

National Institute for Learning Outcomes Assessment

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Capella University: An Outcomes-Based Institution

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Capella University

Capella University, founded in 1993 and headquartered in Minneapolis, is an accredited, fully online university that provides degree opportunities for working adults. Nearly 80 percent of Capella's students, called learners at Capella, are enrolled in graduate degree programs. Capella serves over 38,000 learners and has almost 1,300 faculty members ([About Capella](#)). The **mission** of Capella University, as stated on the institutional website, is to make high quality degree programs available to adults who want to maximize their personal and professional potential. Capella University has received numerous awards for their innovative teaching and learning environment, including being the first online university to receive a Council for Higher Education Accreditation (CHEA) award in 2010 for outstanding institutional practice in student learning. The National Institute for Learning Outcomes Assessment (NILOA) selected Capella University for a case study due to its systematic, embedded student learning outcomes assessment process; its administrative support and vision of what assessment can do for individual learners; its transparency efforts such as [Capella Results](#), which publicizes assessment results, and its help in developing [Transparency By Design](#); and its use of assessment results to enhance learner success.¹

Institutional Context

Capella University became an inaugural member of the Higher Learning Commission's Academic Quality Improvement Program (AQIP) in 2001. At the same time that the institution joined the continuous improvement model accreditation process, Capella declared itself an outcomes-based institution. According to Pearce and Offerman (2010), an outcomes-based approach "involves defining what success looks like in a particular field and then developing the most direct educational path to that success" by "reverse engineering the rest of the curriculum to lead students to reach those outcomes" (p. 162). The combination of Capella's AQIP accreditation along with its commitment to outcomes-based education spurred the institution to develop scalable processes to enhance student learning. With support from the outset of the President as well as founder Stephen Shank, Capella went about "trying to define what it would mean to become an outcomes-based institution."

From 2002 to 2007, Capella focused on defining outcomes for all of its programs. In 2003, Capella began to explore the usefulness of action analytics to predict and enhance learner success. In 2007, capstone courses were developed to directly assess program-level learning outcomes; in 2008, assessment data began to be gathered at the capstone level. Capella has been reporting assessment results externally since 2009 on websites including [Capella Results](#) and [Transparency By Design](#). Beyond the program level assessment which culminates in the capstone course, Capella collects direct and

¹ Data collection for this case study involved phone interviews with the President Emeritus (currently the Chancellor), the Provost (currently the Interim President), the Associate Director of Assessment and Learning Analytics, the Director of Curriculum and Instructional Support, the Director of Academic Quality Analytics, and a faculty chair. These interviews took place from November 2010 to February 2011. In addition, we conducted a systematic review of the institution's website and analyzed videos, documents, and interactive portfolios.

Beyond the program level assessment which culminates in the capstone course, Capella collects direct and indirect evidence of student learning through course evaluations; monthly satisfaction surveys; an annual Priority Survey for Online Learners; the National Survey of Student Engagement (NSSE); program or support service engagement surveys; certification and licensure performance; and alumni questionnaires.

Over the course of the last decade, Capella has used accreditation to help drive internal improvement and development of assessment processes through the selection of AQIP action projects, with three taking place each year. Action projects over the years have included integrating assessment data into decision-making processes, documenting subsequent actions taken, and tracking the results created by those actions and the impact of those results; piloting an electronic faculty dashboard that translates data into real-time, visually represented, action-worthy analytics; piloting the fully embedded assessment model known as FEAM; and developing sophisticated alumni data-gathering techniques. Throughout the interviews, we were told that the focus at Capella has been on answering this key question: “Are people learning that which you say they are going to learn and that which the profession or discipline demand that they learn for success?”

Capella’s noteworthy achievements in assessing student learning have not come without challenges, and the institution recognizes there is more to accomplish. Since the impetus to become outcomes-based came from the executive leadership, engaging faculty in this effort and fostering understanding among them of what the institution was attempting to implement proved difficult at first. Further, building the necessary technological infrastructure as well as the institutional processes and protocols to support the development and implementation of assessment took several false starts and brought occasional realizations “that we needed to start over and begin the process again from scratch.” Yet throughout the entire development process, which continues today, Capella University has remained committed to student learning outcomes assessment. In the words of the Provost,

If we are not doing an excellent job of assessment, we can’t be confident that our curriculum is achieving that which we hope it is. Essentially, our students need to learn, persist, graduate, and then achieve their goals in life and career. We can’t tell if any of that is real unless we have some sort of learning assessment underneath.

