

General Education Assessment Processes Supporting Student Choice

How to assess and show progression of learning in General
Education courses without prescriptiv

interpret assessment data to identify any gaps in student learning that may drive curricular improvements or additional student support.

This paper aims to share one institution's process for assessing learning in General Education while allowing students the freedom to choose most of their courses. This is particularly important for institutions serving adult learners. Topics covered include developing General Education Student Learning Outcomes that represent essential 21st Century Skills, using Bloom's Taxonomy to design course assignments at increasing levels of rigor within a course, designing authentic assessments that align to Course Student Learning Outcomes and map to General Education Student Learning Outcomes, and developing a systematic process for collecting, analyzing, and responding to General Education student learning assessment data.

Research Goals and Support for Our Process

The College of General Studies at University of Phoenix sought to develop a process that addresses the specific problem of how to effectively map General Education curriculum to learning outcomes and show progression of learning without sacrificing scheduling flexibility for students. Mapping Course Student Learning Outcomes (CSLOs) tied to summative assessments to General Education Student Learning Outcomes (GESLOs) allows us to evaluate at an institutional level how our students are performing towards those learning outcomes to ensure effective curriculum. This also allows wide visibility to the learning outcomes and aligned skills students experience in each course, which University departments can share with students through advising and the student portal. This supports the University's strategy of aligning course curriculum to relevant-career skills to help students make the connection between what they are learning in class and skills they can use in their professional lives.

In undergraduate programs, students often undervalue General Education coursework (Gump, 2007). In addition to highlighting the career-relevant skills students can gain through completion of their General Education coursework, one way to improve student perception of the value of General

understanding the needs of the non-traditional student is an important backdrop to the work we undertook, which began with refining the mission and objectives of the General Education curriculum.

The College started its General Education reform process with a review of industry standards for General Education learning outcomes, which would inform the revision and refinement of previously established GESLOs. The College reviewed the 2017 Arizona Board of Regents report on General Education Quality and Outcomes for Northern Arizona University, HLC Criteria, Arizona General Education Curriculum, Association of American Colleges and Universities standards, National Association for Research in Science Teaching, the National Science Teaching Association, and Next Generation Science Standards. In addition, the College explored outcomes at comparable higher education institutions including Southern New Hampshire University, California State University (Northridge), University of Nebraska at Omaha, and Maricopa Community Colleges (Arizona). These sources provided helpful insights as we worked to update our learning outcomes to reflect the most important skills we wanted students to gain through completion of their General Education requirements.

The following table reflects the five GESLOs the College developed through refining existing learning objectives to better align to the University's educational mission and current General Education standards at the time. Each GESLO encompasses program-level skills also outlined in the table.

Students

After receiving approval of the proposed GESLOs from the University's Academic Council in August of 2020, the College began step two, which was to develop Course Student Learning Outcomes (CSLOs)

for all General Education courses, following the University's framework of designating one CSLO per credit hour for each course. The next section details the work that went into this step.

As you might imagine, the process of developing CSLOs for every General Education course was labor intensive and time consuming, and required the College to identify and prioritize courses we would need to revise to align with the newly developed CSLOs. The goal for every course was to create a more streamlined set of course outcomes with more obvious ties to career skills. It was important to develop each CSLO with an appropriate level of academic rigor to ensure effective scaffolding and progression of learning. This also supported the design teams who would use the CSLO level to guide them in selecting the appropriate learning level for the aligned assessments. The College team used Blooms Learning Levels to inform development of the CSLOs and the assessments.

The following table, included in a handout developed by Iowa State that was adapted from Anderson et al., 2001, provides various verbs to describe what assignments may ask students to do at different learning levels, (Anderson et al., 2001; Iowa State University, 2012). For example, higher learning level assignments may ask students to critique a piece of work as compared to lower learning level assignments that may ask students to describe it. The College used these learning levels to inform how we designed assessments.

Understand	Apply	Analyze	Evaluate	Create	Metacognitive
generating	recognizing	interpreting	executing	interfering	arguing
constructing	classifying	evaluating	extrapolating	interpolating	mapping
matching	constructing models				

Table 2 adapted from Anderson and Krathwohl, 2001, pp. 67-68.

