Assessing Institutional Learning Outcomes: Implications for Vietnam Higher Education Institutions

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Abstract: Institutional learning outcomes indicate the knowledge and skills that all students regardless of disciplines from a specific university demonstrate. There are some researches about assessing learning outcomes at program level in Vietnam but no research about learning outcomes at institution level. This case study research shared experience from a U.S. comprehensive university to conduct assessment of institutional learning outcomes. The paper discussed the achievements such as successful two-year institutional assessment implementation, effective use of a national Valid Assessment of Learning in Undergraduate Education (VALUE) rubric to assess students’ performance, the use of technology in data analysis, and the best practices to communicate assessment results to multiple stakeholders to facilitate leadership decision making; the challenges such as technology, faculty engagement, the participation rate, validity and reliability; and improvement plans. Researcher also made recommendations for Vietnam HEIs to improve internal quality assurance for both quality improvement and accountability purposes.

Keywords: Institutional learning outcomes, achievements, challenges, quality improvement, accountability.

1. Introduction

Over the past several years, various individuals, organizations, and legislators have continued to express concerns about the quality of higher education. Those concerns have triggered legislation and requirements at the federal and state levels and by regional accreditors to assess and report on student learning (Bass, 2015 [1]; Jones, 2009 [2]; Nelson, 2014 [3]). The regional accrediting organizations identified and recognized by the Council for Higher Education Accreditation (CHEA) all include requirements related to assessing student learning outcomes for general education. The accreditors have requirements for articulating the outcomes as well as measuring and documenting student success (“Council for Higher Education Accreditation”, n.d.) [4].
Assessment of general education has been going on for years. According to Penn (2011) [5], one of the first, comprehensive assessments of general education was in the late 1920s. Major initiatives were undertaken in higher education assessment in the mid 80’s to early 90’s to assess general education and university is again seeing that demand for detailed, comprehensive assessment. With all the requirements, it is easy to lose focus of the reason for assessment and why university collect data, enter it into databases, and generate reports so that university can improve the learning and performance of students. Fletcher, Meyer, Anderson, Johnston, & Rees (2012) [6] stated universities conduct assessment to provides information about student learning, student progress, teaching quality, and program and institutional accountability.

There are numerous ways of conducting effective general education assessment. The Association of American Colleges & Universities (AAC&U), Valid Assessment of Learning in Undergraduate Education (VALUE) project and the resulting rubrics have been implemented by many Universities. The VALUE rubrics were developed as part of AAC&U’s Liberal Education and America’s Promise (LEAP) initiative (“About LEAP,” n.d.) [7]. One advantage of implementing the VALUE rubrics is that data and studies such as the Multi-State Collaborative to Advance Quality Student Learning (MSC) and the Great Lakes College Association Project to Advance Learning, to name a few, report their findings and share lessons they have learned through their implementation. A recent report, On Solid Ground (McConnell & Rhodes, 2017) [8], provides detailed information from a large number of institutions. The VALUE rubrics were piloted and are used by a diverse range of post-secondary education institutions including community colleges, regional comprehensives, and R1 institutions. These data sets allow us to benchmark our student performance with that of the collaborating universities. Brown, McGreevy, & Berigan (2018) [9] point out that higher education institutions have typically functioned in an autonomous and siloed culture when implementing changes. Various programs and offices have operated independently of one another. The concept of holistic, institution wide assessment can be somewhat of a challenge due to past practices and that autonomous nature. A cohesive framework and cooperation across campus are critical for effective implementation of general education assessment.

Similarly, accreditation is also a major driver for Vietnamese higher education institutions (HEIs) to provide evidence of student learning. The new standards of higher education accreditation for both institution and program level focus on assessment of student learning following Plan-Do-Check Act (PDCA) to make quality improvement (MOET, 2017, MOET, 2016) [10, 11]. Therefore, there is a need to create an internal quality assurance (IQA) to meet such requirements from external stakeholders. Still, IQA is still a challenge for many Vietnamese HEIs (Nguyen, 2018) [12] and quality assurance offices (Pham, 2019) [13]. There is a research from Hue University to share the experience to implement IQA from Asian University Network- Quality Assurance (AUN-QA) to assess learning outcomes at program level (Nguyen and Nguyen, 2017) [14] but no research has shared experience to assess learning outcomes at institutional level in Vietnam context. This case study shared experience from a comprehensive university in United States to conduct the assessment of student learning at institution level to support Vietnamese HEIs to improve quality of student learning and provide accountable evidence for external stakeholders such as accreditation.

