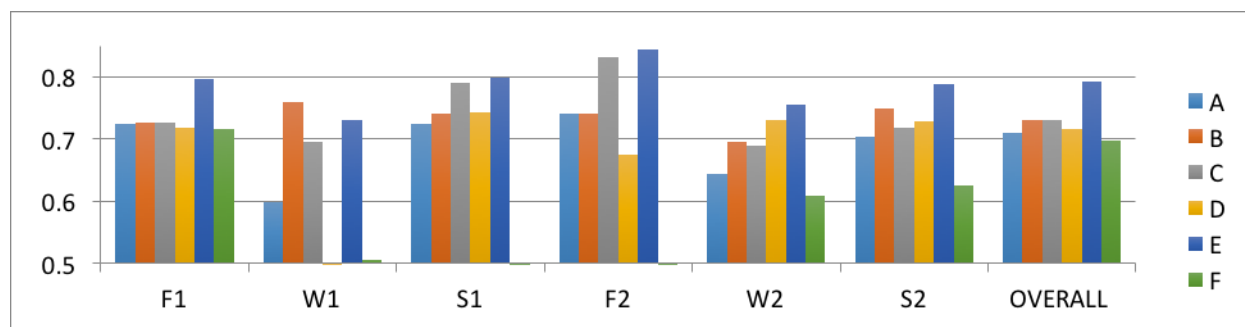


Figure 1: Performance on Online quiz questions in Introductory Biochemistry organized by Course Learning Outcome.

A weighted average for each course learning is shown as fraction of 1 on the y-axis (Overall N = 255,927 data points). On the x-axis, F = Fall semester; W= Winter semester; S= Summer semester; number refers to academic year. The legend describes different course learning outcomes. Note in W1, S2, and F2, not all CLOs were assessed using online quizzes.

Figure 1 provides one example of a report from our dataset. We can also examine the outcomes data from the perspective of course concepts and correlate Bloom's taxonomy category and outcome. We also tracked the type of question posed (mainly multiple choice and short answer questions). These data can be reported out as class averages, as in Figure 1, and can be interrogated at the level of individual students, or subgroups of students, such as those students enrolled in a specific program. Multiple dimensions of the data can inform discussion about student learning of specific concepts, course outcomes, or their general cognitive level.

Informing Improvement

The analysis of outcomes data can now be used to inform discussion about continuous improvement of courses. In the case of Introductory Biochemistry, we can consider diverting time and effort from concepts and activities related to course outcome E to other course outcomes where students are not performing as well; for example, outcomes A, D, or F. Additional resources and supports might be enacted and encouraged for the winter semester cohort to improve their performance in the course. Since the students in the winter are generally non-molecular life and health science majors, in-class examples can be carefully chosen to relate to the students enrolled in the winter. In addition, Supported Learning group leaders could receive additional training to support learners in the winter semester for those outcomes that are targeted for improvement, using examples that relate more to the students. Overall, we are transforming the curriculum for the course for more in-class active learning, including modeling equations with data and a case study. Our current performance data will act as a baseline to determine the impact of our revisions to the course.

We can report out learning outcome achievement to students as part of their feedback, providing more specific information about how they are doing in each learning outcome. In this way, students can work on weaknesses while maintaining and growing their strengths.

Instructors can identify areas of growth for individual students or groups of students. For example, students who underperform on arithmetic-based questions could be connected to additional resources to build those skills. Such learner-centered approaches would benefit students at risk of failure or suspension, helping retain and train students.

By grouping students by major instructors can identify programs that underperform in specific outcomes compared to other programs, sparking research into the prerequisites of those programs or the preparedness of students in those programs. Our own data suggest that targeting the majors that typically enrol in the course in the winter will raise their performance.

Challenges

Evaluating course learning outcomes using our system is not a panacea. Sometimes, pre-existing questions are associated with more than one learning outcome; perhaps a result of creating questions before learning outcomes were applied to courses or by setting questions without actively keeping the learning outcomes in mind. In these cases, the performance on the question was “double-counted” because the performance was recorded for all outcomes related to that question.

Online quizzes have inherent challenges with collaboration or misconduct. Students can work in groups and share questions and answers. Test bank questions can be copied and relayed to future students, diminishing the utility of questions. As new questions are created, they need to be linked to outcomes (and the Bloom’s taxonomy level).

There is no standard level of performance that we desire. That level is set arbitrarily, depending on the course. Many factors might be included in developing a standard desired level of performance, including the Bloom’s level of the question, the type of assessment and the level to which the outcome is expected to be met (Introduce, Reinforce, Master).

Finally, in our pilot study, different instructors used different subsets of quiz questions in different course formats, resulting in gaps in outcomes data for some semesters. While not evaluated with online quizzes, these learning outcomes were assessed on midterms and final exams, but the outcomes data were not collected. Likewise, the dataset does not capture data regarding practical laboratories in the Introductory Biochemistry course that address other learning outcomes.

Our results show that collecting even partial outcomes data in courses using systems, software, questions and data that already exist provides good information about student performance that can help guide course improvement and further research.

What the Future holds

The next step in collecting outcomes data in the Core courses is to collect data from midterms and exams, and then development mechanisms to collect outcomes data for laboratories and tutorials. The simplest process would be to manually collect data about each question on midterms and exams. Assessment capturing systems such as GradeScope or Crowdmark, where exams are scanned and then graded electronically, could be used to collect detailed data about performance on questions linked to learning outcomes in a format that can be analyzed immediately. In fact, some assessment capturing systems offer analytics of questions as part of their reporting.

There is a trade-off between paying for proprietary software that links outcomes to questions and analyzes outcomes data and the effort of doing the same workflow on your own. Downloading and formatting data for analysis using spreadsheets can be cumbersome. In the future, learning management systems (LMS) will incorporate the features of the workflow described here, providing reports specific to courses and programs to instructors and students. We have been working with our LMS provider to create such a system and are looking forward to using that system when it comes online.

Conclusion

Collecting outcomes data using pre-existing assessments and resources provides good information about student performance without requiring the creation of new assessments or purchasing new software. There are two main messages: First, proprietary software is not necessarily needed to collect learning outcomes data. In the work described here, a workflow for linking questions to outcomes, data collection and data analysis was created outside the framework of software designed specifically for this purpose. Second, start collecting data, even if only part of it can be captured, and begin the discussion about student learning and course improvement!

The stages of our work were (1) linking pre-existing assessment questions to course learning outcomes and Bloom's taxonomy categories, (2) collecting outcomes data with online quizzes in one of our large Core courses, and (3) analyzing the data from our learning management software using widely available spreadsheet software. With this process worked out, departments and institutions can more formally apply our workflow within systems that seamlessly report out outcomes data, informing improvement of courses and programs and providing vital information to students about their achievements and progress.

Acknowledgements

I am grateful to the students who worked on this project: Paisley Worthington, Allison Dewancker, and Nicole LaRush. I am also thankful to Dr. Dale Lackeyram, Director of Educational Development at the University of Guelph's OpenEd Office, for his participation and advice with this work. The project described in this work was funded by a Learning Enhancement Fund grant from the University of Guelph.

John F. Dawson, Ph.D. is Director of the College of Biological Science Office of Educational Scholarship and Practice and Professor of Molecular and Cellular Biology at the University of Guelph. He can be reached at jdawso01@uoguelph.ca

Using Google Apps to Manage Assessment²

By Katherine Cermak and Shirley Lin

Seeking to make assessment more manageable, many schools have invested in assessment management systems or modules associated with learning management and portfolio systems designed to facilitate improvement of student educational experiences. This can be a viable and appropriate option for colleges with the resources to purchase these systems and with sufficiently widespread technical ability to maintain and fully use them. However, tight budgets are a reality at many institutions and attitudes toward technology vary widely with some faculty and staff viewing it as helpful while others perceive it as threatening.

In order to address these challenges, the Naval Academy chose to pursue an in-house solution using a set of existing enterprise collaboration tools, G Suite from Google.³ Creatively adapting the existing Forms and Sheets applications allowed us to address challenges associated with collecting and organizing assessment information, rubric norming, and documenting our activities. Moreover, by using an existing product that was somewhat familiar and largely intuitive to most faculty and staff, we were able to accommodate our constituents without straining budgets.

Challenges for Faculty Members and Departments

[W]e still have some challenges of a technical, or technological, nature. Scoring of rubrics is done by hand on paper, and data entry into [Microsoft] Excel is a somewhat laborious task. . . . Our bar graph . . . is courtesy of a faculty member's spouse, which points to the lack of institutional support and resources for assessment (as well as to the generosity of professors and their families). (2012 Assessment Report – used with departmental permission)

Assessment of student learning, while an extension of teaching, often requires faculty members, disciplinary experts and skilled educators, to develop new technological skills. While some discomfort may exist in the conceptual shift from improvement of individual courses to the program-level, for many it is the collection of information and analysis of the data that can be daunting.

When outcomes-based assessment of student learning was in its infancy it was not unusual to hear about volumes of student work moldering in filing cabinets, awaiting time for analysis that never materialized. If analysis occurred, it often took place at the level of the individual students rather than the program. Compiling and using assessment results at the department level was simply not a skill that had previously been developed as part of many faculty members' academic careers. The quote at the beginning of this section showed that we needed to meet faculty members where they were and to use intuitive, transparent technology to bridge their discomfort.

The use of Google Forms, a G Suite tool, addressed both the need to collect data in an electronic format and simplify the aggregation and reporting of the results. This in turn enabled faculty to focus on using the results to improve student learning. In some cases, the time required to move from scoring student work to having a product that could be analyzed and discussed was reduced from several months to a few days.

Existing scoring guides and rubrics can be easily converted into an electronic survey format by building a Form.⁴ When constructing a Form, options include a space for instructions, fixed or open-ended items, and ability to designate an item

² Based on materials from presentation Using Google Apps for Assessment: Intuitive, Efficient, and Free by Cermak and Lin at the 2017 Association for Institutional Research Annual Forum.

³ G Suite for Education is free and FERPA compliant and the same apps are available at no charge through the Chrome Web Store.

⁴ Instructions are available at [Google's G Suite Learning Center](#).

as required or optional. For the example, a rubric was built with criteria, levels of achievements, and descriptors. The result looks and feels very much like an on-line survey that most are already familiar with, and the pitfalls of paper and pencil scoring (missing data, invalid selections, etc.) are avoided.

The rubric form can then be distributed through a link included in an e-mail or the form itself can be embedded within the message. Google Forms are formatted for mobile devices such as phones and tablets as well as computers. The owner of the form and designated collaborators can view responses as they are submitted and, if the option for collecting email addresses had been selected, the owner can send targeted reminders.

Data analysis is simplified with an automatically generated summary report containing charts with counts and percentages that are ready to be examined and discussed by faculty members.⁵ The summary report can be saved as a PDF and included as-is within an assessment report or as an appendix. Alternatively, the snapshot tool in Adobe Reader can be used to capture and paste tables into assessment templates with no further manipulations, or one can simply take a screenshot of the report and crop out the extraneous materials.

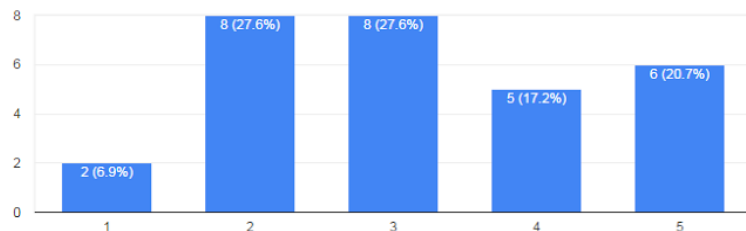
The raw data itself is available in Google Sheets,⁶ which is similar to Microsoft Excel, or can be downloaded in a variety of formats including CSV, XLSX, TSF, and PDF.

The screenshot shows a Google Form titled "Sample Essay Rubric Form". It is divided into three sections:

- Section 1 of 3:** Contains a warning: "Be aware that when filling out this rubric scores will be typically be lower than course grades for the same assignment as scoring a student essay using this rubric is not intended to be equivalent to determining a grade. The reasons for this are many. First, the rubric uses a 100-point scale, in theory most instructors also use a 100-point scale for grading, but practically speaking many confine grading within the 60-100 point range. Second, factors external to the final product may affect a student's grade; for instance, some instructors may grade in part on improvement or may remove points for late assignments. Third, the attached rubric is used to evaluate writing at all levels of our program from general education freshman courses to senior major requirements. Scores on freshman essays range from 25 to 75 with an average score of 54." Below this is a "Continue to next section" button.
- Section 2 of 3:** Titled "Information", it contains a "Student ID" text input field and another "Continue to next section" button.
- Section 3 of 3:** Titled "Content and Thesis (30%)", it lists four expectations:
 - Unacceptable: Superficial ideas, no discernible thesis, and focus is unclear.
 - Approaching Expectations: Ideas are mixed in terms of quality, thesis is identifiable, but weak, and focus wanders.
 - Minimally Meets Expectations: Ideas are moderately good, thesis is identifiable but weak, and focus is inconsistent.
 - Fully Meets Expectations: Solid ideas; thesis is rote, but effective; and well-focused throughout.
 Below the list is a "Question" field and a 5-point Likert scale with radio buttons labeled 1 through 5.