Associate Deans for the College developed CSLOs with the intention that they would be the primary unit of measurement for assessment. The College developed the CSLOs in collaboration with faculty and other stakeholders, including industry advisory council members and the College Curriculum manager. We developed CSLOs to reflect the most important curricular content knowledge students should take away from each course, as well as employer-sought skills (Kelly et al., 2023). We tied the CSLOs to the top common skills associated with job posting analytics aligned to the Classification of

Instructional Programs (CIP) and Standard Occupational Classification (SOC) codes for the University's five highest enrolling undergraduate programs, as well as relevant skills identified through industry advisory council input. As outlined in a published paper about skills mapping a Bachelor of Science in Environmental Science program, job posing analytics data included top technical skills and common skills, (Kelly et al., 2023). The College intentionally aligned General Education courses to skills students would build upon in their major coursework, a factor that can improve the value proposition for students (Thomson, Eodice, & Tran, 2015).

The College followed a General Education mapping process that was similar to the process used to map the Bachelor of Science in Environmental Science program as outlined in,

(Kelly et al., 2023) For each CSLO in each course, the College determined the appropriate level of academic rigor based on the level of the course. Consulting the University's Academic Rigor Degree Leveling Policy, adopted from the Lumina Foundation Degree Qualifications Profile (LFDQP) for associate through master's degree program levels, the College elected to treat 100-200 level courses as associate level and 300-400 level courses as bachelor's level in terms of rigor, (<https://www.luminafoundation.org/files/resources/dqp.pdf>, 2011). The College used the degree leveling policy and Blooms learning levels to establish appropriate levels of rigor by course level.

After the College defined the level of academic rigor appropriate for each course and developed CSLOs at the aligned learning level that mapped to GESLOs, the College was able to assess student learning at the course level and from that infer proficiency towards the aligned GESLO, (Kelly et al., 2023). This alignment of CSLOs to GESLOs and designing assessments at varying Blooms Levels of Learning within General Education courses facilitates analysis of progression of student learning, while maximizing student choice in which courses they take (Kelly et al., 2023).

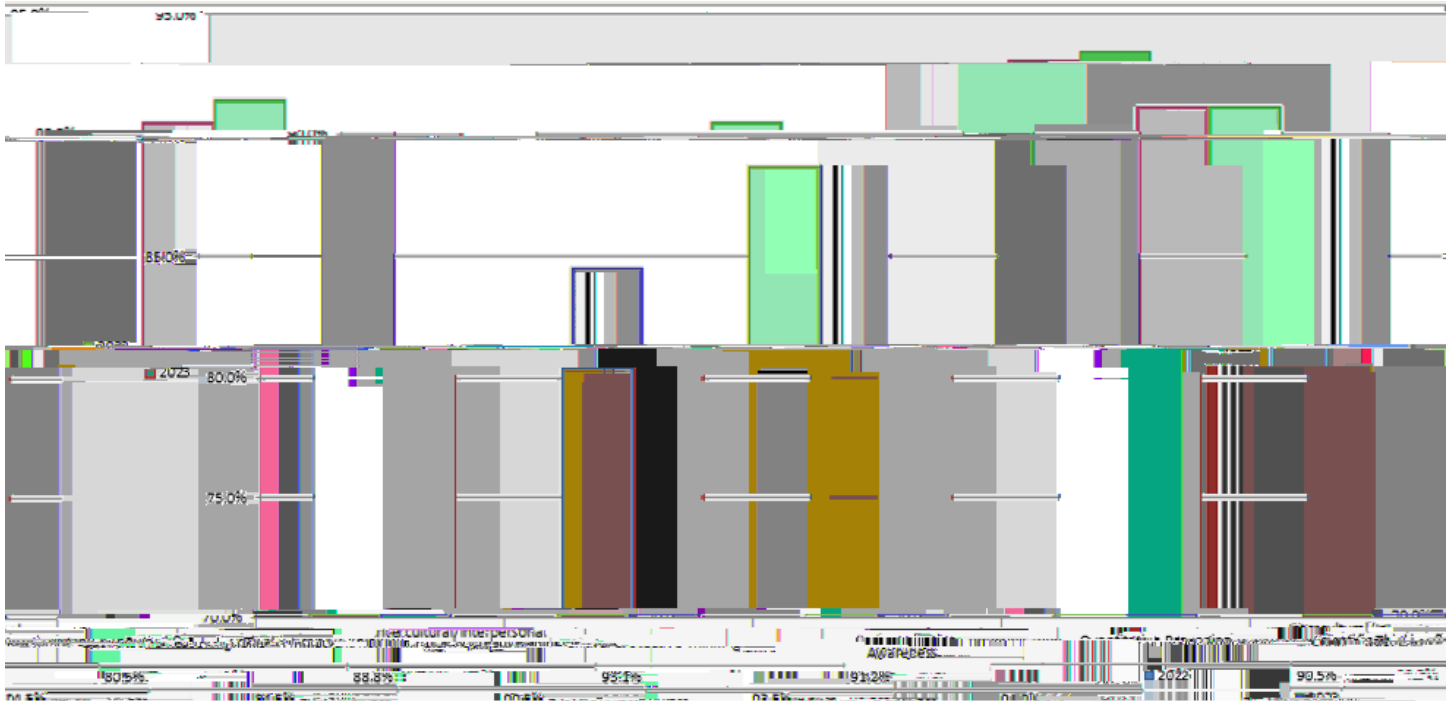
Elements that are part of the College's skills mapping and course design process include collaborating with faculty to develop CSLOs and design authentic assessments that effectively measure student attainment of the CSLOs. Each CSLO is written with a specific Bloom's verb that sets the learning level and guides creation of the assessment. The maps show how the CSLO learning levels change during a course, allowing the College to measure progression of learning. Courses also include situational career context for the assessments and obvious ties to the linked skills identified for each CSLO.