2. Method

This research used case study as a major method to provide a rich description of the phenomenon (Yin, 1994) [15]. A case can be a person, a small group, a program, or an institution. As stated by Merriam (1998) [16], a
case study provides an in-depth description of a single instance, phenomenon, or social unit. Creswell (2014) [17] also stated that a case has a clear boundary and can provide an in-depth comprehension of the case. The first step in conducting a case study is to define the case.

The university’s assessment process explained here is from a regional comprehensive university in the Midwest of United States. Their Carnegie classification is Comprehensive Universities offering both undergraduate and graduate programs. The enrollment of the university is just over 12,000 undergraduate and graduate students. The general education program has always had the mission of providing students with foundational knowledge and skills, primarily in liberal arts and sciences, that encompasses all baccalaureate programs. A frequent observation made by faculty and students alike was that our previous general education program did not appear to be a program at all but rather a collection of unconnected courses. Our programs and the general education program were operating in that siloed type of environment and not functioning cohesively, particularly when related to assessment. For those reasons, university sought a framework to implement a holistic assessment approach which would allow us to assess the impact of our general education.

Like many universities, our previous general education program focused on input, in the form of courses and their specific competencies, and not on outcomes related perspective (Bruce, 2018) [18]. The courses were selected strictly by their alignment with the selected general education topic areas. Under our current general education program, courses must show how they align with and will meet the specific outcomes for the university general education program. Programs on campus can submit courses to the faculty senate general education committee for consideration of inclusion in the general education program. As part of that submission, they must include information on how they will meet and assess the prescribed outcomes. Courses are also reviewed by a general education committee for recertification and to ensure they are following the assessment plan and student artifacts align with desired outcomes.

This research tried to answer the following questions:
1. What are the assessment process of institutional learning outcomes?
2. What were the challenges and improvements the university have had?
3. What are the key achievements the university has made?
4. What are the strategies university use to sustain the institutional learning outcome system?

3. Findings

3.1. Assessment process of institutional learning outcomes

Assessment measures. In 2014, university updated our general education curriculum to include areas of understanding which comprise four key outcomes that include a total of ten competencies. To assess these competencies, the Valid Assessment of Learning in Undergraduate Education (VALUE) rubric (Rhodes, 2009) [19] was modified and applied across campus. This activity demonstrated the institution’s commitment to ensuring learning outcomes are achieved and that a degree reflects high quality, a goal of the Multi-State Collaborative (MSC). This effort also responded to a widespread objective of using standardized testing in higher education. Most importantly, the assessment of student learning using a modified VALUE rubric provided the opportunity for faculty to have conversations about improvement of student learning outcomes (Wehlburg, Carnahan & Rhodes, 2017) [20].

Assessment process. The university assessment system follows six phases of the assessment cycle: (1) plan and identify outcomes, (2) collect data, (3) analyze data, (4) share results, (5) identify and implement changes, and (6) assess impact of change (Kuh, Ikenberry, Jankowski, Cain, Edwell, Hutching
and Kinzie, 2015) [21]. The revised general education program serves student need and the public interest by ensuring students have strong foundational skills by providing a broad, enriched academic experience that both complements and supports their study within specialized disciplines. To capture the student learning of the ten general education competencies, the university has used three major assessment measures: The General Education Assessment (GEA) Exam, the Modified VALUE rubrics, and the National Survey of Student Engagement (NSSE). The GEA and Modified VALUE rubrics serve as the direct assessment measure of student learning outcomes and the NSSE serves as an indirect assessment measure of student learning outcomes. This paper only discusses the newly implementation of direct modified VALUE rubric.