The outcomes-based approach to assessment now “permeates” the institution, and collaborative teams of faculty, curriculum specialists, instructional designers, course developers, and assessment specialists have embedded assessment throughout the organization. As Michael Offerman, President Emeritus and current Chancellor of Capella University commented, “it began as a process of discovery and is now a part of our culture.

An Outcomes-Based Institution

Capella University has been an outcomes-based institution for about a decade. Derived from their mission to meet the needs of adult learners, the focus of assessment has been on program-level outcomes and their direct assessment in capstone courses. Capella strives, as an administrator claimed, to create a “coherent and coordinated approach to curriculum development, to embed assessment at various levels within every course and the program, and ultimately to focus individual learner progression and success on achieving outcomes.” Capella’s systematic assessment process utilizes a backwards design approach.² Dr. Offerman said of the approach, “if we are really going to be focused on outcomes, we should build our programs from the back to the front. What are those outcomes you are going to have and how do we build to those in the most efficient way to achieve those outcomes?”

²For additional information on backwards design approach see: Wiggins, G., & McTighe, J. (2005). *Understanding by design* (2nd Ed.). Alexandria, VA: Association for Supervision and Curriculum Development.

To build programs beginning with the outcomes requires a process of alignment from individual learning activities in individual courses to stated program outcomes. (More detailed information on this alignment process may be found [here](#).) The program’s expected learning outcomes are the foundation for the development of each course. Faculty determine program outcomes based on the expectations of professional organizations and licensing boards and on the institution’s desired levels of academic performance. Courses are designed collaboratively by teams of faculty and specialists—teams in which faculty, the subject matter experts, are helped in the design process by curriculum specialists with expertise in competency-based curriculum design; course developers with expertise in instructional design; and assessment specialists, who are assigned to serve one of the five Capella schools, with expertise in analytics and measurement. Dr. Offerman described (see the [online transcript](#)) the importance of having collaborative teams:

We approach curriculum and program development differently than most other institutions: by not only bringing together faculty members, course developers, or instructional designers, but also an assessment specialist and a curriculum specialist. We take very seriously the fact that we are an outcomes-based institution, that we are committed to continuous quality improvement, and that we are going to use the incredible amounts of data that we have about learning outcomes to get better and better as time goes on.

The backwards design process currently employed by Capella is, as the Director of Curriculum and Instructional Support stated, “really an evolution over the past ten years that took some learning, collaboration, and pushing to get to the systematic infrastructure we use today.” Curriculum development in the backwards design process has four phases: define, design, develop, and deliver. The definition phase begins with faculty identifying the program-level learning outcomes to outline what the degree will entail and ends at the point of articulation—with mapping the identified competencies throughout the learning experience. The design phase thoroughly details the learning experience, including the learning activities and the different kinds of support resources each activity needs. Key collaborators in this phase are course developers with expertise in instructional design and developmental editors as well as media experts or media specialists. The develop phase is where the course is built into the learning management system. The deliver phase is the instructional component, in which the faculty member reviews and then teaches the course. Capella University employs multiple approaches to ensure that outcomes are embedded in courses through curriculum mapping and other alignment activities. (For a behind-the-scenes look at the institution’s competency alignment, view the [Competency Design Map](#).) In addition to ensuring that the design of programs embeds outcomes assessment, academic program reviews incorporate learning outcomes assessment results.

Curriculum Mapping and Fully Embedded Assessment Model

Alignment of the curriculum with learning outcomes and relevant assessments tied to those outcomes is ensured through a curriculum mapping process. Curriculum mapping allows the implementation of a “fully embedded assessment model,” or FEAM. FEAM is a process of using course-based assessments to measure the extent to which the program-level learning outcomes are being demonstrated throughout a learner’s coursework. In other words, FEAM documents relationships between scoring guides or rubric criteria used to assess student learning on specific outcomes and the specific course competences or learning outcomes to which they are said to align. By examining the relationship between the criteria used for scoring and the stated learning outcomes, FEAM ensures that scoring guide criteria are used to address the learning outcomes they claim to address and provide formative assessment and feedback to learners on their program outcomes performance. Alignment standards are critically important to the process and summarized are: 1) specific language; 2) aligned to the competency or outcome rather than the assessment; and 3) assesses only one competency or outcome. If these three standards are met, along with many other standards for curriculum course and assessment design,

then Capella assumes the assessment model is of high quality. For instance, a scoring guide used to assess an outcome, such as communicating effectively within a specific discipline, would be examined by faculty to ensure that the scoring guide is aligned to the outcome and not addressing other outcomes or scoring learner on items not covered in the specific outcome. As described by the Associate Director of Assessment and Learning Analytics, the FEAM process is about “. . . a relationship established by subject matter experts [faculty] who independently examine criteria and competencies for alignment. When they are in agreement we infer quality, and if they are not we have a discussion.”