The process we followed to develop CSLOs and assessments that we tied to course skills and mapped to GESLOs, was not always linear; however, for the purposes of this paper we described the steps in the order in which they would ideally happen. After the College's Associate Deans created CSLOs and tied them to skills and skill descriptors for clusters of Gener

College designed assessments with progressively higher Bloom's Learning Levels during the five to

assessments measure the CSL

curriculum delivery, and student learning without sacrificing students' desire to select the General Education courses they wish to take.



1.

, 0 .

We have successfully integrated this process into the College's operating plans over the past two years and it is working well in terms of being able to evaluate student achievement of the GESLOs. However, as outlined in the next section, there are nuances and limitations to our process. In addition, it does not include a way to measure student perceptions of the value of General Education coursework, which reflects a gap in our understanding of how our work addressed the problem we aimed to solve. We do have data measuring student completion and persistence rates in General Education courses, and we can assess their satisfaction levels and feedback through our end of course surveys. These mechanisms give us some indication of how students feel about General Education courses, but we still have work to do to gain a deeper understanding of student perceptions.

Next Steps (Implications)

As mentioned in the preceding section, we have 85% of our General Education catalog designed in a skills-aligned format with one CSLO for each credit hour mapped to one GESLO. We have approximately 19 General Education courses that have not yet been skills mapped and all are part of a roadmap to complete within the next year. Our highest priority next steps are to revise our remaining courses into our skills-aligned design and continue to collect and analyze GESLO assessment data for all courses already mapped. We hope to continue to see students meeting our thresholds of performance on most of the GESLOs regardless of when students take specific courses. We will also continue to refine our process and work towards resolving the limitations we acknowledge are inherent in our current process.

One limitation is that we have courses within our catalog that do not lend themselves to authentic assessments. Courses we designate as technology-enhanced leverage third-party tools to enhance

that align with their interests, and it will not disrupt our ability to assess how students are performing towards the most critical learning objectives tied to General Education.

New under

education for over 21 years, holding positions in Student Services, Academic Affairs, and College and Campus Operations. Her diverse experience and authentic leadership style has allowed her to develop high performing teams that put students at the center of everything they do. Houlihan holds a Master of Business Administration de