In an effort to determine whether the teaching of the GE courses met the requirement of the new general education competencies, the university started working on an assessment plan and timeline for data collection. In 2015-2016, university conducted a series of planning meetings, with faculty teaching in the general education program, to collectively define the process for data collection. In the Fall 2016 semester, the institution provided face-to-face, as well as online training for all instructors on how to use the modified rubrics. It was determined that pilot data would be collected in the Spring of 2017 semester. Student artifacts for five competencies: written communication, oral communication, quantitative literacy, critical/creative thinking, and managing information would be collected. As this was the first time the university had conducted an institution-wide general education assessment, instructors of all courses that aligned to a specific competency were asked to voluntarily provide students’ artifacts for institutional assessment. Data from four competencies (Oral Communication, Quantitative Literacy, Creative/Critical Thinking, and Managing Information) were gathered in an excel template and the Written Communication competency was collected through an assessment management software (AMS). The purpose of this pilot was to ensure the assessment process was appropriate before collecting artifacts of the five competencies from all courses.

**Two-Year Timeline.** The data collection pilot was successful, therefore, from 2017-2018, the university implemented a two-year assessment plan for general education assessment (Table 1), using the course-embedded assessment (CBA) function in the AMS. Data was collected during the Fall semester, and in the Spring semester the results and opportunities for teaching and learning improvement are discussed and documented.

| Assessment and Evaluation Activity                                      | 2017-2018 | 2018-2019 |
|------------------------------------------------------------------------|-----------|-----------|
| Collect data/Evaluate data including the processes                     | Competency 1,2,3 & 5 | Competency 4 |
| Deliver report findings to constituents                               | x         | x         |
| Take actions where necessary                                           | x         | x         |
| Review the competency if necessary                                    | x         | x         |

**Table 1. Two-Year general education assessment timeline 2017-2018**

**Human Resources.** To support the assessment of the general education program, additional resources were needed and had to be devoted to the process. Our structure included administrative support and faculty input. The Vice Provost of Academic Programs and Services oversees the assessment activities. The university assessment coordinator is in charge of implementing the assessment process. The general Education Coordinator, a full-time faculty member with course release, supports the communication of the purpose of assessment,
assessment process, and facilitates the course-embedded assessment (CBA) training with university assessment coordinator to streamline the process and to increase the artifacts submission in the AMS. Both the assessment coordinator and the general education coordinator are non-voting members on the faculty senate general education committee.

**Data Collection.** Aligning several components of the general education courses, assessment process, and data collection is very intentional. The goal is to ensure courses maintain alignment with the competencies and that faculty can collect and report data with a minimal amount of additional workload. Any GE courses going through the recertification process need to demonstrate that the course learning outcomes and course assignments align with a specific GE competency. This ensures courses continue to align with the general education competencies and goals. All courses aligned to a skill-based competency are required to provide students’ artifacts from one assignment in their class. Faculty choose an assignment that meets all the dimensions in the modified VALUE rubric for university data collection. The intent is for faculty to utilize a normal or typical assignment that are currently implementing in their course and to use that for the institutional assessment. This authentic assessment does not create much additional workload for faculty as opposed to using an intentional assignment just for institutional assessment as a component of student learning in their course. Since assessment is embedded within all sections of the courses and is evaluated by the faculty member teaching each section, the assessment process has been streamlined.

**Advantages of Technology in Data Collection.** In addition to the faculty-centered and authentic assessment process, the data collection and data analysis from an AMS also streamlined assessment process. The first advantage was that it integrated with the existing learning management system (LMS) and enabled a relatively automated transfer of information into the AMS. Therefore, faculty utilize and grade the students’ artifacts using the LMS they are familiar with. As most faculty were familiar with LMS, this helped to encourage their participation. The second advantage of technology is the protection of confidential information. All data were loaded directly into the AMS and only people with specific privileges were able to access the data. The third advantage of technology was efficiency (e.g., time savings) in the data analysis, as the assessment software could run various reports. Consequently, the university could collect a large sample of students’ artifacts across multiple competencies in a year. This comprehensive data collection enabled the university to capture a more accurate and complete picture of student learning and facilitate actions for improvement when looking at the assessment results in the later step. The fourth advantage of using technology for data collection was to provide both faculty and the institution individualized assessment reports based on the needs.