Content and Thesis (30%)

29 responses



⁵ In early versions of Google Form, tables could be copied from a printable summary report and pasted into another document. Unfortunately, this is no longer supported.

⁶ There is a limit of 400,000 records per Sheet.

Timestamp	Email Address	Student ID	Content and Thesis	Mechanics	Usage	Style
6/22/2017	sample@usna.edu	sample	1	4	2	1
6/22/2017	sample1@usna.edu	sample1	5	3	4	4
6/22/2017			4	2	3	3
6/22/2017			4	3	3	3
6/22/2017			3	2	2	4
6/22/2017			4	4	4	4

Google Forms has proven popular with faculty members, while some needed help getting started, they quickly took ownership. The same tool can also be used to create quizzes for direct assessment and end-of-course evaluations for indirect measures of student learning. The Forms application is being used from English to Electrical Engineering to improve data collection, organization, and analysis. Most importantly, it has allowed faculty to simplify management of assessment materials and transition to using assessment results for improving student learning.

Challenge for College/Institution Assessment Committee Members

At the Naval Academy, departments submit assessment reports for their majors and general education courses to an overarching committee that is part of the faculty senate. This committee is charged with nurturing a culture of student learning assessment by providing training and resources, sharing best practices, and giving feedback to both departments and the Provost’s office to encourage continuous improvement of all aspects of the process from creating outcomes through carrying out assessment-informed actions. The membership consists of faculty and staff from various disciplines who bring different levels of assessment experience when they first join the committee. At the beginning of each academic year, returning committee members work with new members to develop expectations with regard to assessment in order to provide consistent and useful feedback to departments. Additionally, the committee needs to be able to document its activities and preserve knowledge as membership changes from year to year.

Defining expectations was originally managed by developing an assessment report rubric with criteria regarding:

- learning outcomes (student-centered and appropriate levels of learning),
- on-going processes (closing the loop and addressing outcomes within a reasonable period of time),
- alignment with institutional outcomes,
- methodology (direct assessments, population or reasonable sample, and process engaged others vs conducted in isolation), and
- performance (target levels set and performance reported).

Initially committee members used separate hard copies of the rubric for each report they were assigned to review; this approach decreased the learning curve for new members. However, norming was sporadic, occasionally resulting in members providing inconsistent feedback to departments. Additionally, the completed rubrics were not systematically collected and preserved to document our activities or to be available for future committee members.

By using Google Sheets, we were able to manage information in an online environment that facilitated collection, norming, and documentation. The first step was to create a master sheet or tab that reflected the contents of the rubric. This included a cell at the top for the name of each department being review (in this case, a link to the department report shared with all members through Google Drive) and the reviewer’s name. Report criteria were organized in rows; levels of accomplishment in columns, descriptions in each of the cells, a response column with a drop-down menu for selecting the level of accomplishment, and finally a column for adding comments. The master tab was duplicated and labeled for each committee member.

REVIEWER	Exemplary	Fully Met	Developing	Not Present	Highlight Cell Below/Click on Arrow in Right Corner/Choose from List	Comments
Sample Course						
Student Learning Outcomes: Student Centered	Learning outcomes are student centered statements of what students will know or be able to do.	Learning outcomes are not student centered instead indicating what the department or instructors will do.			Fully Met	Focus is on the actions that students will take to demonstrate competency in the outcomes. Indicators are helpful ways to operationalize the outcomes.
Level of Thinking	Learning outcomes culminate in the highest (appropriate) levels of thinking. (http://www.usna.edu/Academics/Academic_Deans/Assessment/index.php).	Learning outcomes primarily focus on what students will know or understand, but not how they will use that knowledge or understanding.			Fully Met	Levels appear appropriate for a core course and indicators help to clarify scaffolding within the courses.
Curriculum Coverage	The number of outcomes is reasonable to cover essential learning of the outcomes. There are not too many outcomes (suggesting that some can be combined) or too few (suggesting that outcomes need to be unpacked).	The outcomes either fail to cover essential learning within the program or address areas tangential to the program.			Fully Met	
Assessment is an on-going process: On-going	Assessment is an on-going process of data collection, evaluation, and improvement with outcomes scheduled to be assessed over a reasonable period of time (about every 4 years).	Not all outcomes are scheduled to be assessed or assessment is occurring on an episodic basis.			Fully Met	Page 17. Are all aspects of LO 1 being addressed? Atomic/Molecular Theory, Thermodynamics, and Kinetics?
Assessment Action	As appropriate, action(s) have been taken, based on the findings from past assessments. The effect of those actions on student learning and outcome achievement have been assessed and evaluated.	As appropriate action(s) have been taken on the findings completing an assessment cycle (collection, evaluation, and action).	Assessment takes place, but there is no documentation that results are used to inform departmental discussions or decisions about teaching strategies or student learning.		Exemplary	2014-15 Examined to stoichiometry. To determine if changes in student learning.

For purposes of norming as a group, each committee member individually completed the rubric, using his or her tab. A helpful feature of Google Sheets is the ability of committee members to simultaneously work within their respective tabs.

Information is brought together by linking the response column on each tab to its own column in a summary tab. Results are generated by creating a

column for each possible response and using a COUNTIF function (the same as in Microsoft Excel) to tally each response. In this way it is easy to see where the group agreed and disagreed, allowing norming conversations to be focused where they were most needed.

The same approach was used for each department report, but with fewer tabs, since a subset of the committee reviewed

Sample Course	Exemplary Count	Fully Met Count	Developing Count	Not Present Count	ONE	TWO	REVIEWER	THREE	ELEVEN	ONE	TWO	REVIEWER	THREE
Student Learning Outcomes: Student Centered	0	12	0	0	1	Fully Met	Not Present	Fully Met	Fully Met				
Level of Thinking	0	11	0	1	Fully Met	Not Present	Fully Met	Fully Met	Fully Met				
Curriculum Coverage	0	11	0	1	Fully Met	Not Present	Fully Met	Fully Met	Fully Met				
Assessment: On-going	0	11	1	0	Fully Met	Fully Met	Fully Met	Fully Met	Fully Met				

each report. The information was collected in a single Google Sheet. The primary reviewers were able to ensure that everyone had completed their review, and meetings to improve consistency were arranged prior to the committee action of providing in-person feedback to the department. Finally, responses were preserved in a shared folder within Google Drive. In this way the rubrics have become corporate memory, accessible to future committee members, and constitute a record to show accreditors our process for continuous improvement that engages faculty and staff members.

Challenge for Administration

For academic administrators, it is a challenge to show that assessment is an ongoing process that results in improvement of student educational experiences. Evidence of progress needs to be presented annually by succinctly summarizing reports from more than 1,000 pages of text and images for twenty-five majors and thirteen departments that support the components of the Academy's general education program – a number that can be much greater at larger institutions.

In order to aggregate and present information in a simplified format, we turned once again to Google Forms. A survey format facilitated collection of frequently requested information including compliance, the outcomes assessed, direct and indirect assessment, and how results have been used.

Basic information was filled out for each assessment report with lengthier portions often copied and pasted from the report into text boxes to create a single document with details about assessment methods, results, and how departments implemented changes as a result of assessment activities.

Data was then collected and available as a summary in Forms or in Sheets. In Sheets the tab with all information can be duplicated and sorted to show information for the entire institution, college or division. At this point the original data sheet serves as backup for accreditors or administrators who want to examine the results without perusing the volumes of paperwork used to generate this information.

Assessment Status Table

* Required

Report Type *

- Core
- Major
- Other: _____

Select Department Name *

Choose ▼

Select Division

- Engineering and Weapons
- Humanities and Social Sciences
- Leadership
- Mathematics and Science
- Professional Development
- Other: _____

Assessment Report Submitted *

- Yes
- No

Learning Outcomes Assessed *

- Yes
- No

Learning outcome(s) assessed

Your answer _____

DIRECT assessment of student learning included. *

- Yes
- No

Indicate types of DIRECT assessment conducted, if any.

Your answer _____

Indicate types of INDIRECT assessment conducted, if any.

Your answer _____

Future actions identified, as a result of the current assessment activities. *

- Yes
- No
- No actions were needed

Assessment actions identified as a result of current assessment activities.

Your answer _____

Type of Report	Department Information	Assessment Report Submitted	Learning Outcomes Assessed	DIRECT assessment of student learning included.	Future actions identified, as a result of the current assessment activities.	Actions as a result of previous assessment activities
Core	Aerospace Engineering	Yes	Yes	Yes	Yes	Yes
Core	Electrical and Computer Engineering	Yes	Yes	Yes	Yes	Yes
Core	Mechanical Engineering	Yes	Yes	Yes	Yes	Yes
Core	Naval Architecture and Ocean Engineering	Yes	Yes	Yes	Yes	Yes
Core	Weapons and Systems Engineering	Yes	Yes	Yes	Yes	Yes
Major	Aerospace Engineering	Yes	Yes	Yes	Yes	Yes
Major	Electrical and Computer Engineering	Yes	Yes	Yes	Yes	Yes
Major	Mechanical Engineering	Yes	Yes	Yes	Yes	Yes
Major	Naval Architecture and Ocean Engineering	Yes	Yes	Yes	Yes	Yes
Major	Systems Engineering	Yes	Yes	Yes	Yes	No Actions Were Needed
	Engineering Core	100%	100%	100%	100%	100%
	Engineering Majors	100%	100%	100%	100%	100%
	Engineering All	100%	100%	100%	100%	100%

Limitations

There are two areas to be aware of before trying out Google Apps. The first is whether or not the apps will be used to gather or manage Personally Identifying Information (PII) or any other information that is FERPA protected. G Suite for Education is FERPA compliant and available at no cost. The same applications are individually available through the [Chrome Web Store](#), but do not claim to be FERPA compliant. The other caution is that the tools serve a variety of stakeholders in government, education, business and general populations and new versions are periodically released. Sometimes the updates are for functions that we have been hoping for, and in other cases aspects of the tools that we have used may no longer be available or if they continue to exist may be a bit difficult to find or require more steps to use.

Type of Report	Department Information	Division	Assessment Report Submitted	Learning Outcomes Assessed	Learning outcome(s) assessed	DIRECT assessment of student learning included.	Indicate types of DIRECT assessment conducted, if any.	Indicate types of Indirect assessment conducted, if any.	Future actions identified, as a result of current assessment activities.	Assessment actions identified as a result of previous assessment activities.	Actions as a result of previous assessment activities	Types of actions taken as a result of previous assessments, if any.
Core	Choreography (Sample)	(Sample)	Yes	Yes	2. Communicate meaning in dance. 3. Work with partners and teams.	Yes	Communicate effectively, expert performance	None	Yes	Create more structured pre-assessment activities.	No actions were needed	
Major	Electrical and Computer Engineering	Engineering	Yes	Yes	(a) an ability to apply	Yes	Capstone Mentor Tool, Rubric (c)	Senior Exit Survey, Course Co	Yes	The faculty senate assess	Yes	
Major	Ocean Engineering	Engineering	Yes	Yes	a, b, c, d, e, f, g, h, i	Yes	Capstone review panel (c, d, e, g)	student exit surveys (f, i)	Yes	The following actions are: - Develop rubrics for out- - Intake matrix changes		
Major	Naval Architecture and Ocean Engineering	Engineering	Yes	Yes	Outcome C - an e	Yes	Outcomes C and F were assessed	Exit survey	Yes	- Update Outcome G rubric - Update Outcome I rubric - Faculty will try to emphasize the judges were very - For AY-2017, Outcomes		Several recommendations: - Update the assessment - Assign the new Outcomes - Save copies of student work - Potentially modify a - Changes to EN249
Major	Systems Engineering	Engineering	Yes	Yes	A-K	Yes	Lab reports Final project reports Proposals Oral presentations	Instructor (in-class) observation	Yes	All performance measures 1. Stimulate discussions L. Leverage the "Heads" ii. Real life examples / C 2. Monitor capstone deal	No actions were needed	There were no records
Major	Aerospace Engineering	Engineering	Yes	Yes	A, B, C, D, E, F, G, I	Yes	External Review of Capstones	Follow-on activities: grad scho	Yes	1. Top-Down CDO Review 2. Development of Assessment analytics		Rotocraft curriculum
Major	Mechanical Engineering	Engineering	Yes	Yes	B, G, I, and J	Yes	Capstone Mentor Tool, Final Capstone	Exit Survey, MERCAA	Yes	no actions were needed		
Core	Aerospace Engineering	Engineering	Yes	Yes	1. Fundamental engineering	Yes	Common exam items	Student survey	Yes	Rewrite and rescope is Will consider introducing	no actions were needed	Course coordinators
Core	Electrical and Computer Engineering	Engineering	Yes	Yes	1. Fundamental engineering	Yes	Final exam (final)	Final grades	Yes	Adjust final exam to ensure		Additional efforts to enhance informal classroom collaboration on metrics Tracking for 3 years
Core	Mechanical Engineering	Engineering	Yes	Yes	1. Fundamental engineering	Yes	Final exam	Student survey, MERCAA	Yes	Include student evaluation Course coordinator will Changes to assessment Adjust rubric after discussion Improve RADAR lab equipment LEGO minimum effort		Detect to Engage per Rubrics designed at Topics aligned and tracked
Core	Naval Architecture and Ocean Engineering	Engineering	Yes	Yes	1. Fundamental engineering	Yes	Final exam items		Yes	Identified student performance		Previous year's records
Core	Systems Engineering	Engineering	Yes	Yes	1. Fundamental engineering	Yes	Rubrics for labs, exams, or homework		Yes	Brown-bag based on assessment		AY 2013-14's assessment
Major	Economics	Humanities and Social Sciences	Yes	Yes	1) Apply economic concepts	Yes	Common exam items (local and external)	Faculty conversations regarding	Yes	Relationship to the assessment		
Major	English	Humanities and Social Sciences	Yes	Yes	1. Write thesis-driven	Yes	Rubrics	Focus Groups	Yes	The committee was interested		
Major	History	Humanities and Social Sciences	Yes	Yes	the chief recommendation	Yes	Rubric?	Focus groups.	Yes	The department committed		No actions were needed
Other	Languages and Cultures	Humanities and Social Sciences	Yes	Yes	For AY2016 all languages	Yes	Samples of student oral skills scores		Yes	Will create a rubric and use		Learning outcomes
Major	Political Science	Humanities and Social Sciences	Yes	Yes	2. A political science	Yes	Sample of student work and rubric		Yes	A. Results of the student		
Core	English	Humanities and Social Sciences	Yes	Yes	1) Writing Competency	Yes	Rubric and assignments.	Survey of students	Yes	B. One or more brown bags		
Core	History	Humanities and Social Sciences	Yes	Yes	A. Historical competency	Yes	Instructor Essay Questions (unique)	Focus groups.	Yes	C. Rather than wait until		
Core	Political Science	Humanities and Social Sciences	Yes	Yes	2. A political science	Yes	Sample of student work and rubric		Yes	Will carefully watch student work		The chief recommendation Actions taken as a result

