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e National Institute for Learning Outcomes Assessment (NILOA), established in 2008, is a research and resourcedevelopment organization dedicated to documenting, advocating, and facilitating the systematic use of learning outcomes assessment to improve student learning.



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Natasha A. Jankowski & Gianina R. Baker

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is collection of resources outlines lessons learned about mapping and assessing learning in student a airs and student employment over the last three years while the National Institute for Learning Outcomes Assessment (NILOA) assisted institutions which were developing Comprehensive Learner Records and scaling high-impact practices. In each of these initiatives mapping of learning, redesigning assessments, and creating assignments was a staple of practice. Further, assessment practitioners were reminded that before sta jump into implementing assessment and writing the perfect learning outcome statement with just the right verb, time is needed to think about what is being built, why, how, and which students are best served by it all. e discussion centered upon: What is the role of student a airs as part of a larger system of interlocking and supporting learning for students throughout an institution that builds towards common or shared learning outcomes? is resource provides inroads to such discussions by addressing four areas:

- An Assessment Refresher
- Mapping Learning
- Applications to Student Employment
- Assignment Design

e collection concludes with various additional resources to inform practice and for use in institutional professional development.

Assessment is most commonly de ned as the systematic process of collection, review, and use of information about educational programs, practices, experiences, courses, and the like unde 0 (gRs(asJ- mTw -11.1od)0.5 (fopratic grams, des inr-1 a aig) TJO) Teloping Comd writerelliter.01 Tw -3.-1.2 Td(

For purposes of intentional design and to help students make sense of their learning, practitioners have been unpacking the interconnected nature of learning through mapping and aligning learning outcomes to di erent learning experiences across and throughout institutions of higher education (Jankowski & Marshall, 2017). e approach of mapping and alignment serves to make learning and assessment transparent and visible, remove arbitrary organizational silos, all while ensuring multiple opportunities for students to practice and hone desired learning throughout the entirety of an institution as a learning system (Jankowski & Marshall, 2017).

Due to the shared nature of developing learners over time in partnership with academic a airs and learning development spanning more than a single event, it is useful when discussing assessment to ensure that everyone is on the same page with the purpose, value, and worth of assessing student learning in order to avoid talking past one another. An activity that may be useful for refresher discussions with those new to assessment is the assessment philosophy activity (Jankowski, 2020). Various resources also exist for those new to assessment including a glossary, acronym list, resources on writing learning outcomes, and information on foundations of assessment. Guidance on assessing student learning in various functional units can also be found via the resources on the Council for the Advancement of Standards in Higher Education website and the recent paper on using the CAS framework as a holistic approach to assessing student learning (Henning, Robbins, & Andes, 2020).

Shared understandings of the purpose and value of assessment provide space for clearer and more productive discussions on what exactly the desired learning outcomes for students entail. Some institutions develop learning outcomes specied to student a airs (such as the University of California, Irvine domains), some expect student and academic a airs to align to shared institutional learning outcomes, and others adopt or modify existing learning outcomes such as NACE competencies. Regardless, it is useful to one guidance on how the outcomes were developed and how they have shifted over time for those new to the discussion. University of San Diego's Evolution of Co-curricular Learning Outcomes provides an example of such an approach.

Finally, once the purpose and value as well as learning outcomes are established and widely understood, practitioners can move into developing a unique institutional approach to assessment or a reporting plan for co-curricular assessment approaches such as those presented by Rhode Island College's Co-curricular Assessment Plan or Oregon State University's approach to assessment in student a airs.

Mapping is a collaborative process of indicating which activities or experiences align with which learning outcomes throughout an institution of higher education. It is a process of making clear the relationships between dierent parts of the educational enterprise as well as providing clarity to students on the intended educational design (Jankowski & Marshall, 2017). While mapping is a useful guidepost, it does not preclude diversity or variation in learning, exibility, or the nature of learning that is emergent and unplanned. What mapping indicate clearly is what faculty and sta have designed a learning experience to achieve for a student in alignment to shared learning goals of the institution. It answers the perennial student question: "But why do I have to do this?"