**Assessment Results.** In AY 2017-2018, faculty collected students’ artifacts from 230 sections aligned with Competency 1 (Written Communication), Competency 2 (Oral Communication), Competency 3 (Quantitative Literacy) and Competency 5 (Managing Information). 57% (2858) of the artifacts had been assessed by the instructors and loaded into the AMS. For the remaining 43%, in some cases, faculty did not collect the data and in others, improvements in the assignments are needed for faculty to be able to independently score the artifacts. The goal is to have 100% of the artifacts scored. In the future, to continue to ensure sustainability of the assessment process, university will likely implement sampling of larger sections. Of the four competencies, Competency 3 received the highest response rate (76%) and Competency 2 received the lowest response rate (42%).
Table 2. Modified VALUE Rubric Response Rate 2017-2018

|                          | Written Communication | Oral Communication | Quantitative Literacy | Managing Information | Total |
|--------------------------|-----------------------|--------------------|-----------------------|----------------------|-------|
| Total Students           | 1610                  | 828                | 1218                  | 1330                 | 4986  |
| Total Responses          | 752                   | 350                | 924                   | 832                  | 2858  |
| % of Response            | 47%                   | 42%                | 76%                   | 63%                  | 57%   |

On average, 98% of freshman met the requirement, scoring one or above in the modified VALUE rubric. Of the four competencies, Oral Communication and Quantitative Literacy had a higher average score (2.4).

![Graphs showing response rates for Written Communication, Oral Communication, Managing Information, and Quantitative Literacy.](attachment:image.png)

In Spring 2018, the University Assessment Coordinator prepared the university GE Assessment report and shared it with several groups and committees across campus including Academic Council, department chairs, General Education Committee, Faculty Senate University Assessment Council (FSUAC) and the faculty group that has been involved in the data collection of Modified VALUE rubrics. The purpose of the meeting with academic council was to provide them with the assessment results and discuss the strategies to improve next year’s response rates using the Modified VALUE rubrics. The discussion with the GE Committee was to facilitate their use of assessment results in the...
recertification process. In addition to aggregated assessment results for the whole university, the assessment coordinator also provided the assessment report by competency. The faculty meetings were set up by the Vice provost, university assessment coordinator, and GE coordinator to share the results and ask for their feedback about the assessment process. One of the key and critical components of the assessment process remains a challenge; documenting actions for improvement from each competency.

3.2. Challenges encountered and improvements

Challenges encountered. After two-year of implementation, the university still has some challenges to overcome. The first challenge university encountered is the technology. Although it provides the ability to collect and analyze a great deal of information, some faculty had issues in the implementation such as being unable to create a link in the LMS, inappropriate data display or issues with artifact submission by students. The second challenge is the faculty interpretation of the modified VALUE rubrics. Although training about the modified VALUE rubrics was done before the data collection, some faculty still had a hard time determining and assigning the scores from the rubric to their own assignment, especially when the freshman scored one in the rubric still got the A grade in their course. The third challenge is the participation rate across the institution. Although more than two thousand artifacts were collected, it only accounted for 57% of population. Some faculty decided not to submit any artifacts from their course in the system. Some had challenges separating out the individual artifacts. The fourth challenge is the lack of infrastructure to engage faculty who are directly involved in the assessment process to discuss results of student learning effectively and to identity changes for quality improvement. Finally, university assessment results relied on one artifact or one assignment; therefore, it was sometimes questioned about the reliability of the results, a barrier in making appropriate changes for improvement.

Improvements: From the challenges encountered, in AY18-19, university prioritized three solutions to facilitate closing the loop in the assessment process. Acknowledging the value of faculty coming together to discuss student learning and pedagogy to identify opportunities to better support teaching and learning in GE courses is critical. The first improvement is to create a time and place for faculty to engage in deep, meaningful conversations about student learning and effective teaching. To facilitate this strategy, university established lead faculty for each competency. The major responsibilities of these faculty are to lead the discussion of the assessment results within their group, document the feedback and recommendations to improve the assessment process and possible actions for improvement. University provides a template with key components in the assessment cycle to facilitate the documentation of meeting minutes. The second priority is to improve the validity and reliability of student artifacts. University is currently providing training and workshops on “assignment design” and “norming” workshop series facilitated by university assessment coordinator and external presenters. In the following semesters, lead GE faculty in each competency will facilitate these trainings for their own group annually. These lead faculty will serve as facilitators to promote the professional development opportunities and to coordinate faculty meetings to discuss and review actions taken in response to learning outcomes data. The third improvement the university is working is the additional requirement of utilizing assessment data in the GE recertification. Previously, the GE committee ensured the course learning outcomes and course assignments aligned with GE competencies. The current practice is to ensure student performance meets the expectation of course learning outcomes and the course assignment.