Conclusion

Assessment can be daunting, and—unfortunately—technological tools can further act as barriers. However, technology can also be used to facilitate the assessment process. It can be used by faculty and staff to overcome the managerial challenges of assessment and increase engagement with the process, and using the results for improvement. At the Naval Academy, constrained budgets led us explore ways to creatively use Google Apps for a variety of assessment activities. The applications (in particular Forms and Sheets) have proved useful for improving data collection and management, norming rubrics and setting expectations, aggregating information, and documenting activities at multiple levels of the organization. With these tools we have been able to meet faculty and staff where they are at and improve the assessment process at the Naval Academy.

Katherine Cermak, PhD is the Associate Dean for Assessment and Planning at the United States Naval Academy. She can be reached at cermak@usna.edu

Shirley Lin, PhD is a Professor of Chemistry at the United States Naval Academy. She can be reached at lin@usna.edu

Data Collection for Outcomes Assessment through the Learning Management System

By Karen DiGiacomo

Since its inception in 2007 as the nation's first independent 100% online state university, Colorado State University-Global Campus (CSU-Global) has utilized technological tools to serve its students and fulfill its mission. Digital learning has called for the creation of digital assessment methods. Knowing that today's learning management systems have the capacity to collect many kinds of student data—from time spent in courses to their scores on assignments—university leaders sought to create an assessment approach that could utilize data gathered directly from the learning management system (LMS). The intention was to assess student achievement of outcomes by collecting and aggregating scores that students earn on targeted assignments aligned with specific learning outcomes. Through its implementation CSU-Global, this idea has led to an efficient, scalable, and comprehensive system for assessment of student learning.

The Foundation for Data Collection

Before an LMS-driven data collection system could be constructed, the foundation for assessing student learning needed to be put in place. Today, all programs at the university have defined learning outcomes, and course assignments are designed in such a way where students demonstrate their level of mastery of the course and program outcomes when they complete assignments. To ensure that assignments are aligned to outcomes, all of the major assignments in every course are mapped to course-level learning outcomes in a *course design document*, which is developed for each course and stored in the university's content management system. All of the course-level learning outcomes are in turn mapped to program-level learning outcomes.

Course Design Document		
Course Information		
Course Code and Title:		
Course Description:		
Course Outcomes (CO)		
#	Course Outcome	
1		
2		
3		
4		
Module 1		
Module 1 Assignments	Assignment Description	Mapped CO#
Discussion Board		
Critical Thinking Assignment		

FIGURE 1: EXCERPT FROM A COURSE DESIGN DOCUMENT TEMPLATE SHOWING HOW ASSIGNMENTS ARE MAPPED TO OUTCOMES.

Every online course offered at CSU-Global has a standard, eight-module master course key containing things such as the course lectures, discussion questions, and assignments. The course key is duplicated every term for as many course sections as are needed. Having a master course key ensures curricular consistency across all course sections and benefits the process of assessment of learning because all students are completing assignments that have been developed with an eye toward outcome attainment.

Equally as important as designing assignments geared toward having students demonstrate outcomes is the intentional creation of rubrics that are designed to assess student work and determine the level at which students have achieved the outcomes. CSU-Global utilizes rubrics to both assess student learning and grade student work. Utilizing assignment rubrics for dual purposes is efficient:

CRJ330 Critical Thinking Assignment Rubric - Module 6				
Criteria	Meets Expectation	Approaches Expectation	Below Expectation	Limited Evidence
Requirements, Content, and Analysis				
	17-20 Points	13-16 Points	9-12 Points	5-8 Points
Requirements	All of the specified requirements are included in the assignment.	Most of the specified requirements are included in the assignment.	Some of the specified requirements are included in the assignment.	Few of the specified requirements are included in the assignment.
	17-20 Points	13-16 Points	9-12 Points	5-8 Points
Content	Demonstrates strong knowledge of a research article; correctly represents knowledge from the readings and sources.	Some significant but not major errors or omissions in demonstration of knowledge.	Major errors or omissions in demonstration of knowledge.	Limited demonstration of knowledge of the materials.
	9-10 Points	7-8 Points	5-6 Points	3-4 Points
Critical Analysis	Provides a strong critical analysis and interpretation of the information given.	Some significant but not major errors or omissions in analysis and interpretation.	Major errors or omissions in analysis and interpretation.	Provides limited critical analysis and interpretation of the information given.
Mechanics and Writing				
	9-10 Points	7-8 Points	5-6 Points	3-4 Points
Organization, Grammar, and Style	Assignment is clearly organized, well written, and in the required format. Strong sentence and paragraph structure; few errors in grammar and spelling.	Assignment is fairly well organized and written, and is generally in the proper format. Reasonably good sentence and paragraph structure; significant number of errors in grammar and spelling.	Assignment is poorly organized and does not follow proper format. Inconsistent to inadequate sentence and paragraph development; numerous errors in grammar and spelling.	Assignment is not organized or well written, and is not in proper format. Poor quality work; unacceptable in terms of grammar and spelling.
	9-10 Points	7-8 Points	5-6 Points	3-4 Points
APA Formatting	Assignment contains proper APA formatting.	Some significant but not major errors in APA formatting.	Major errors in APA formatting are present.	Limited use of APA formatting is present.
Total points possible = 70				

FIGURE 2 A SAMPLE RUBRIC FOR A CRITICAL THINKING ASSIGNMENT.

four performance categories on the rubric that are consistent among all courses at the university: meets expectation, approaches expectation, below expectation, and limited evidence.

Faculty members simultaneously grade student work and assess student learning with the same scoring rubric, so they are not asked to assess student learning as a separate, time-consuming assessment initiative. The rubrics used to score student work are embedded in the online course and visually placed next to their corresponding assignments, so all students know in advance the criteria under which their work will be assessed. Criteria that are connected to the assignment requirements are defined on each rubric. There are

Within the LMS, faculty score each criteria and provide feedback to students on their work, as seen in Figure 3.

Criteria	Rating								Pts
Requirements	20 Includes all of the required components, as specified in the assignment.	18 Includes all of the required components, as specified in the assignment.	16 ✓ Includes most of the required components, as specified in the assignment.	14 Includes most of the required components, as specified in the assignment.	12 Includes some of the required components, as specified in the assignment.	10 Includes some of the required components, as specified in the assignment.	8 Includes few of the required components, as specified in the assignment.	5 Includes few of the required components, as specified in the assignment.	16
Content	20 Demonstrates strong or adequate knowledge of a research article; correctly represents knowledge from the readings and sources.	18 Demonstrates strong or adequate knowledge of a research article; correctly represents knowledge from the readings and sources.	16 ✓ Some significant but not major errors or omissions in demonstration of knowledge.	14 Some significant but not major errors or omissions in demonstration of knowledge.	12 Major errors or omissions in demonstration of knowledge.	10 Major errors or omissions in demonstration of knowledge.	8 Fails to demonstrate knowledge of the materials.	5 Fails to demonstrate knowledge of the materials.	16
Critical Analysis	10 Provides a strong critical analysis and interpretation of the information given.	9 ✓ Provides a strong critical analysis and interpretation of the information given.	8 Some significant but not major errors or omissions in analysis and interpretation.	7 Some significant but not major errors or omissions in analysis and interpretation.	6 Major errors or omissions in analysis and interpretation.	5 Major errors or omissions in analysis and interpretation.	4 Fails to provide critical analysis and interpretation of the information given.	3 Fails to provide critical analysis and interpretation of the information given.	9
Manage Rubrics									Total pts: 61 /70

FIGURE 3. EXCERPT FROM THE SCORING RUBRIC THAT FACULTY USE FOR GRADING AS IT APPEARS IN THE LMS.

Having a standardized course in place containing consistent assignments and rubrics aligned to learning outcomes establishes the necessary framework for collecting student learning data from the LMS.

Collecting Learning Data Directly from the LMS

The system for data collection from the LMS was developed under the following parameters. The system needed to:

- Automatically collect and store rubric scores as faculty assessed (graded) student work.
- Store rubric scores for every graded assignment and from each rubric criteria (vs. only storing one overall final assignment score that the student earned).
- Collect raw scores for each rubric criteria prior to any faculty grade deductions for late work.

It is critical that assignment scores for each student are stored at the specific rubric criteria level. This way, when creating assessment reports, certain criteria can be eliminated when they are not pertinent to the outcome being assessed. For example, if an outcome is being assessed on making ethical decisions, and the assignment rubric contains criteria on not only ethical decision making, but on writing skills as well, the data pertaining to the writing skills can be eliminated from the assessment reporting so that only the data on ethical decision making is included when assessment reports are created.

Initially, the university contracted with an outside vendor that partnered with the university's LMS provider to collect and compile learning data from the LMS. Later, the university switched to a different LMS, and the new LMS provider agreed to create an in-house solution that could provide the university student learning data at the level of detail it needed. Every six months the university's business intelligence unit uses representational state transfer (REST) application program interface (API) services to request a "GET" operation from the university's LMS provider. The LMS provider then gives the university XML documents that are formatted into tables with the following information: student ID, course ID, assignment ID, program of study in which the student is enrolled, and the rubric scores the student earned on each criterion for the assignment. After the XML documents are received, the university's institutional research unit performs the necessary calculations and prepares learning outcome reports. The reports are then distributed to the program chairs and faculty for discussion and analysis.

Process for the Learning Assessment Cycle

The university provides program chairs and faculty members with student learning reports every six months, in the fall and spring. The general process that the university follows begins and ends with faculty involvement. It is as follows:

1. For each program outcome, program chairs and faculty members identify between two and four assignments that, when completed by students, will provide direct evidence of student learning. Program chairs submit the selected assignments for each outcome on an assessment plan, as shown in Figure 4.

#	Program Outcome	Mapped Assignments
1	Apply statistical skills and quantitative reasoning to the critical evaluation of quantitative information.	CRJ330 – Module 8 Portfolio Project CRJ330 – Module 6 Critical Thinking Assignment
2	Describe the roles, functions, and impacts of an effective criminal justice system.	CRJ300 – Module 8 Portfolio Project CRJ310 – Module 8 Portfolio Project CRJ480 – Module 5 Critical Thinking Assignment
3	Examine ethical standards and issues in criminal justice processes and in professional decision making.	CRJ310 – Module 5 Critical Thinking Assignment PBS400 – Module 8 Portfolio Project CRJ440 – Module 6 Critical Thinking Assignment CRJ480 – Module 3 Critical Thinking Assignment

FIGURE 4. AN EXCERPT FROM AN ASSESSMENT PLAN SHOWING WHICH ASSIGNMENTS WILL BE USED TO ASSESS EACH PROGRAM OUTCOME.