Discussions on relationships between assessments, scoring of those assessments, and stated learning outcomes may take the form of **moderation sessions** that involve groups of faculty using a common scoring guide or rubric in an online conference center to independently rate student work. Once they have individually rated the student work, their ratings are posted for each criterion and participants can see where there is agreement or disagreement. Participants discuss points of consensus and disagreement with the goal of revealing and resolving differences in performance expectations to increase reliability and consistency of outcome measurements. The Associate Director of Assessment and Learning Analytics “conducted a survey of this type of work and found that faculty are willing to do more of these [moderation sessions] even without pay, as it’s a fulfilling activity to do.”

Faculty may also participate in a frame of reference—which, as outlined by Jeffrey Grann, “represents faculty’s collective understanding of the outcomes and their expectations for learners’ outcome performance. This broad definition permits all program faculty to contribute and broad types of information to be represented.” For example, through a meaning-making process faculty might discuss what it actually means to communicate effectively within their program. Frame-of-reference work was inspired by a recommendation by the National Research Council (2001) to base educational assessments and reports on cognitive models of learning. A faculty chair said of the curriculum mapping process,

We took our outcomes at the program and the specialization level and did an alignment to individual courses—all the way down to individual learning activities—such that we would have the ability to measure things at the micro level and the macro level all the way up to the program level and in fact the school level and the university level too.

The curriculum mapping process is designed to ensure that program level learning outcomes are addressed in courses, that faculty agree on what those learning outcomes mean, that there are learning activities within those courses which address program level learning outcomes, and that scoring guides used to assess student learning are reliable and accurate. The outcomes-based assessment model at Capella ensures that student learning outcomes assessment is not the responsibility or purview of one person or office but, instead, is embedded throughout the entire organization—from the executive leadership to the individual learner. As the Director of Academic Quality Analytics stated,

I used to say that we will know we have become a learning outcomes institution when, as an organization, we are looking at learning outcomes. We have reached that point now, and I cite as evidence that our university board and our Capella Education Company board as well as our executive leadership team and many other groups around the organization have learning outcomes as one of their quality performance indicators and routinely examine them for learner progress and success.

Administrative Support of Assessment

While it is certainly true, as the Director of Academic Quality Analytics said, that Capella's becoming an outcomes-based institution "could not have been done without supreme commitment by the faculty," the support of university administration has been especially critical in that effort. Administrative support at Capella has taken the form of sustained, consistent leadership over the time that the necessary infrastructures and processes were developed. Support in the form of assessment specialists assigned to each school has provided staff support for embedding outcomes assessment in programs. In addition to people, a clearly articulated vision that those within the institution can understand and support has allowed for buy-in at multiple levels. As the Provost posited,

What it took and continues to take is an active, ongoing commitment to assessment work. It's a long-term effort, so administratively we need to stay focused and persist in the vision of achieving and using assessment. In other words, we have a clear conceptual framework that the organization believes in and understands of why we are doing assessment that faculty can support.

The support of administration in the assessment process provides, as an administrator said,

[It's] a signal to faculty members that what they are doing with rubrics and alignment matters. When they [executive leadership] are looking at learning outcomes it's a signal to the organization that we are measuring what they value and faculty know that the single activity of completing a scoring guide is part of a much broader comprehensive system to understand academic quality.

The support of key administrators across the organization has also led to Capella's involvement in the [President's Forum](#) and the development of such initiatives as [Transparency By Design](#) and public reporting of assessment results.

Communicating Results

Capella communicates assessment results to its multiple internal audiences such as learners, faculty, and administrators; and audiences external to the institution, such as prospective learners and accrediting bodies. A faculty member discussing transparency (in an [online audio clip](#)) stated, "I love that we are state-of-the-art. I love that we are not afraid to share our results, because they are so stellar, and that is something that we work at every single day." Transparency is important internally and, as Dr. Offerman claimed in a [presentation](#), "it is a very powerful tool. It makes the intended outcomes and experiences very transparent to the learner. That means they can see it. They can see what our plan is in terms of what they have to do to start, proceed through, and conclude their programs."

In support of the vision of transparent communication of assessment results, Capella University's involvement was instrumental in establishing the [Transparency By Design](#) (TbD) initiative.³ This initiative is driven by regionally accredited, adult-serving, distance higher education institutions committed to providing detailed information and results on the expected educational outcomes of the programs they offer, the success of students in achieving those outcomes, and the accomplishments of program graduates. Dr. Offerman chaired TbD's executive committee and Kim Pearce led the initia-

³ For more information on Transparency by Design, click [here](#).

tive’s data working group, which developed the template that participating institutions use to track and report results.