3.3. Key achievements

The first advantage of this assessment process is the consistent assessment process for
all GE competencies, which would benefit the accreditation-related efforts. Our goal is to create processes and strategies that make assessment practice and assessment visible to all faculty. This is the first-time the university conducted an institution-wide authentic assessment following the national authentic assessment, VALUE rubric. The intent is to capture the 21st century skills that all graduates need to demonstrate by their graduation. To facilitate the implementation, the university sets up GE assessment plans and a two-year timeline to collect data, provides multiple assessment related trainings to faculty throughout the academic year, and utilizes a central AMS system to store and analyze assessment data.

The second advantage of this process is the widespread faculty engagement in the assessment process from assignment design to pedagogy, data collection, and discussion of assessment result. Two features of this process, personnel work and technological tools, distribute the responsibility for assessment of student learning outcomes so that no one person is solely responsible for the assessment. Multiple coordinators at different levels (university, college, department, and competency) facilitate faculty engagement in meaningful discussion of assessment findings and regular conversations about teaching practices. Most importantly, faculty can experience assessment activities as opportunities for their own learning and professional growth when attending the annual training about teaching and learning improvement. At the same time, lead faculty serve as the leaders in their group to facilitate closing the loop discussions.

The third advantage of this assessment process is that it also allowed individual faculty to evaluate their own practice. After attending meetings with the group to discuss assessment results within their competency, faculty are encouraged to run the CBA report, watch a video on the assessment website on the strategies of interpreting assessment data, and then fill in the GE Assessment Self-reflection sheet (Appendix A). This is a meaningful process and allows faculty to determine the strengths and weaknesses of student learning for their own course, then decide what actions they can make for improvement. Our goal is not to evaluate faculty assessment efforts but to assist them in using assessment results to evaluate their own practices. It is hoped that multiple, minor changes systematically implemented over time can produce substantive impact on teaching and learning (Stanny, Gonzale and McGowan, 2015) [22]

3.4. Sustainable strategies

As short-term goals, the university has three plans to improve the assessment of the GE program. The first plan is to improve the alignment of student learning outcomes at different levels (university, GE, and academic programs) to facilitate skill-based assessment at the senior level. Senior level data not only ensures students have had opportunities to improve, practice, and develop skills related to the competencies, but allows us to provide evidence of student growth over time. The University Assessment Committee will work with programs to ensure appropriate skills are embedded in their program learning outcomes. A pilot will be implemented the Spring of 2019 in which faculty teaching capstone courses will use the modified VALUE rubric to assess student performance. For one capstone assignment, faculty can use it to assess multiple skills. Faculty will decide which skills the capstone would align with and select the appropriate rubric(s). The pilot of capstone assessment will facilitate the university plan to fully implement assessment across the entire academic timeframe of students. The second plan is to improve the validity and reliability of assessment results by encouraging more meaningful actions for improvement. University will build an inter-rater reliability system that includes a second faculty assessing sample artifacts of the five competencies. Statistical power will be tested to have representative and powerful sample. Finally, the university will consider having a GE Assessment
Committee to discuss and continue to improve the GE assessment process. Right now, the bulk of the GE assessment activities are still initiated and overseen at the academic administrative level. To transition the assessment functions to the GE committee or formation of a committee specifically addressing GE assessment, will transfer some of the ownership to faculty and help with dissemination of information. This committee can also support with inter-rater reliability as well as documentation of discussions and recommendations for annual assessment reports.