2. The chosen assignments are coded, or tagged, in the LMS. Once tagged, the system is triggered to collect and store the scores on the selected assignments.
3. The scores are harvested from the LMS every six months for reporting. Scores are placed into one of four categories: meets expectation, approaches expectation, below expectation, or limited evidence. Once the scores are categorized, the percentage of students who met expectations can be determined. At CSU-Global the programmatic assessment goals for undergraduate students are that 80% of students in the program score *meets expectation* on the rubric. For graduate students, the goal is that 85% of students to score *meets expectation* on the rubric.
4. A student learning report is produced each fall and spring and distributed to the program chairs and faculty. The report contains student learning data in an easy-to-read format so that program chairs and faculty can readily see whether or not goals have been met. It also provides other useful information, such as how many assessments were collected that can serve as a catalyst for discussion and analysis. See Figures 5 and 6 for report excerpts.

Program Outcome	Meets Expectations		Approaches Expectations		Below Expectations		Limited Evidence		Average Score	Total Student Count	Total Number of Assessments
	Student Count	Percent	Student Count	Percent	Student Count	Percent	Student Count	Percent			
1	34	70.8%	12	25.0%	2	4.2%	0	0.0%	0.88	48	91
2	119	83.8%	9	6.3%	6	4.2%	8	5.6%	0.92	142	179
3	110	88.0%	5	4.0%	3	2.4%	7	5.6%	0.94	125	161
4	96	88.9%	11	10.2%	1	0.9%	0	0.0%	0.95	108	135
5	18	100.0%	0	0.0%	0	0.0%	0	0.0%	1.00	18	18
6	29	76.3%	5	13.2%	4	10.5%	0	0.0%	0.90	38	38

FIGURE 5. EXCERPT FROM THE SUMMARY AREA OF A STUDENT LEARNING REPORT FROM THE BACHELOR OF SCIENCE IN CRIMINAL JUSTICE PROGRAM. FACULTY CAN SEE THAT THE GOAL OF 80% WAS NOT MET ON TWO OUT OF THE SIX OUTCOMES.

Program Outcome	Assessment Title	Zeros	Number of Assessments	Rubric Criterion	Overall Score
BS Criminal Justice Program Outcome 1	CRJ330 Module 6 Critical Thinking Assignment	3	45	Requirements	0.85
				Content	0.88
				Critical Analysis	0.79
				Organization, Grammar and Style	0.93
				APA Formatting	0.92
	CRJ330 Module 8 Portfolio Project	2	46	Critical Analysis	0.85
				Leadership	0.99
				Application of Source Material	0.90
				Content	0.84
				Requirements	0.86
				Technology	0.99
				Ethics	0.99
				Synthesis and Evaluation	0.88
				Organization	0.97
Sources	0.84				
APA Formatting	0.95				

FIGURE 6. EXCERPT FROM A MORE DETAILED AREA OF THE REPORT SHOWING AVERAGE SCORES STUDENTS RECEIVED ON EACH RUBRIC CRITERION. THIS LEVEL OF DETAIL CAN PROVIDE INSIGHTS FOR FACULTY WHO WANT TO SEE AREAS ON THE ASSIGNMENT WHERE STUDENTS ARE STRUGGLING.

5. The program chairs and faculty review and discuss the data from the student learning report. The report provides the basis for conversations about what is happening in the courses, what is working, what students seem to struggle with, and what improvements they recommend making.
6. Improvement recommendations that stem from the collaborative discussions are implemented, and the cycle is repeated.

All data, reports, analysis meeting notes, decisions, and action items are tracked in an assessment management system (AMS). The AMS houses historical discussions and decisions as well as tracks the status of action items.

Conclusion

The model that CSU-Global has put in place is efficient, scalable, and comprehensive. It is efficient because assessment of learning is integrated into what faculty members already do (evaluate assignments). It is scalable because, regardless of enrollment growth, data from every student who is enrolled in the program is seamlessly collected and compiled for analysis every six months. Finally, it is comprehensive because learning data is provided for every program outcome in every program in six-month reporting cycles. When learning goals are not met, program chairs and faculty can determine what curricular and instructional improvements are necessary and implement them in a timely manner. Once improvements are implemented, new learning reports are produced in six month intervals so that program chairs and faculty can see if the improvements had any effect on the student learning. Utilization of the technological tools in the LMS has resulted in a system in which all faculty members participate in assessment, all students are included in the data set, all program outcomes are assessed twice per year, and intentional curricular improvements can be implemented expeditiously to ultimately benefit the student learning experience.

Karen DiGiacomo is the Director of Assessment at Colorado State University-Global Campus. She can be reached at karen.digiacom@csuglobal.edu.

Technology and Assessment: A Focused Comparison of Three University Business Schools and their use of Technology in the Assessment Process

By Jennifer Flanagan, Mary Anne Doty, and Courtney Kernek

“Nothing that we do to, or for, our students is more important than our assessment of their work and the feedback we give them on it. The results of our assessment influence our students for the rest of their lives and careers – fine if we get it right, but unthinkable if we get it wrong.” Race, Brown and Smith (2005)

Introduction

As technologies in everyday society change, the changes to educational techniques follow suit. The use of technology in assessment has both positives and negatives. Some of the benefits include clarifying criteria and Student Learning Objectives (SLOs), more student engagement, more faculty buy-in, increased flexibility for both students and faculty to access the software that provides accurate assessment information, and the availability of statistical reporting methods to both analyze the results and make better, more comparable decisions on curriculum changes. As with any tool, there are some negatives, including the expense of technology adoption, acclimation to the technology, inaccurate or inappropriate use of the technology, hardware and software difficulties, issues with anonymity and accuracy of the user results (i.e. cheating, misleading information), and resistance of faculty to learn and use the new technologies (Davies, 2011).

Technology is discussed in the context of data collection and comparison (particularly proprietary instruments such as the College Board’s ASQ (Admitted Student Questionnaire) and others (CSQX, NSSE that measure and compare incoming students); or those that measure student engagement (College Student Experiences Questionnaire), satisfaction, or alumni impressions (Middaugh, 2010). Attention is also given to the use of dashboards that measure key performance indicators, whether purchased as software or developed in-house. However, there is little published information on faculty experiences with technology to measure and improve student learning outcomes in higher education. This paper has two areas of focus: the use of technology for assessment and the use of technology for reporting, planning and disseminating information. The authors describe different technologies used in comparable universities with similar accreditation standards, including gathering, assessing, analyzing, and disseminating the data.

Table 1: A Comparison of Three University Business Programs

University	TAMUC	SOSU	TWU
# Students	Over 12,000	Over 3,000	Over 15,000
Size of Business Faculty	80 full and part time	20 full and part time	59 full and part time
# of Degrees Offered	7 Undergraduate 6 Graduate	7 Undergraduate 1 Graduate	6 Undergraduate 4 Graduate
University/Business Accreditation	SACS/AACSB	HLC/AACSB	SACS/ ACBSP

TAMUC

At Texas A&M University- Commerce (TAMUC), the College of Business has used its online learning platform to archive assignments that can be used to assess learning objectives. In the past, faculty have missed timeline targets to assess an objective during a specific semester. Faculty moving to other universities might not have saved data needed for assessment. Capturing “performance” data, such as class presentations, role play or other live activities was problematic, whether in face-to-face or online classes. When assessment artifacts are consistently archived in the Learning Management System (LMS), assessment can be evaluated immediately or the artifacts can be sampled later to fill in gaps in longitudinal comparisons.

Additionally, the college has developed an in-house comprehensive assessment of core content areas. This assessment replaced a for-profit test that was not specific enough for prescriptive use of results. The exam is delivered online to all modes: face-to-face, hybrid and online.

Benefits. The most important benefit to this approach has been the ability to access historic performance, even when faculty have left the university, or a scheduled assessment did not occur. Panels can evaluate previous years’ work and compare them to more recent results. Faculty also can customize a common core test that addresses program-specific student learning outcomes. All students can take the online comprehensive test, regardless of whether or not they are present on campus.

Challenges. If there is a lack of standardization in syllabi and assignments given in the class chosen for the sample, archiving on the LMS will not allow for comparison. In addition, instructors need to align the assignment with the SLO being measured. Unless the instructions specifically address an issue, it likely will not be included in the students’ work. A second concern is that the integrity of the comprehensive test is only as good as the LMS allows. There is always the potential for students to cheat or game the system with online testing absent an authentication process. Finally, the ability to analyze in-house comprehensive exams is only as robust as the LMS. A platform that does not allow segmentation by objectives will have the same problems as the commercial exam, although at a fraction of the cost.

SOSU

The School of Business at Southeast Oklahoma State University (SOSU) relies on technology to acquire and analyze student learning objectives through comprehensive examinations, capstone simulations and surveys of graduating students and interns (at undergraduate and MBA levels).

Benefits. The Major Field Test in Business has allowed a relatively small program to measure core content areas of knowledge and compare with a large national population. The Capstone Simulation, Comp XM, measures students’ abilities to apply content areas of knowledge in a realistic situation. Both tests have been used to tie outcomes to learning objectives and adjust curriculum and pedagogy when needed. Faculty support the use of these measures and welcome the feedback.

Challenges. Surveys of graduating students and interns were embedded in the course software (Blackboard), but the information was deemed to be redundant with other measures. Results did not yield many actionable recommendations, so the surveys will be discontinued at the end of the current academic year.

TWU

Texas Woman's University's (TWU) assessment is broken down by two distinct assessment levels: University and School of Management. At the university level, TWU uses its institutional research data management system to create a stratified random sample of around 8-10 percent of students enrolled in core courses. Emails are sent to all core faculty whose students are included in the sample, advising them which objectives being assessed that year, which students are selected, where online guidance is available, and how to set up assignment profiles and upload artifacts to CASSIE, an internal assessment management system. Faculty create assignment profiles that indicate what instructions students were given, as well as keys or any other information required for assessment. Three assessment criteria are also selected during this process. If students stop attending or fail to complete an assignment, those students are not evaluated. The artifacts are rated and logged into CASSIE for analysis.

At the school level, though, data from core courses are pulled and submitted to the assessment committee. Most of the data supplied are in paper format via email. There is no formal software or method of analysis in place; however, the information that is collected is useful in identifying student growth and comparisons to other schools in the nation. There is no formal process scheduled to take a pre- and post-test through Peregrine enterprise software to assess growth throughout the programs.

Benefits. The assessment office provides a uniform procedure with high faculty buy-in. The process is well-defined and expectations are expressed early in faculty development. Much of the burden of assessment is removed from faculty since students, not entire courses, are randomly chosen for assessment. At the school level, the lack of technology can help with faculty buy-in when there is a fear of using new software programs in the assessment process.

Challenges. University-level assessment has had issues with acclimation of faculty to the software, although that is easily overcome with training. However, there is a disconnect between the assessment methods of the school and the University that creates confusion, misunderstanding, and lack of faculty support. The school's assessment process must change as the switch to AACSB accreditation standards occurs.

Technology Use for Results, Planning and Dissemination

TAMUC

In 2016, the university began collecting annual program plans and results on a shared drive that allows access by report authors and multiple levels of administrators. A new template was developed for all academic and support programs within the university. Previously, Institutional Effectiveness (IE) Plans and Results were paper-based, and required multiple levels of review. Copies of the signed documents were filed in relevant offices across campus (academic departments, Deans' offices, Provost's office, and the Office of Institutional Effectiveness). Although the College of Business opted to combine assessment for University and College accreditation, every year approximately thirteen IE Plans and an equal number of IE Results are generated. The shared drive allows all documents to reside in one place, regardless of where each document is in the approval process.

Benefits. IE Plans and Results are less likely to be lost as they travel through the review process. Faculty authors can compare current Plans/Results with previous years, even when they were not responsible for writing the older documents. Storing on the shared drive eliminates the need for multiple copies to be stored in multiple offices.

Challenges. Faculty authors and administrators were required to learn the naming protocol to identify the correct document for approval and comments. The new template had to fit many different types of assessments for programs

in arts, sciences, business, education and others. The trade-off for a robust template means that some programs are a better fit than others.

SOSU

Reporting has been faculty-driven and relies on a paper format, although information has been archived at the college level using Sedona, an educational database software program. SOSU's School of Business is small and turnover is low. Information is freely shared and is easily available. There is no motivation to change a communication system that works well, regardless of any benefits or challenges such a move would generate.

TWU

At the University level, data are collected through CASSIE and reports are generated and disseminated to the appropriate administrative personnel and assessment team. Key faculty members and assessment personnel meet to review the results and make plans for closing the loop.

At the School of Management level, there is no set system for these processes. Data from core courses are pulled and submitted to the assessment committee. This information is compared against SLO's set by the school and reports are generated accordingly, both internally and externally. All of this is done through email and pulling assessment data through Peregrine.

Benefits. At the university level, faculty have easy access to CASSIE and the reports from the data are sent out via email and easily accessible. At the school level, information is not confined by the restrictions of a software program or the ability of key faculty to use and understand the software.

Challenges. Technology in assessment is not uniformly implemented throughout the university across colleges. Although each college can tailor assessment to meet the individual needs of their accrediting bodies, the gathering, assessing, and dissemination of data can vary depending on the college, making comparison of data difficult. Additionally, disseminating information via email can be an issue. Faculty can overlook key emails with important information regarding the assessment results. This problem is addressed by holding meetings to discuss results. As the school progresses towards and gains AACSB accreditation, a more formalized plan of assessment will be implemented. The accreditation processes for becoming AACSB accredited will require new SLO's, requiring a system that links student outcomes to SLOs. The Peregrine test does not give enough information to tie goals to learning outcomes, as AACSB looks for internal SLO measures, but does give a good comparison to how students perform compared to other schools.