In addition to participating in external initiatives such as TbD, Capella developed an entire website dedicated to reporting assessment results. Capella Learning & Career Outcomes, or **Capella Results**, provides comprehensive, in-depth data and results of program learning outcomes and is “progressive in publishing program-level information on both expected and actual learning outcomes.” On the website there are video explanations of reports, detailed information on how to navigate and understand interactive graphs, and results for individual programs and specializations on learning and career outcomes. Learning outcomes transparency is **described** as “at its most simple form, the establishment of program outcomes, measuring learners’ achievement, or demonstration of those outcomes, and then publishing the results externally.” A **press release** states that Capella Results “enables the public, including prospective students, employers, and policymakers, to assess the value of a Capella education by providing detailed measurement of student outcomes—the actual skills and knowledge Capella students obtain—as well as graduation and career success rates.” The importance of publicly sharing results was expressed by the Provost: “It shows those internally and externally that we really mean it, saying you know we are going to measure learning outcomes, continuously improve, and make it all public. But it also gives people information that allows them to make good choices.”

Using Evidence of Student Learning

Capella uses different types of assessment results and indirect indicators of student learning in numerous ways. As stated on its **website**, Capella’s enrollment counselors use the data to help prospective learners choose degree programs; advisors and career counselors use the results to guide learners in career exploration and planning; and faculty use the results to improve academic programs, update curriculum, and generally improve student learning and the career success of graduates. Capella is committed to supporting the use of assessment results within the institution and even has a **university policy** on the use of assessment data. Assessment results are included in the process for course revision, all of the curriculum alignment processes, program review, and the identification of priorities. The Director of Curriculum and Instructional Support claimed, “We use assessment results every day in all of our decision making. We are a data-driven institution; it’s really embedded throughout the organization.” However, another administrator cautioned that the use of assessment results is a work in progress, in which “there are many different ways that assessment data are trying to be utilized and I think we’re still trying to mature in our decision-making models.” On the general use of assessment results, Dr. Offerman explained,

We are interested in using data and converting it rapidly to useful or actionable information that we then give to faculty, advisors, and most importantly directly to learners. Our vision is not that we are merely assessing learning but that we are assessing it and using that information to understand whether or not programs are delivering what they are supposed to, courses are delivering what we claim they are, and that learners are actually achieving what they need to succeed. Thus, what began as an effort to say we are outcomes-based has become what we would call now action analytics.

Two examples of the use of assessment results to make improvements to student learning are presented below. One is from a business program and the other is from a psychology department. In the first example, a faculty chair in business examined the results of program outcomes for learners who completed the program capstone course and found that on one of the outcomes, learners were performing below what he regarded as the minimum threshold. Through the curriculum maps and alignments linking learning activities in individual courses to program outcomes in the capstone, he was able to identify across the entire program which courses had the strongest alignment to the outcome in question. From

there, he was able to delve deeper into individual learning activities, to combine that information with additional data including course evaluations, and from the combined data to make detailed changes in specific courses and specific learning activities or assignments within courses. By the time participants in the revised courses and learning activities completed the capstone course, there was a measurable improvement in the particular outcome in question. The faculty chair involved in the process stated, “The concept of having an outcomes-based approach and having a strong theory of alignment all the way down to individual learning activities helps facilitate the use of assessment data.”

The second example of the use of assessment data to improve learner success comes from the psychology department. Through the results of the program outcome assessment in the capstone course, faculty identified that students were achieving well in many areas but not achieving as well on the outcome of recognizing ethical practice and the impact of diversity on ethical practice. To determine what might be the cause of this dip in achievement, faculty dove deeper into the curriculum through the use of the curriculum maps and alignment tools to see how many actual assignments and objectives addressed the outcome. Faculty found that there were fewer assignments that focused on the outcome in question across the entire program curriculum. An administrator involved in the process commented,

When we were looking across the entire curriculum, we asked, “How many times do we touch on this issue of ethics and diversity?” We are able to use outcomes data to examine the curriculum with some degree of precision, and we are able to go in a bit more surgically and say we need to improve in these particular areas.

Additional modules and assignments on the topic were included in the curriculum so that the outcome was addressed in a richer way, and when learners who participated in the revised courses reached the capstone they performed better on the outcome in question. The Provost said of the process, “The faculty build the curriculum with assessment embedded within it, use the tools to do the assessment, and then review the results to modify their curricula to improve the learning outcomes. It happens across the organization on a continuous basis and the cycle continues perpetually.”