If we consider from the prior section that assessment is the systematic collection process that examines intentional design, then assessment is actually positioned to help practitioners think deeply about learning design and how the design of learning intersects with beliefs about the purpose of education and the student population served by the institution. More than compliance reporting, assessment is a vehicle to capture learning in the various places within institutions in which it occurs, supporting student success, and providing evidence with which the institution can make the case about overall e ectiveness while helping guide students through their learning journey. It is towards these ends that mapping focuses upon transparency, intentionality, and alignment.

Starting Points

Mapping necessarily requires that there are learning outcomes in place that are collectively understood to which activities, experiences, and the like can be mapped. Student learning outcomes identify, for practitioners and for students, what students will know, think, or be able to do as a result of the intervention, event, experience, or service. It is focused on what students will DO as a result and what they can DEMONSTRATE, meaning there will be artifacts or evidence of learning that emerge.

Mapping can begin with an inventory, but an inventory is a tool that can be employed in mapping, not a map in and of itself. An inventory is a list of all activities or events. A map is a grid of connection points between dierent levels and layers of learning. It outlines how a particular instance of learning connects to unit or program learning outcomes and to institution-level learning outcomes. e inventory can help institutions get organized by sorting activities by those that are associated with special clearning outcomes, those where learning will be assessed, and those that are simply available for student participation and general growth. e inventory can be shared with students as a catalog of all available of erings or as a means to indicate that need to be mapped.

A crosswalk may also be a valuable starting tool (Table 1). A crosswalk outlines the translation points between di erent learning outcomes, such as how the NACE Career Readiness Competencies connect (or not) to the general education or institution-level learning outcomes (or not) and how those connect (or do not) to speci c unit-level learning outcomes. It provides a translation table that indicates "when we say this it is the same as when they say that." e crosswalk is a useful tool for preparing for multi-level mapping.

For purposes of mapping, practitioners need to identify where assessment will occur with which learning experiences from the inventory. is can be completed through conversations exploring the process for examining the learning that comes from students participating in various activities, experiences, and events. Discussions generally focus upon design asking: Why do you think that this learning will come from these events? Focusing on the theory of change behind why institutions ask students to partake in di erent types of learning experiences helps ensure that there is meaningful alignment between design, expectations, and learning. For assistance in outlining a clear theory of change as it relates to assessment, see Ashley Finley's (2019) paper on assessing high-impact practices or Keston Fulcher and associates (2014) paper on learning improvement.

Mapping is a collaborative process of indicating which activities or experiences align with which learning outcomes throughout an institution of higher education. It is a process of making clear the relationships between di erent parts of the educational enterprise as well as providing clarity to students on the intended educational design.

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	Critical inking/ Problem Solving	Critical and creative thinking	Critical inking Skills
Administrative and Professional Skills	Oral/Written Communications	Written and oral communication	Communication Skills
Civic and Community Engagement	Teamwork/ Collaboration	Teamwork and problem solving	Social Responsibility Skills
	Digital Technology	Information literacy	Communication Skills
Leadership Development	Leadership	Civic knowledge and engagement	Social Responsibility Skills
Administrative and Professional Skills	Professionalism/ Work Ethic	Foundations and skills for lifelong learning	Personal Responsibility Skills
Personal Responsibility	Career Management	Integrative and applied learning	Personal Responsibility Skills
Diversity and Global Consciousness	Global/ Intercultural Fluency	dminitiv0eATJTJ-29 -1. Skills	992 Td∳qkillsDivesponsi

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Learning Outcome 1	Exposure/ Participation	Reinforce/ Development	Not Addressed or only aligns to a program- speci c outcome	Attainment/ Achievement
Learning Outcome 2	Re ective Assignment	Presentation	Project Development	Meeting Agenda or Email
Learning Outcome 3	Stand alone	Coupled with a course	In Development	Student Employment

2. Examples of Assessed Learning Mapped to Learning Outcomes

e development and design of the map should be in alignment with the intended purpose and uses of the map. is ensures that mapping is not completed to simply go through the exercise of mapping, but to be useful to the purpose, function, and value of assessment as identi ed by the mapping participants. As such, elements to consider in mapping include:

- To what level of learning outcomes will assessments and activities be aligned? Speci c unit learning outcomes? Student a airs division learning outcomes? General education? Institution-wide learning outcomes? Others?
- What are the criteria for inclusion on the map? Is it that the activity or event addresses a speci c learning outcome? Or that the learning outcome to which the activity is aligned will be assessed?