Conclusions

The increasing use of technology in the assessment processes in higher education is inevitable, but can be a double-edged sword that can make or break an assessment process. The use of technology is driven by the size and complexity of a program, accreditation needs, and the assessment culture of the faculty. Technology is a tool that can be customized to accommodate specific needs.

Finally, the sharing of successes and challenges in technology implementation among business schools has been very helpful as each program adapts to new accreditation standards. As assessment programs mature, they benefit from the learning curve of other institutions that may have different ways of assessing progress.

References

- Davies, S. (2011). Effective assessment in a digital age: A guide to technology-enhanced assessment and feedback. *Joint Information Systems Committee*.
https://www.webarchive.org.uk/wayback/archive/20140614115719/http://www.jisc.ac.uk/media/documents/programmes/elearning/digiassass_eada.pdf
- Race, P., Brown, S. and Smith, B. (2005) 500 Tips on Assessment. Abingdon: RoutledgeFalmer
- Middaugh, Michael F. (2010), *Planning and Assessment in Higher Education: Demonstrating Institutional Effectiveness*. Jossey-Bass Publishing.

Jennifer Flanagan, Ph.D. is an Assistant Professor of Management and Academic Assessment Fellow at Texas Women's University. She may be reached at jltflanagan@twu.edu.

Mary Anne Doty is at Texas A&M University

Courtney Kernek is at Southeastern Oklahoma State University

Mapping the Curriculum: A Low-tech Model for Synthesizing Assessments and Improving Learning at Multiple Levels

By Jennifer M. Harrison & Vickie Williams

Introduction

Survey results published in the Winter 2017 issue of *Intersection* suggest that curriculum mapping is of great interest to faculty and staff working in assessment, regardless of their level of expertise (Gulliford, O'Brien, Curtis, & Peagler, 2017, p. 33). Fortunately, curriculum mapping is strategic process that is easy to achieve through low-tech means—in our case, using Excel. Our systematic model—which we presented on at the 2016 conference for the Association for Assessment of Learning in Higher Education—enables institutions to synthesize authentic assessment measures and use them to improve learning at multiple levels.

Provosts across the country identify classroom-level direct measures as valued assessment approaches, yet connecting and applying the resulting data can be challenging. Moreover, universities struggle to align student learning outcomes at each level—only 27% of doctoral universities report successful program-to-institutional outcomes alignment, and across all institutional classifications, only 42% of programs have aligned their outcomes to institutional outcomes (Kuh, et al, 2014, p. 8).

However, curriculum mapping with vertical alignment across levels empowers divisions, programs, and faculty to connect learning opportunities and results to build an institution-wide view of student learning. At the University of Maryland, Baltimore County (UMBC), a research university, vertically aligned curriculum mapping has become a vital process that engages faculty in learning assessment, creates connections across learning experiences, and makes it easier to use evidence of student learning at each level.

In this essay, we share what we've learned about curriculum mapping at UMBC. First we define the basic elements of curriculum mapping, then we explore vertical alignment, which empowers curriculum mapping to delineate clear connections from the institutional mission to a specific assignment. Finally, we examine how curriculum maps can help faculty close the loop, using direct-measure evidence to analyze results at each level.

What is Curriculum Mapping?

A curriculum map diagrams relationships between learning outcomes and learning opportunities to show how the curriculum components work together to help learners achieve the outcomes. Curriculum mapping helps institutions and programs identify common ground, so faculty can share student learning successes, challenges, and ways to collaborate on interventions. Maps are flexible enough to be developed for an entire institution, college, or division; for degree and general education programs; or for courses.

Curriculum maps typically have three components:

1. Student Learning Outcomes
2. Student Learning Opportunities
3. A key to define intersections between outcomes and opportunities

Two additional elements make our curriculum map template more useful. Double boxes denote where key assessments will take place. To illustrate connections across institutional-, program-, and course-level outcomes, we added a fifth element to our curriculum maps: vertical alignment.

Figure 1 displays a curriculum map matrix that we created in Excel. Learning outcomes appear in the rows and learning opportunities in the columns. The rows are designed to present program-level outcomes, including explicit vertical alignment from program- to institutional-level outcomes. The columns denote core courses, electives, and co-curricular learning opportunities.

Figure 1. Curriculum map template

UMBC Curriculum Map Template for Programs

UMBC
AN HONORS UNIVERSITY IN MARYLAND

Core Courses		Electives				Co-Curricular Learning					
100...											
Add your core course numbers above		Note electives or other requirements				Include internships, service learning, living learning communities, undergraduate research, etc.					

Your Program's Curriculum Map

Your Program's Student Learning Outcomes (SLOs)

1. Add your program student learning outcomes below. 2. Align and add your institutional-level learning outcomes. 3. Add courses and co-curricular learning opportunities to the columns. 4. Use the key below to define the intersections between SLOs and learning opportunities.

Program-Level SLOs	Aligned Institutional-Level SLOs																
1																	
2																	
3																	
4																	
5																	

Key: In this course, students ...

Do not focus on this outcome	
Gain fundamental knowledge and skills in this outcome	1
Practice and build their learning in this outcome	2
Complicate and refine their learning in this outcome	3
Demonstrate mastery of this learning outcome	4
Double lines indicate formal assessments	

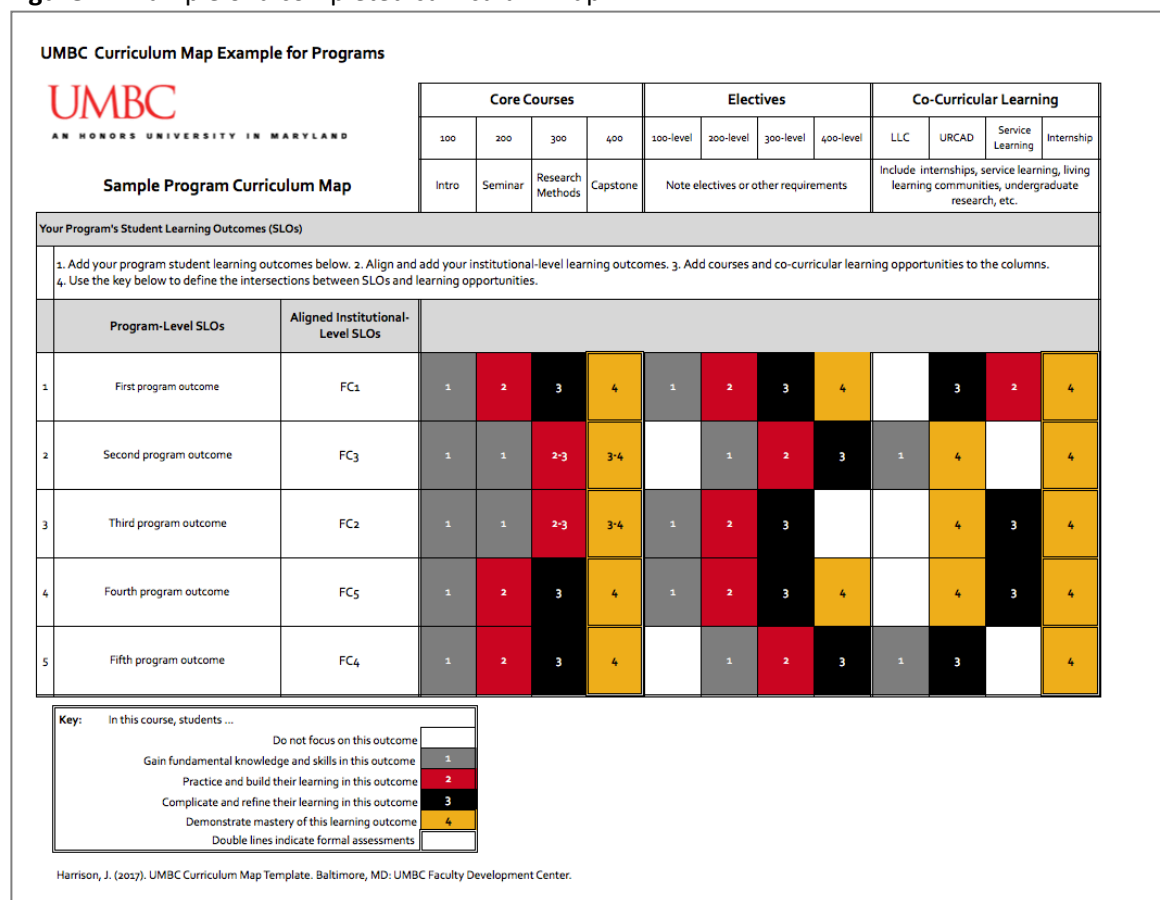
Harrison, J. (2017). UMBC Curriculum Map Template. Baltimore, MD: UMBC Faculty Development Center.

The curriculum map template above helps faculty to illustrate how programs empower students to achieve learning outcomes across a range of learning opportunities.

The matrix's key defines intersections between outcomes and opportunities, making visible how a program builds student learning from the point where students gain foundational ideas related to an outcome to the point where they demonstrate mastery of that outcome. The map captures the learning progression across a program, fostering clarity (or discussions to clarify) about where (and to what degree) students will develop each outcome. Thus, a curriculum map becomes a tool for discussing, analyzing, and improving a program. Additionally, the map can become a tool to guide students as they work to transfer skills from course to course and synthesize their learning. Advisors and mentors can use the map to show students what we want them to learn and be able to do at each stage of a program, contributing to their metacognitive development.

A typical program curriculum map (see figure 2) shows how faculty scaffold student learning across a series of courses—sometimes culminating in a portfolio, capstone, internship, service learning, or other experience. When faculty assess student learning at the upper levels and analyze the results, the map can help them to reflect on ways to close the loop. The visual simplicity makes it easy to find gaps in learning. For example, if capstone results suggest that students succeed in critical thinking but struggle with information literacy, faculty can collaboratively review the curriculum map to identify potential interventions to improve information literacy skills.


Figure 2. Example of a completed curriculum map



This example curriculum map shows how faculty scaffold student learning, enabling students to achieve the learning outcomes through core courses, electives, and co-curricular learning opportunities.

In contrast to a program curriculum map that scaffolds learning from the beginning to the end of a program, some programs require a different approach. General education programs, for example, connect student learning across disciplines, distribution, and outcomes. Undergraduate support programs, like UMBC’s Office of Undergraduate Education (OUE), also require a different approach, since they offer broad undergraduate support for new students just beginning their academic careers. The OUE map in figure 3 shows how the program supports students, particularly through high-impact practices, as they transition into their degree and study plans, preparing for disciplinary study. Students build their skills in the First-Year Seminars (FYS), the Introduction to an Honors University (IHU) courses, the Transfer Seminars (TRS), and/or the Collegiate Success Institute (CSI). Additionally, they learn through co-curricular programs like the New Student Book Experience (NSBE), and the Discovery Scholars Living Learning Community. Later in their studies, students can demonstrate higher-level outcomes through original research at the Undergraduate Research Creative Award Day (URCAD) and the Undergraduate Research Awards (URA).

Figure 3. Example of a curriculum map for the Office of Undergraduate Education

		Curricular Learning				Co-Curricular Learning			
		OUE courses				Other OUE Learning Opportunities			
Office of Undergraduate Education Curriculum Map									
Program-Level SLOs	Aligned Institutional-Level SLOs	FYS	IHU	TRS	CSI	Discovery	NSBE	URCAD	URA
1 Written & Oral Communication	FC ₁	1-2	1-2	2-3	1-2	1-2	1-2	2-3	2-4
2 Scientific & Quantitative Reasoning	FC ₂	1-2		2-3	1-2			2-3	2-4
3 Critical Analysis & Reasoning	FC ₃	1-2	1-2	2	1-2	1-2	1-2	2-3	2-4
4 Technological Competency	FC ₄	1-2	1-2	1-2	1-2	1-2		2-3	2-4
5 Information Literacy	FC ₅	1-2	1-2	1-2			2-3	2-3	2-4
6 Resilience: Assess and develop knowledge, skills, attitudes, and habits	NA	1-2	1-2	1-2	1-2	1-2		2-3	2-3
7 Integrative learning: experience and reflect on future application of skills	All FCs+	1-2	1-2	1-2	1-2	1-2		2-3	2-3

Key:	In this course, students ...
	Do not focus on this outcome
1	Gain fundamental knowledge and skills in this outcome
2	Practice and build their learning in this outcome
3	Complicate and refine their learning in this outcome
4	Demonstrate mastery of this learning outcome
	Double lines indicate formal assessments

The curriculum map above illustrates how the Office of Undergraduate Education builds students' skills in specific learning outcomes—particularly UMBC's institutional-level learning outcomes, the Functional Competencies (FCs)—and empowers them to apply these skills to their disciplines.

Why Is Vertical Alignment Central to Curriculum Mapping?