To sustain the culture of continuous improvement, the university needs to maintain some long-term strategies. The first strategy is to provide continuous professional development opportunities for GE faculty, especially the adjuncts. University continues to have faculty who seek to determine whether the pedagogical changes they make in the course will produce improvement in student learning. Those faculty wish to pursue research and scholarship opportunities related to assessment based on those findings. These efforts can lead to the creation of an assessment network where faculty can design and develop a common course-based assignment for courses. The second strategy to build the culture of assessment is to have annual teaching and learning fair, poster sections, workshops, or thinktanks where faculty facilitate sections on assessment results and implications. The major goal of these events is to enhance faculty understanding of assessment process, facilitate the use of data, evaluate the entire assessment cycle and determine whether the assessment process leads to real changes in student learning. The final strategy is to engage student in GE assessment process. Although the university administers the NSSE, it is not administered annually. To triangulate assessment data from both direct and indirect assessment measures, instructor can ask students to reflect in class and use that feedback for indirect authentic assessment evidence in addition to the student assignment artifacts (Hutchings, 2018) [23]. That feedback could include qualitative data which our process has not yet formally included.

4. Conclusion

As discussed in the literature review, there are limited research about the implementation of IQA in Vietnam context and there is no specific research about assessment of institutional learning outcomes. This case study provided detailed steps by steps from choosing the assessment measure to analyze the data to facilitate the implementation for other institutions. In addition, the sharing of the challenges this case encountered, the achievements it has made and the strategies the university continue to sustain the IQA system can be good examples for other institutions. Vietnamese HEIs can implement this assessment process for quality improvement and accountability, especially the current accreditation standards encouraged institutions to provide quality of student learning.

First, Vietnam HEIs should look at the institution mission to set up appropriate institutional learning outcomes (ILOs) for the first sixty credits in the first two years. The best practice for ILOs is to look at the list of 21 century skills that AAC&U developed and choose the necessary skills for Vietnam context. Second, institutions require courses in the first two year curriculum to align its courses to appropriate ILOs. To ensure the alignment, the course learning outcomes need to address the ILOs language in the course objectives. Third, Vietnam HEIs should choose a reliable assessment measures to collect data. VALUE rubric is an initiative in U.S. assessment practice to move away from standardized exam to authentic assessment, using the authentic students’ artifacts to make improvement of student learning. Some U.S. HEIs just used the available assessment rubric to collect data. Some adopted the language in the rubric. Others used VALUE rubric as a framework to build their own rubric. Vietnam HEIs can choose appropriate practice to implement. Researcher recommended
using the available rubric then make changes later if there are any issues.

Fourth, one of the keys to engage faculty is to provide guidance and understanding of the entire assessment process, why it is being undertaken, and what the outcomes of the process will be used for. Vietnam HEIs should provide professional development opportunities for faculty teaching the courses on how to design the assessment to align with the rubric, how to read, integrate and use the rubric to score students’ assignment and how to provide consistent scoring across the courses. This is a very significant important step to avoid the challenges in validity and reliability in the data collection that this case study encountered. Figure 2 provides additional information on how Vietnam HEIs can share the assessment results with multiple committee to close the assessment loop for quality improvement of student learning. Lastly, Vietnam HEIs should have a meta-assessment, assessing the assessment process in place such as peer review of assignment design to ensure the validity of the assignment, calibration to ensure the reliability of the students scores across the multiple courses and ask for faculty perceptions about the assessment process.

![General Education Assessment Process](image)

**Figure 2. Institutional learning outcomes assessment process.**

These practices will help institutions to figure out the strengths and weaknesses in the process to make improvement and most importantly, provide evidence for institutions to allocate appropriate resources to improve the weaknesses. The implementation of this case study totally aligned with the suggestions from eight case studies supported by UNESCO that IQA is based on the national accreditation requirement and international best practice (Martin, 2017) [24]. This case study assessment of ILOs demonstrated the four key components of PDCA required by Vietnam national accreditation in higher education and the
updated assessment initiative from U.S. Further research can be how a Vietnamese university learn this process and implement successful in Vietnam context.

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Appendix A

General Education Assessment Self-reflection

Competency:

Note: Please do not provide individual information in the self-reflection.

How does the student learning in your course, based on the CBA data, compare with the institutional assessment results? (Benchmark)

What did you learn from the individual course assessment result? Did you find any common patterns occurring in your courses?

What are the strategies you implement in class in order to maintain and support student learning?

If possible, what new strategies, materials, or pedagogy will you implement in this section to better support student learning?

Thank you for your feedback!