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Mapping which activities, events, or programs align with which learning outcomes positions student a airs divisions to develop comprehensive learner records which transcript learning from both in and out of classes based on assessment evidence (Baker & Jankowski, 2020).

Mapping also provides a means for more equitable assessment opportunities for students. In concert with advising conversations with students, maps provide a means to discuss with students the various ways both in and out of classes they can demonstrate their learning



F 1. Elements of an Assignment Design Conversation

e charrette process is an opportunity for state to sit together and create, co-create, or review and revise assignments and possible artifacts of student learning that can be gathered from various co-curricular experiences. Focused on intentionality of design, clarity to students, transference of learning from one setting to another, and developmental in nature, assignments form the basis for evidence of student learning from throughout an institution.

Considerations for hosting an assignment charrette include:

For additional planning considerations and materials on assignment charrettes see the toolkit (NILOA, 2018).

e assignment discussion should open with time spent on ensuring there is a shared understanding of the purpose and value of assessment for the institution and unit as well as a shared understanding of the learning outcomes to which the e orts will align. Next, the groups should establish some rules of engagement on how to be supportive of colleagues in the assignment discussions which may include active listening, focusing on being helpful rather than critical, and mutual respect. e appendices to this resource provide information on the process and questions that are employed during a charrette. Of note, it is important to mind the time and keep everyone moving forward at the same pace. e charrette is designed to start the conversation and provide enough time to get juices owing and ideas shared, but not enough time to complete the task. the conversations should continue, in other venues, and at a later time in the future after re ecting on the feedback and the dialogue. Trying to nalize everything in one day is unlikely to be successful and can be overly taxing for group participants as opposed to energizing. To keep time, either appoint a facilitator or a time-keeper within each group that keeps everyone on task and focused on contributing and bene ting from the discussion. Finally, the time together for each participant concludes with time for written feedback. While the NILOA form is very simple, it can be modi ed to align with more

revising an existing assignment or assessment through a peer review process.

provides process instructions and feedback questions for an assignment charrette focused on student employment as an assessment mechanism, including rewriting job descriptions to align with learning outcomes and determining artifacts from employment that are applicable to institutional assessment.

Should you engage with and modify these tools, please contact NILOA and share your e orts as we are always looking to share di erent institutional examples: niloa@education. illinos.edu.

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In groups of no more than 5, each person/team will have an opportunity to present their learning outcome(s) and receive suggestions and feedback on developing an assignment from the group. In order for everyone to have an opportunity to give and receive feedback, a timed carousel process is used. Each round is designed to provide feedback and support to one person at a time. is means that in a group of 3 people, there would be 3 rounds and in a group of 5, there would be 5 rounds of design support. You will be a "presenter" for one round and a "participant" for the other rounds.

Each round is 25 minutes.

e presenter introduces the learning outcomes for which an assignment or assessment is to be designed and provides contextual information to the listeners to assist in the design process. Contextual information may include information on student recruitment and attendance, the focus of the program/event/activity, other related events or programs to which it might connect, the timing during the academic year when it occurs, any partnerships or connections with other organizations/groups/academic programs, and (if applicable) any relevant information or data on past assessments or evaluations.

L ; jot down thoughts and questions but please do not interrupt the presenter, let them have their full time. You may ask clarifying questions at the end.

Listeners will respond to what they have heard, taking turns asking questions, sharing thoughts, feedback, and thinking creatively about possible assignments that address the learning outcome(s) of interest. e purpose of the discussion is to help your colleague design a well-aligned assignment so please be constructive and collegial. Also, please mind the time and allow each participant the opportunity to contribute to the discussion. Discussions should address the questions on the feedback sheet.