Vertical alignment helps us to illustrate common ground across individual learning opportunities, since many audiences want to know how well students are learning at the institutional level. Student learning typically happens at the assignment level, so we need a way to gather the results at each level, and then synthesize, triangulate, and apply them to improving student learning. We make this possible by aligning each level of learning from institution to program to course to assignment, where we can measure directly. Moreover, the alignment process allows the assignment-level decision-making to reside in the course and remain a part of the academic freedom that most faculty value.

Like most universities, UMBC has an explicit mission statement that describes our goals—our central mission is to help students learn. To clarify exactly what we want our graduates to know and be able to do, we operationalize our mission through institutional-level learning outcomes (UMBC's Functional Competencies, or FCs). Each program contributes to helping students achieve these outcomes through discipline-focused program outcomes aligned to the institutional outcomes. Likewise, course outcomes align to program outcomes and assignment criteria align to course outcomes. As a result, assignment outcomes are embedded in the course outcomes, the course outcomes align to the program, the program aligns to the institutional goals, and every level contributes to the UMBC mission. Alignment clarifies relationships between direct measures and other data, so we can aggregate and close the loop at each level.

How Can Curriculum Maps Contribute to Closing the Loop?

Student learning develops at the assignment and course levels as students apply concepts and skills to specific challenges and demonstrate that they have achieved the outcomes. Direct measures, like rubrics and tests, help faculty analyze the results and determine whether students have learned effectively or whether interventions are needed. Mapping outcomes to the assignment level makes closing the loop easier, since data can be aggregated at the higher levels to gain a clearer view of how well students learned in the course, program, and institution.

We'll demonstrate how this works using a reflection essay assignment from a First-Year Seminar called FYS 102: Ethics, Diversity, and Social Justice in the Context of Schools. For this assignment, students reflect on their service learning placement experience in response to questions that echo course learning outcomes. To assess the essays, we use a descriptive rubric that delineates criteria for direct, measurable, student-oriented evidence in the rows with levels of achievement in the columns. Like the curriculum maps discussed above, the rubric maps the specific outcomes for this assignment horizontally. We aligned the assignment to the course outcomes explicitly in each rubric row and include them below to illustrate the multiple alignments.

Figure 4. First-Year Seminar Service-Learning Reflection Rubric

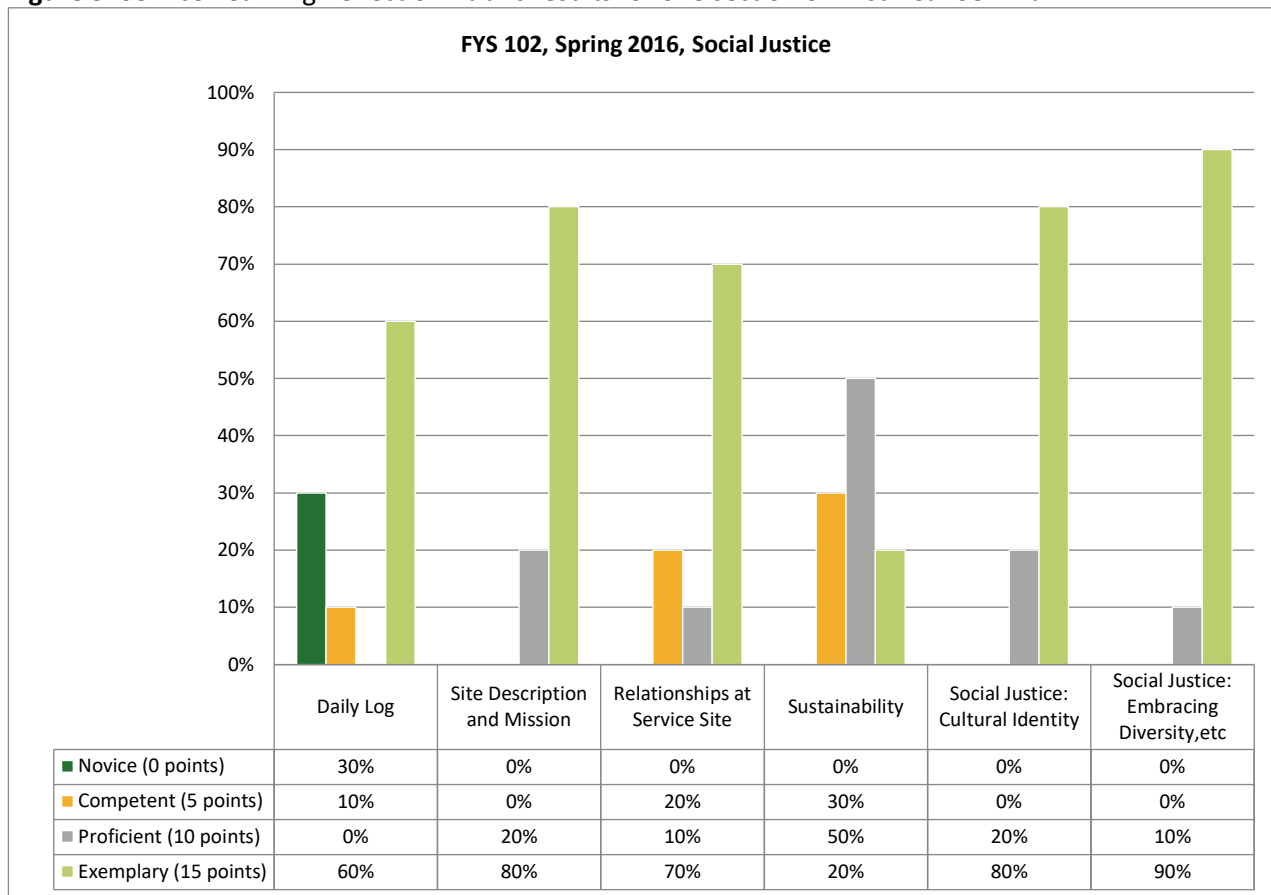
	Novice	Competent	Proficient	Exemplary
Daily Log FYS 102 Course SLO 1 FYS Program SLO 1 Institutional FC 1	0 Points Includes no daily logs	5 Points Includes less than 50% of logs for each visit	10 Points Includes all daily logs with meaningful entries that describe the experiences	15 Points Includes all daily logs with meaningful entries that fully describe the depth and breadth of experiences and relationships
Site Description and Mission FYS 102 Course SLO 1 FYS Program SLO 1 Institutional FC 1	0 Points Identifies location of service site but does not describe the operations or mission	5 Points Describes the location and operations of the site, but excludes the mission	10 Points Describes the location, operations, and mission of service site	15 Points Describes the location, operations, mission of service site with connections to social justice, & how your personal contribution serves the mission and provides advocacy
Relationships at Service Site FYS 102 Course SLO 2 FYS Program SLO 3 Institutional FC 3	0 Points Does not describe relationships built at service site	5 Points Describes relationships at service site superficially	10 Points Describes relationships at service site in depth and with breadth	15 Points Describes relationships at service site in depth and with breadth, and discusses how these relationships impacted you personally and how they impacted the site's mission
Sustainability & Other Challenging Issues FYS 102 Course SLOs 3-5 FYS Program SLO 5 Institutional FC 5	0 Points Does not address sustainability or any challenges at the site	5 Points Addresses sustainability or other challenges, but does not propose any solutions	10 Points Addresses both sustainability & other challenges, and proposes possible solution(s)	15 Points Addresses both sustainability & other challenges, and proposes possible solution(s) directly linked to social justice

A portion of the FYS 102 Service-Learning Reflection Rubric appears above. Each rubric row assesses student learning in the assignment. These criteria align to course student learning outcomes (SLO), program SLOs, institutional-level outcomes, and the UMBC Functional Competencies (FCs) as noted in red text above.

As the rubric detail shows, students must demonstrate communication (FC1), critical reasoning (FC3), and information literacy (FC5) skills in this essay assignment. Since the rubric aligns the assignment to course outcomes, course to program outcomes, and program to institutional outcomes, we can use the assignment results at each level. Since the rubric builds common ground among FYS 102 and other classes, the data can be aggregated with results from other courses for views of program- and institutional-level learning. For example, we can analyze these results with data from FYS colleagues, identify shared learning challenges, and collaborate to improve student learning. At the program level, FYS leaders can aggregate learning data across the seminars to gain a program-level view of student learning and contribute to data aggregations at the institutional level.

To clarify, let's explore how this looks with a small sample of data. Figure 5 presents rubric results from one section of FYS 102 in Spring 2016. We'll look more closely at Sustainability, since we expected better results in this area. While 20% of students showed exemplary learning and 50% showed proficient learning, we're concerned about the 30% of students who demonstrated competent, or C-level, learning. We want our students to demonstrate proficiency in this area, since it measures information literacy skills, and students will face challenges in evaluating and synthesizing resources in future classes.

Figure 5. Service-Learning Reflection Rubric results for one section of First-Year Seminar



At the course level, we can use the results to triangulate these data with other direct and indirect measures, review student progress across a series of information-literacy-focused assignments, or compare to data from other sections.

To strengthen the analysis, we triangulated the service-learning reflection results with data from two other signature class assignments, case studies and problem-solving resolutions, also assessed by scoring rubrics. Like the service-learning reflection, these authentic assessments align to course objectives involving the evaluation of educational policies and practices and whether they narrow equity gaps and promote social justice in schools. Multiple assessment approaches are critical for goals aimed at instilling attitudes and values because direct evidence of these goals is often difficult to collect (Suskie, 2009). In all three performance assessments, students identify, evaluate, and interpret information resources informed by their experiences to propose social justice reforms.

Performance data from all three assignments (service-learning reflection, case study, and problem-solving resolutions) confirm that students successfully learn how to evaluate multiple sources of information to synthesize viable social justice solutions, but are less successful when evaluating how these resolutions are impacted by sustainability issues. Sustainability results on the scoring rubric helped us recognize this weakness in the information literacy FC.

Based on the above triangulation and comments in student self-evaluations on the same outcomes, we implemented interventions to raise students' scores on the sustainability indicator, including analyzing sustainability issues earlier in the course during problem-solving and case study discussions. Additionally, we attended two 16-hour workshops to learn how to teach this concept more effectively. We are considering other interventions for future semesters, such as a guest lecturer who is an expert in this area.

But the data can do more for us because of our curriculum map and vertical alignments. Are these students alone in their struggles with information literacy? When we compare direct measure evidence across First-Year Seminars, we find that many students struggle with this skill. So we have the opportunity to collaborate with colleagues on program-wide interventions to improve student learning in this area. Likewise, data can be rolled up to inform institutional-level assessment, where additional resources may be available to address common challenges.

At the institutional level, our data can be synthesized with hundreds of other measures across the institution. Without mapping alignments across the curriculum, we would lack this common ground, which enables faculty from any discipline to discuss shared learning successes and challenges and collaborate to create improvements. Our experiences with curriculum mapping at UMBC confirm the usefulness and flexibility of the curriculum map as a tool. More information about UMBC assessment is available on the UMBC Faculty Development Center's website at <http://fdc.umbc.edu/learning-assessment-at-umbc/>. Combined with vertical alignment, curriculum mapping helps us connect and apply authentic measures at multiple levels.

References

- Gulliford, M., O'Brien, L., Curtis, M., & Peagler, C. (2017). How faculty experience with assessment relates to views, values, and practice. *Intersection*, 1(3), 33-37.
- Harrison, J. (2017). *UMBC Curriculum Map Template*. Baltimore, MD: UMBC Faculty Development Center.
- Harrison, J. (2015). *Sample UMBC curriculum map*. Baltimore, MD: UMBC Faculty Development Center.
- Harrison, J. M., & Williams, V. (2016, June 2). Creating direct measures for a diverse division. Presented at Lilly International 2016, Evidence-Based Teaching and Learning Conference, Bethesda, MD.
- Harrison, J. M., & Williams, V. (2016, Dec 9). Embedding assessment in everyday practices. Presented at Middle States Commission on Higher Education Annual Conference 2016, Philadelphia, PA.
- Harrison, J. M., & Williams, V. (2016, October 17). Mapping common ground: Connecting curricular and co-curricular learning. Presented at The 2016 Assessment Institute in Indianapolis, IN. October 16-18 <http://assessmentinstitute.iupui.edu/>
- Harrison, J. M., & Williams, V. (2016, June 7). Mapping direct measures across a diverse division: An interactive session. Presented at the Association for the Assessment of Learning in Higher Education 2016 Conference, Assessing What We Value: A Focus on Student Learning, Milwaukee, MI. <http://www.aalhe.org/events/conference-schedule-2/?>
- Kuh, G. D., Jankowski, N., Ikenberry, S. O., & Kinzie, J. (2014). *Knowing what students know and can do: The current state of student learning outcomes assessment in U.S. colleges and universities*. Urbana, IL: University of Illinois and Indiana University, National Institute for Learning Outcomes Assessment (NILOA).
- Suskie, L. (2009). *Assessing student learning: A common sense guide*. 2d ed. San Francisco: Jossey Bass.
- Walvoord, Barbara E. (2004). *Assessment clear and simple: A practical guide for institutions, departments, and general education*. San Francisco: Jossey Bass, 2004.