Next Steps

Among the individuals interviewed for this case study, the general consensus on the future of the outcomes-based approach at Capella was summed up by the Director of Academic Quality Analytics: “As good as we might think we are, there’s a lot more we can do in helping everybody across the organization see how they contribute to learner success through learning outcomes and assessment.” The future of assessment at Capella University will involve further development of action analytics, dashboards to facilitate understanding and use of assessment results, and predictive modeling to help identify opportunities to provide support to learners and enhance success.

Action analytics are processes of data assessment and analysis that enable us to measure, improve, and compare the performance of individuals, programs, departments, institutions or enterprises, groups of organizations, and/or entire industries. In 2009, Capella University and the Minnesota State Colleges and Universities system co-hosted the *Action Analytics Symposium*, where a diverse set of thought leaders developed a national agenda for advancing quality assessment and analytic practices. Dashboards provide a means of filtering and automatically presenting information in an easy to read, user friendly manner. Predictive modeling allows the institution to identify where an individual student is not doing well and identify on which competencies the student needs additional assistance

to succeed—and also to share that information directly with the learner, the faculty, and the advisor. Describing the future, an administrator envisioned an infrastructure to “turn data into actionable information that is delivered in real time to students, faculty, and advisors.” This would allow for the facilitation of genuine persistence, which the Provost described as

. . . actual success in persisting. We don't want people to move on to the next class not having learned what they need to succeed. If we don't have learning assessment tools, then how do I know that they [the students] learned anything and are not just moving to the next class without learning?

The future of outcomes-based assessment at Capella has many potential avenues to explore. Since in the “online world, every interaction is observable and reportable. . . we can use data to understand program health, learning effectiveness, and student success in ways we did not fully imagine ten years ago” (Pearce & Offerman, 2010, p. 166).

Lessons from Capella University

1. Administrative support is vital to providing the vision and drive to continually assess student learning at many levels across an institution, as well as to publically report results.
2. Developing the requisite infrastructure and processes necessary for organization-wide learning outcomes assessment takes time, understanding, resources, and the involvement of many different groups throughout the institution.
3. As with other aspects of learning outcomes assessment (Ewell, Paulson, & Kinzie, 2011; Kuh & Ikenberry, 2009), accreditation may be used to help facilitate ongoing, internal, continuous improvement of student learning and assessment processes.
4. Building a collective understanding of the importance, potential, and meaning of assessment takes time and the involvement of many people across the institution. Cultural shifts toward becoming an outcomes-based institution cannot occur if assessment is the purview of, or understood by, an individual or a single office.
5. Student learning may be enhanced by designing programs and curriculum backwards from the desired learning outcomes to specific courses and their learning activities. Such a backwards design approach may facilitate student progress in achieving outcomes and help faculty to better understand and use assessment results.

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NILOA Examples of Good Assessment Practice

With funding from several foundations, the National Institute for Learning Outcomes Assessment's (NILOA) mission is to examine institutional practice and help institutions productively use assessment data to inform and strengthen undergraduate education as well as to communicate with policy makers, families and other stakeholders. Documenting what students learn and can do is of growing interest both on campus and with accrediting groups, higher education associations, parents, employers, and policy makers. And yet, we know far too little about what actually happens in assessment on campuses around the country. NILOA conducted several short case studies, titled *Examples of Good Assessment Practice*, of two- and four-year institutions in order to document institutional achievements in the assessment of student learning outcomes and highlight promising practices in using assessment data for improvement and decision-making. The data collection process included a thorough examination of the websites and relevant assessment documents (accreditation self-studies, assessment reports, program reviews etc.) for selected institutions and interviews with key institutional representatives.

About NILOA

- The National Institute for Learning Outcomes Assessment (NILOA) was established in December 2008. It is funded by Carnegie Corporation of New York, Lumina Foundation for Education, and The Teagle Foundation.
- NILOA is co-located at the University of Illinois and Indiana University.
[www. learningoutcomesassessment.org](http://www.learningoutcomesassessment.org)
- The NILOA website went live on February 11, 2009.
- The NILOA research team reviewed 725 institution websites for learning outcomes assessment transparency from March 2009 to August 2009.
- NILOA's founding director, George Kuh, founded the National Survey for Student Engagement (NSSE).
- The other co-principal investigator for NILOA, Stanley Ikenberry, was president of the University of Illinois from 1979 to 1995 and again in 2010. He also served as president of the American Council of Education from 1996 to 2001.

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