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In groups of no more than 5, each person/team with an assignment to review will have an opportunity to share their assignment and receive suggestions and feedback from the group through a collaborative, peer review process. In order for everyone to have an opportunity to give and receive feedback, a timed carousel process is used. Each round is designed to provide feedback to one person at a time. is means that in a group of 3 people, there would be 3 rounds and in a group of 5, there would be 5 rounds of review and feedback and/or design support. You will be a "presenter" for one round and a "participant" for the other rounds.

Each round is 25-30 minutes.

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e presenter introduces the learning outcomes to which the activity or program aligns, provides an overview of the assignment itself, and then provides background information for the listeners including: information on student recruitment and attendance, the focus of the program/event/activity, other related events or programs to which it might connect, the timing during the academic year when it occurs, any partnerships or connections with other organizations/groups/academic programs, and (if applicable) any relevant information or data on past assessments or evaluations. Contextual information on the assignment include an overview of the assignment itself including what exactly students are asked to do, what learning outcomes the assignment is designed to elicit, and how students are evaluated.

L n: jot down thoughts and questions but please do not interrupt the presenter, let them have their full time. You may ask clarifying questions at the end.

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- 1. What learning outcomes will students demonstrate with this assignment? How will students demonstrate the learning outcome(s)?
- 2. In what ways does the assignment need to be modi ed to better align with the desired learning outcome(s)?

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3. What exactly will a student be asked to do and what learning artifact or eviden5What exactly wirai1nf(What eeumodidu)r

In groups of no more than 5, each person/team will have an opportunity to either review their job description in alignment with learning outcomes and brainstorm possible assessment artifacts, or review job tasks for revision as an assignment with the group. In order for everyone to have an opportunity to give and receive feedback, a timed carousel process is used. Each round is designed to provide feedback and support to one person at a time. is means that in a group of 3 people, there would be 3 rounds and in a group of 5, there would be 5 rounds of review and feedback and/or design support. You will be a "presenter" for one round and a "participant" for the other rounds.

Each round is 25 minutes.

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Presenters will introduce the job description and unit-level and/or institution-level learning outcomes to which the job description will be aligned. Job task information will be shared such as length of employment, roles and responsibilities of students, and possible connections to learning outcomes of interest. Examples of typical work assignments will be presented to the group for consideration.

L ; jot down thoughts and questions but please do not interrupt the presenter, let them have their full time. You may ask clarifying questions at the end.

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Listeners will respond to what they have heard, taking turns asking questions, sharing thoughts, feedback, and thinking creatively about how to revise the job description to better align with the learning outcomes of interest or to make clearer connections between the job description and institutional learning outcomes. e purpose of the discussion is to help your colleague strengthen their learning outcome(s) alignment and determine assessment tasks in student employment, so please be constructive and collegial. Also, please mind the time and allow each participant the opportunity to contribute to the discussion. Discussions should address the questions on the feedback sheet.

n: listen carefully and respond to the inquiries. ink about alignment between the learning outcomes, the assignment, and evaluative criteria.

(5).

Everyone: Use the feedback form to give the presenter written feedback and suggestions. e presenter can use this time to write down notes about the learning outcome(s), assignment, and/or other thoughts and re ections from the conversation, along with outlining next steps for revision or additional feedback.

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- 1. What learning outcomes will students demonstrate through the course of student employment?
- 2. What associated job tasks lend themselves towards artifacts of student learning in relation to learning outcomes of interest? (Sample artifact ideas include an email exchange, an agenda, a re ection, a presentation, a student recruitment strategy for student organization, etc.).
- 3. What learning artifact or evidence of learning will a student have after completion of the assignment?
- 4. inking about the job description from the point of view of students, what questions or suggestions do you have about alignment with learning outcomes? How do students interpret the requirements or are they aware? (For additional resources on assignment prompts see Transparency in Learning and Teaching project.)
- 5. Is the task part of the job description and/or roles and responsibilities of the student employee? If out of alignment, does the job description need to be modi ed or does the learning outcome need to change to better re ect learning in student employment?
- 6. How will student work be evaluated for attainment of learning outcome(s)? What is the evaluative criteria (such as a rubric, checklist, or grading form)? Is the assignment prompt and learning outcome in alignment with how student learning will be evaluated?
- 7. Other questions, comments or suggestions.

About NILOA

academic of cers, and commissioned a series of occasional papers.