Jennifer M. Harrison, Ph.D. is UMBC's Associate Director for Assessment in the Faculty Development Center and can be reached at jharrison@umbc.edu.

Vickie Williams, Ph.D. is the Director of Student Services for University System of Maryland, Baltimore County (UMBC) Department of Education and a faculty member in the First-Year Experience program. She can be reached at vwilli5@umbc.edu.

Maximizing Existing Technologies for Cross-Disciplinary General Education Assessment

By Lisa M. Snyder and Kelly McVeigh Stanley

Like all institutions across the U.S., public liberal arts colleges are facing a demand for increased accountability resulting in the need to collect, analyze and engage with evidence of student learning. General education, considered the core of a student's educational experience, is often at the center of discussions focused on student success and learning. Assessing general education is a persisting challenge for many institutions as the emphasis for this is most often the collection and evaluation of authentic student work collected from courses taken for college credit (Mclawhon & Phillips, 2013). Unlike the assessment practices that occur within the confines of a program, assessment of general education focuses on the degree to which general education learning outcomes are being met by all students, regardless of their major. Faculty from across the institution who teach courses that address a particular outcome are often involved in the assessment process and results are aggregated to present a collective snapshot of students' abilities (Suskie, 2013).

Fort Lewis College, a public liberal arts college in southwest Colorado, set a goal to assess critical thinking and problem solving across the disciplines through direct assessment of student work. Prior to this project, assessment of general education learning outcomes occurred within the individual programs in a variety of ways. To meet this goal, a process was designed to collect student writing samples from academic areas and have faculty from across the institution score papers from departments other than their own. By moving assessment out of the individual disciplines and connecting faculty across campus, the institution hoped the process would actively engage faculty in conversations regarding pedagogy, general education learning outcomes and assessment. A critical component in the assessment of student learning is the use of results to understand and improve the student experience. For this to occur, faculty must participate in and see the value of assessment and cross-discipline conversation (MacDonald, Williams, Lazowski, Horst, & Barron, 2014; Heinerichs, Bernotsky, & Danner, 2015).

This paper will detail the implementation of an outcomes-based assessment plan for general education and how existing technology was leveraged to create a more centralized, coherent assessment system. The authors will also discuss modifications that were made to improve the process.

Background

In 2014, Fort Lewis College began a new approach to assessing student learning in the general education curriculum. The Director of Assessment worked with the faculty-led Assessment Committee to develop the general education assessment plan. The Assessment Committee decided (a) the first two rounds of assessment would evaluate student performance on the critical thinking and problem-solving competencies, (b) scoring would be based on AAC&U's Critical Thinking and Problem Solving VALUE rubrics, and (c) the cross-disciplinary student artifacts collected would be senior seminar or capstone papers. This approach was suggested for several reasons. First, no cross-disciplinary course from which to take work samples for students who were all in the same place in their academic career existed. Second, critical thinking is included as an outcome for every program on campus; therefore, seniors should demonstrate this skill in their senior-level work. Finally, this would allow the Assessment Committee to improve on the assessment process while engaging in direct assessment of student learning.

Once the assessment plan was approved, the next step was to develop a process and identify resources and technology needed to carry out this project. At this time the institution did not have a formal assessment software product. After reviewing all available resources, the Director of eLearning, the Director of Assessment and the faculty chair of the Assessment Committee decided to maximize Canvas, the College's learning management system (LMS) to collect, store, manage the scoring process and disseminate assessment data.

Sampling Protocol

All faculty teaching capstone senior courses were asked to submit writing samples for each student/group within their course. As part of the submission process, faculty were asked to select a minimum of two criteria on the critical thinking rubric and one criterion on the problem solving rubric by which their students' assignments would be scored. Since the assignments submitted were not intentionally designed to be assessed with the VALUE rubrics, it was appropriate to allow faculty to choose which components of the rubrics they felt were met by their assignments. All criteria could be selected if appropriate. Cover sheets were submitted by each instructor with the written assignments. The cover sheets asked instructors to identify the number of students in the course, the number of samples they were submitting, their selected rubric components, and where their course fit into a sequence of courses (if appropriate). At the request of faculty, a protocol for de-identification was used to ensure anonymity. A stratified, random sample was used to select student work to be scored. Stratification was by area (i.e. Science, Arts and Humanities, Social Science, Business, Teacher Education) and by individuals and within areas by faculty to ensure that selected writing was not all from one instructor. Stratification was needed because submissions were unbalanced across disciplines, yet all disciplines needed to be represented. (Fort Lewis College Liberal Arts Core 2014-2015 Assessment Report, 2015). Of the 386 samples submitted, 123 were selected to be included in the assessment process. The distribution of student work samples by academic area can be seen in Figure 1.

Academic Area Participation for Fall 2014 Work Samples		
Academic Area	Total # Writing Samples	# Selected Samples
Arts and Humanities	10	10
Business	11	11
Social Science	47	15
Science	44	15
Academic Area Participation for Spring 2015 Work Samples		
Academic Area	Total # Writing Samples	# Selected Samples
Business	12	12
Social Science	112	20
Science	86	20

Figure 1. Distribution of Student Work Samples

Scoring Protocol

Scoring committees were made up of faculty volunteers representing departments across campus. Eleven faculty members scored in the first round and 10 scored in the second. Faculty felt strongly that they score within their academic area, and were divided into arts and humanities, social science, science, and business groups. Scorers agreed to attend a training and rubric norming session prior to scoring. The training focused on familiarizing the faculty with Canvas, including logging in to the system and using the grading and rubric functions. The goal of the rubric norming session was for scorers to develop a shared understanding of what was expected in terms of student performance based on the criteria in the two rubrics. For the purpose of inter-rater reliability analysis, each of the work samples was scored twice. Research shows multiple scorers who have participated in rubric norming sessions tend to produce acceptable levels of inter-rater agreement (Jonson & Svingby, 2007).

During the norming session, the Critical Thinking and Problem Solving VALUE rubrics were used to score the writing samples. Faculty discussed their scores for each criterion in both rubrics in an effort to align their scores and apply the rubric consistently. In addition to the value of norming for scoring reliability, the process of bringing faculty together from various disciplines across campus facilitated reflection and discourse around learning and teaching, “both of which are key to improving instruction regardless of the subject area being taught” (Baker, Cooperman, & Storandt, 2013, p. 49)

Technology Implementation

Microsoft Excel. Collecting, sampling, coding, scoring and analyzing student work from across multiple disciplines was a lofty goal. The hope was to utilize Canvas for the entire process, but this was not possible. Not all faculty providing work samples had planned to have their students submit the assignment in Canvas. Therefore, faculty members were asked to submit their student work samples in the form of a zipped file, to the Assessment Coordinator. The Assessment Coordinator pooled assignments across all courses/instructors; summary data on assignments was compiled and provided to the Assessment Committee Chair using a Microsoft Excel spreadsheet. The Assessment Committee Chair selected a stratified, random sample from the spreadsheet and gave the sample list back to the Assessment Coordinator for de-identification of samples. The Assessment Coordinator deleted names of both students and faculty. Each work sample with its corresponding cover sheet and assignment was coded with corresponding and non-identifying codes (i.e. no faculty initials were used) and saved as a file named with the code. This spreadsheet was provided to the Director of eLearning who then initiated the next step in the process, creating corresponding files in Canvas.

Canvas

Canvas is a highly-flexible platform designed to facilitate online learning. It includes robust assessment tools, such as an outcomes feature, a Speedgrader tool, and the ability to create online scoring rubrics. The challenge for the Director of eLearning was to identify how to structure the system so that each scorer would login and see only their assigned papers.

The first step was to enter the criteria from the Critical Thinking and Problem Solving VALUE rubrics into the Canvas outcomes area at the institution level and create a rubric for each outcome. The next step was to create a master course in Canvas that included one assignment with a link to the institution-level rubrics. The master course was then copied for each of the scorers. Scorers were then enrolled as instructors into their course. Unfortunately, uploading student papers into each of these courses could not be automated and was therefore a manual, repetitive and time-consuming process. A benefit of using Canvas was that each scorer received an email notification from Canvas to join their own assessment course and an email with a link to each student paper to be scored. Scorers logged in to read the student work online and use the interactive scoring rubric (i.e. Speedgrader) to evaluate. Scores for each rubric criteria were stored in the outcomes area at the institution-level.

Scorers were given 1 month to score. At the end of the scoring period, the Director of eLearning generated the outcomes report from Canvas, in the form of a .csv file, and submitted this to the Chair of the Assessment committee and the Director of Assessment for data analysis purposes. The outcomes report contained the student file name, title of the learning outcome (i.e. CritT1: Explanation of issues), outcome score (0-4) and scorer identification.

Successes and Opportunities for Improvement

The experience gained from the process of assessing student work across academic areas has greatly improved general education assessment at the institution. The primary goal of this project was to implement an outcomes-based assessment plan for general education, and to leverage existing technologies to assess critical thinking and problem solving in a centralized and coherent manner. To this end, the project was a success. Canvas, along with Microsoft Excel, provided the mechanisms for managing student work samples, facilitating scoring, and disseminating assessment results. The value of having faculty engaged in the assessment process was reiterated throughout this project.

This project was as much about creating a process as it was about identifying and improving student learning. Based on what was learned, several areas for improvement in the process were noted. While leveraging the institution's existing technologies allowed the project to achieve its goals, it was quickly understood this was not a sustainable solution for ongoing general education assessment. Documentation in the Assessment Committee's annual report about the time-intensive and manual process provided evidence and justification to enable the Assessment Director to request funding for an assessment software solution. In 2016 the institution began an implementation of Aqua by Taskstream to manage collecting and scoring student artifacts. With Canvas serving as the LMS for the institution, the focus is now on refining a process for integrating Canvas and Aqua. Additional feedback collected from faculty scorers identified the need for rubrics to be modified to fit institutional culture and that assignments used for general education assessment be intentionally aligned to scoring rubrics in order to increase the usefulness of assessment results.

General education is an essential component of a student's undergraduate experience and an important piece of an institution's assessment story. The iterative nature of assessment requires the examination of all aspects of the process. In this time of increased demand for accountability, institutions need to be agile in their assessment efforts. By leveraging existing technology, engaging faculty in all phases of the process, and making the investment in new assessment technologies, Fort Lewis College was able to respond to the need for an evidence-based approach to assessing learning while laying the groundwork for a sustainable general education assessment process.

Lisa M. Snyder, Ed.D is the Associate Vice President for Academic Affairs at Fort Lewis College. She can be reached at lmsnyder@fortlewis.edu

Kelly McVeigh Stanley, M.Ed. is the Director of Instructional Design and Technology Center for Creative Instruction & Technology, Delaware Technical Community College

References

- Baker, L., Cooperman, N., & Storandt, B. (2013). Reading, writing, "and" Rubrics: Norming process guides Teachers as they evaluate student work. *Journal of Staff Development*, 34(4), p46-49.
- Fort Lewis College. (2015). Liberal Arts Core 2014-2015 Assessment Report. Retrieved from <https://www.fortlewis.edu/assessment/LAC/MeetingMinutes.aspx.aspx>
- Heinerichs, S., Bernotsky, R.L., Danner, L.R. (2015). Guiding Principles to impact an institution-wide assessment initiative. *Research & Practice in Assessment*, 10, p60-64.
- Jonsson, A. & Svingby, G. (2007). The use of scoring rubrics: Reliability, validity, and educational consequences. *Educational Research Review*, (2) p130-144.
- Mclawhon, R. & Phillips, L.H. (2013). General education assessment plan: A four-tiered approach. *The Journal of General Education*. Pennsylvania State University Press, 62(2-3), p.204-221.
- Rhodes, T. (2009). *Assessing outcomes and improving achievement: Tips and tools for using the rubrics*. Washington, DC: Association of American Colleges and Universities.
- Suskie, L. (2013). Course vs program vs gen ed assessment. Accessed via <http://www.lindasuskie.com/apps/blog/show/33287598-course-vs-program-vs-gen-ed-assessment>.

An interview with Dr. Leah Matthews, Executive Director, Distance Education Accrediting Commission (DEAC)

Dr. Margareta Smith Knopik, Interviewer

General Information

The ***Distance Education Accrediting Commission (DEAC)*** is a private, nonprofit organization that operates as a national accreditor of institutions that primarily offer distance education. Founded in 1926, the DEAC is recognized by both the U.S. Department of Education and the Council for Higher Education Accreditation. In June 2017, DEAC received a five-year renewal of its recognition by the U.S. Department of Education. Accreditation by DEAC covers all distance education activities within an institution and it provides a single source of nationally recognized accreditation from the postsecondary education level through professional doctoral degree-granting institutions.

Dr. Leah Matthews, Executive Director of DEAC, provided the information for this article in June 2017. Dr. Matthews joined DEAC in 2013, having previously served as Vice President for Recognition Services at the Council for Higher Education Accreditation (CHEA), the national coordinating organization for higher education accrediting organizations. In that role, she managed the CHEA recognition process for 60 accreditors that provide regional, national and programmatic accreditation. Prior to working with CHEA, Dr. Matthews served nearly 12 years on the staff of the Accrediting Commission for Career Schools and Colleges. Prior to joining ACCSC, Dr. Matthews worked for five years as a civilian based at the U.S. Army Japan Headquarters in Zama, Japan, where she directed family support services and education programs for children and youth and where she directed the Army Family Action Plan advocating for postsecondary education opportunities for soldiers and families assigned to the U.S. Army Japan, Headquarters.

Questions about DEAC

Many schools are not familiar with DEAC with respect to membership, programs, and services it provides as compared to the mission and activities of the regional accreditation agencies. Would you provide a summary of DEAC and its member schools? Why would a school choose to be accredited by DEAC in addition to or instead of a regional?

Thank you for the opportunity to share information about the DEAC and its accreditation standards. DEAC-accredited schools provide a broad range of educational offerings, from postsecondary certificates to doctoral degree programs. The missions vary as well; they may serve to introduce a student to a new field or offer a program to enhance the skills of an existing professional. Programs may be offered on an asynchronous, purely remote-learning model or according to a synchronous, semester-based calendar using an online or hybrid model. They may have completely open admissions, or they may practice a selective admissions process. The student population among DEAC-accredited schools is still more varied. The vast majority of these students are working adults, balancing family, financial, and other constraints, for whom the traditional models of education do not work or have not worked. Their goals in returning to school are equally varied. For some, it is to expand existing professional skills; for others, it is to prepare for an entry-level position; for still others, it is to complete degree requirements, to qualify for a promotion, or to dip their toe into a new field—or it is because they have always wanted to study the Great Books, complete a divinity degree, explore unmanned vehicle technology or gain new knowledge on health and wellness. For all of them, the flexibility of learning models offered by DEAC-accredited schools provides them with an opportunity to extend their lives in ways that are otherwise not available to them because of money, time, or location. For some, geography or other challenges make the distance learning model their only opportunity to access accredited educational programs.

DEAC offers a unique accreditation model that is an effective assessment structure for educational programs that are often student-paced, where interaction between student and instructor is primarily initiated by the student and is typically more limited both in scope and frequency than in a traditional setting or in a distance education program where interaction between students and faculty is regular and substantive, as required by the U.S. Department of Education for Title IV participation. DEAC has robust standards for reviewing regular and substantive interactions for Title IV participating institutions, but it also values student-paced and/or asynchronous models that support an

individualized learning process that is responsive to both the preferences and the real-life constraints of its student population. Therefore, some distance education schools seek accreditation from DEAC because its standards align well with their unique missions and highly individualized learning outcomes for students.

In addition, DEAC is a place where experiments in new models of distance learning can undergo rigorous assessment. As these schools grow and mature in their educational offerings and institutional effectiveness, some pursue and achieve regional accreditation. Western Governors University is one example where a unique distance education delivery model was first vetted and accredited by DEAC, supporting the institution's long-term strategy of receiving regional accreditation.

While each accrediting body acknowledges that outcomes assessment is intended to demonstrate that students are learning, as well as provide a process for continuous improvement, there appears to be quite a lot of variation with respect to how each accreditor expects the assessment process to be structured and reported. What are the expectations of DEAC?

I believe that, for all accrediting organizations, including the DEAC, the essence of education is student achievement – the imparting of knowledge that enhances a student's life and advances their interests. DEAC's standards require comprehensive efforts on the part of its institutions to measure, evaluate, and improve program/student outcomes. The centrality of student achievement in evaluating institutional performance is introduced in DEAC's Accreditation Standard I, which requires that an institution's "mission reflects a commitment to providing quality distance educational offerings that meet the needs of students and relevant stakeholders."

DEAC's accreditation standards systematically require comprehensive and integrated efforts on the part of DEAC institutions to measure, evaluate, and improve program/student outcomes. For example, Standard II (Institutional Effectiveness) includes requirements for institutions to document their program/student outcome efforts with data, analytics, and reports. Standard III (Program Outcomes, Curricula, and Materials) requires additional detailed information on how program outcomes (1) are defined and measured, (2) guide development of curricular content and program design, and (3) "clearly communicate the knowledge, skills and abilities students will obtain upon completion of the educational offering."

Subsequent sections in both Standard III and Standard IV (Educational and Student Support Services) similarly address student outcomes in relation to an institution's curriculum, learning resources/technology, testing, student support services, and instructional support/academic progress assessment. An integrated approach permits a comprehensive response to DEAC's student achievement standard that requires each institution to (1) maintain systematic and ongoing processes for assessing student learning and achievement, (2) analyze data collected from those processes, (3) implement strategies to improve when appropriate, and (4) document that the results meet both internal (e.g., institution performance data) and appropriate external benchmarks. More specifically, DEAC expects accredited institutions to

... demonstrate and document in their Self-Evaluation Report through results of learning outcomes assessments that students achieve learning outcomes that are appropriate to its mission and to the rigor and depth of the degrees or certificates offered. The institution must also describe how its Outcomes Assessment Plan has contributed to the improvement of the institution over time and explain how the plan demonstrates that the institution is fulfilling its stated mission [T]he institution must demonstrate that it uses evidence of student learning to gauge the effectiveness of the educational practices and methodologies through its institutional effectiveness planning efforts. This data should also be used to identify and implement strategies for improving student learning. ... It is not enough for an institution to simply collect data. The institution must demonstrate that the evidence is analyzed and drives curricular and institutional improvements. [Excerpted from DEAC Guide for Self-Evaluation Report pp. 95-107.]

How and when do members report their findings and demonstrate to DEAC that they are using the data to make improvements?

As I described earlier, DEAC applies its accreditation standards in evaluating an institution's submission for initial accreditation or renewal of accreditation by employing a multi-dimensional approach that supports data-gathering from multiple sources; interim updates and reporting; documented attestations from the institution; layered reviews of compliance documentation by academic, pedagogical, administrative, and financial experts; and a final comprehensive review by Commission members.

A key feature of evaluating continual improvement is annual reporting. DEAC requires each of its institutions to submit, on an annual basis, detailed reports regarding the institution's operations, financial stability, and student achievement metrics. These reports serve three critical purposes. First, they allow DEAC to monitor institutions between the more extensive evaluations associated with the formal reaccreditation process; second, and as importantly, they reinforce the DEAC requirement that its institutions engage in continuous self-examination and self-improvement; and third, they provide assurances that the institutions have the resources available to engage in and implement improvement strategies. The leveraging of data analytics aligns with DEAC's own mission to promote innovation and quality in distance education in support of student achievement and lifelong learning opportunities. The overall process assists institutions to:

- develop early warning systems that identify when students may be getting off track;
- facilitate the strategic allocation of resources to support learning; and
- document student learning patterns and the effectiveness of curriculum components and tools.

In addition to submitting annual reports, DEAC schools provide data on their performance and quality in the period between accreditation cycles through the process of applying for approval of substantive changes. More specifically, before a change can be included in an institution's grant of accreditation, DEAC requires the institution to submit for evaluation any substantive change to its mission, objectives, programs, courses, legal status, form of control, or similar matter. A full evaluation of the proposed change is required and may include a site visit where appropriate. The substantive change notice and approval process ensures not only that DEAC is made aware of any material change to an institution's profile or operations that may occur between accreditation cycles, but also that any such change cannot be included within the grant of accreditation associated with that entity without prior confirmation from the Commission that the change is in compliance with DEAC accreditation standards.

How are site visitors for DEAC selected and trained, especially with respect to DEAC-specific assessment expectations?

I'm glad you asked this question. Selection and training of evaluators is very important and central to the integrity and quality of the accreditation process. Any individual interested in serving as a DEAC evaluator must first submit a résumé, with references, which is reviewed by the staff. Candidates chosen to participate in an evaluation are given training on the accreditation process and standards. This entails completing an evaluator course provided through DEAC's online training center and attending an in-person training workshop offered by DEAC on a periodic basis. A new evaluator is always paired with an experienced evaluator on their first site-visit. Evaluation team members are provided with detailed evaluation rubrics that provide both guidance and a comprehensive checklist for elements central to determining compliance with each of DEAC's accreditation standards. I encourage AALHE readers to review DEAC's assessment rubrics, which are available on our website at <http://www.deac.org/Volunteers/Evaluator-Documents.aspx> and contact DEAC if they are interested in serving as an evaluator.

What are some of the challenges faced by DEAC schools with respect to meeting DEAC assessment expectations? Is guidance available?

Applying for accreditation, in general, is challenging for most institutions. By design, DEAC's accreditation standards address the validity and integrity of an institution on multiple levels, from the adequacy of curricula to student outcomes to conformance with accepted educational and pedagogical standards for distance education teaching and learning. A comprehensive self-evaluation must ensure that no material element is left unaddressed. An institution's fiscal and administrative capacity to effectively deliver its programs through the enrollment period of any then-current student is essential to that institution's integrity. Accordingly, an institution must be able to document through audited or reviewed comparative financial statements (prepared in accordance with generally accepted accounting principles [GAAP]) that cover its two most recent fiscal years, that it is financially sound and can meet its financial obligations to provide instruction and service to its students. The self-evaluation process entails a comprehensive integration of interlocking requirements covering academic integrity, faculty and CAO qualifications, curricular content, design, delivery, testing, proctored examination, academic rigor, resources, practica, calculation of credits, etc., where, in each case, assessment is considered within the context of the effectiveness of a distance learning model. DEAC offers guidance through its Self-Evaluation Guide, available at <http://www.deac.org/Seeking-Accreditation/Applications-and-Reports.aspx>, its online training center, and at annual accreditation workshops.

Is there any interaction between DEAC and the regional accreditors or any programmatic accrediting bodies? If so, for what purpose(s)?

There are many occasions where DEAC interacts with regional accreditors and with the programmatic accreditation community. DEAC is recognized by the U.S. Department of Education and by the Council for Higher Education Accreditation (CHEA), as are most regional and programmatic accreditors. I frequently collaborate with colleagues from regional and programmatic accreditors to present on various accreditation topics at annual higher education conference events. We participate in joint meetings with the U.S. Department of Education on topics important to negotiated rulemaking sessions or recognition review. All accreditors have an interest in state authorization of distance education and the participation of states in the NC-SARA reciprocity agreements. Distance education is a feature of nearly every accreditation model across the spectrum of regional, national, and programmatic accreditation. There are endless possibilities for interactions and collaborations.

In general, what are some fundamental features of accreditation of distance education institutions as compared to "on ground" institutions?

I've discussed at length how our institutions offer a broad span of programs and enroll students with many disparate motivations who engage in learning at a distance. That said, our institutions are also schools whose primary and often exclusive mission is the education of students; they are not research institutions. Accordingly, we expect student outcomes, in their full breadth, to be integral to and the driving force behind the mission of each organization. Education is, after all, both etymologically and operationally, the "leading out" of the student into a world of greater dimension and opportunity. That is why the importance of student outcomes is embodied in each of our other accreditation standards as well – from curricula to faculty to learning management systems to resources and practica.

Curricula, for example, must not just meet academic standards of scope and content, but must also be mapped against student outcome goals and developed using instructional tools and design tailored for *distance learning*. Likewise, faculty are evaluated not just for their academic and teaching expertise, but also for their ability to engage with students *on a remote basis*, their availability to students through multiple forms of communication and across more flexible time frames, and their ability to teach effectively across a broader range of abilities and learning levels than are found at many traditional selective admissions schools. Similarly, in the area of facilities, we work actively with schools to ensure online access to a rich range of resources and to implement and enhance learning management software platforms that support greater student engagement in course materials, better communications between faculty and students, and the

opportunity for social networking among students. And of course, we require our institutions to maintain a financial position sufficient to support the provision of quality programs to their students.

What changes do you anticipate with respect to higher education here in the United States, especially having to do with accreditation?

As you and your members at AALHE well know, the past five years have seen a burgeoning in the field of distance education, as well as a justified winnowing out of some of its players. New technology, new participants, a changing student profile, and a shift in the domestic as well as global economic system have individually and collectively brought challenges to educators across the industry, from traditional brick-and-mortar establishments to pure distance learning schools to institutions that offer some combination of classroom and online learning. Accreditors must rise to the occasion of embracing new models of teaching and learning. Accreditors must be assertive in implementing changes to standards and procedures with the intention of being more effective and proactive, both as monitors of institutional quality and as leaders of institutional improvement, including enhanced requirements for data collection and analytics and a strengthening focus on the area of student outcomes. As a whole, accreditation systems for higher education in the United States are going to be held more accountable to the quality of education provided by accredited institutions.

Association for the Assessment
of Learning in Higher Education

AALHE
PROMOTING ASSESSMENT FOR LEARNING

INTERSECTION

Intersection Editorial Board

Jane Marie Souza, Editor-in-Chief, University of Rochester
David Eubanks, Furman University
Jacob Amidon, Finger Lakes Community College
George Klemic, Lewis University
Gray Scott, Texas Woman's University
Josephine Welsh, Missouri Southern State University

*[Intersection](#) is the quarterly publication of the
[Association for Assessment of Learning in Higher Education](#)*

2901 Richmond Road, Suite 130-318, Lexington, KY, 40509 | 859-388-0855 | info@aalhe.org

This work is licensed under a

[Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License](#).