Purpose, Framework, and Method for Assessment

This report documents the work of many individuals and programs across the university to conduct an assessment of student learning outcomes for the Mason Core curricular program. Although there has been ongoing assessment of various aspects of the Mason Core for more than 30 years, this was the first attempt at a large-scale assessment of learning by direct review of student coursework. This strategy was developed to align with best practices in higher education assessment and facilitate faculty engagement throughout the process.

Purpose for Assessment

Assessment is the systematic process of collecting, evaluating, and using information to determine how well we are meeting our goals. Assessment informs meaningful dialogue and decision-making about how the university can improve its programs and services to support student success. Assessment can help faculty improve their own teaching practice and make informed and collaborative decisions about the curriculum. Assessment and the use of results for improvement are required for Mason's regional accreditation with the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC); specialized accrediting agencies such as ABET and AASCB; and the State Council of Higher Education for Virginia (SCHEV).

Assessment Framework

Guiding Questions and Level of Analysis

This assessment focused on addressing two substantive questions:

- To what extent are students achieving the general education (Mason Core) learning outcomes?
- How well are Mason Core courses designed to help students to achieve the learning outcomes?

Additionally, because the assessment strategy used locally developed tools for the first time, it was important to ask a methodological question:

- How effective is a common rubric in assessing learning of broad outcomes across courses and disciplines?

Faculty shared materials and student work samples from course sections to support a *program-level* assessment. The assessment focused on understanding student learning outcomes across courses in a category, and was not an evaluation of any individual course or instructor. Although materials were collected at the end of a semester and the review completed in the

following semester, it is hoped that faculty consider this to be a form of formative assessment; the information from this assessment should be used to make ongoing changes to the Mason Core as well as course curriculum. The work should also be repeated at regular intervals to promote an ongoing assessment process.

Collaborative Process

The assessment strategy was led by staff in the Provost Office in collaboration with Mason faculty, course coordinators, and department chairs. Faculty have been involved in all stages of this project:

- **Planning:** Chairs identified key faculty, such as course coordinators and leaders for Mason Core courses to share information about their courses and students, identify questions and concerns, and join working groups to develop assessment rubrics. Faculty working groups assisted with planning, selected and developed assessment tools, and provided important disciplinary guidance for the assessment
- **Assessment Activities:** All faculty teaching Mason Core courses were encouraged to participate in the pre-assessment professional development workshop, and were expected to submit a portfolio for their course during the assessment semester. Faculty who participated in those activities were awarded a stipend or professional development funds for their efforts.
- **Reviewing:** All faculty teaching in the Mason Core were invited to participate as reviewers of student work samples. Reviewers were trained on reading student work against the relevant rubric, and received compensation for their efforts.
- **Post-Assessment:** All faculty were invited to participate in a post-assessment meeting in the semester following the assessment. In these meetings, faculty reviewed the results, discussed implications for their courses and programs, and made recommendations for revision.

Assessment Method

VALUE Rubric Assessment

The VALUE model was chosen for the Mason Core assessment. VALUE (Valid Assessment of Learning in Undergraduate Education) rubrics were developed by the Association of American Colleges and Universities (AAC&U) beginning in 2008 to provide college campuses with tools to conduct direct assessment of student learning using authentic student work. The rubrics were developed to assess learning over the course of the college experience, and offered detailed developmental milestones for 16 sets of essential learning outcomes. Mason has used the Critical Thinking VALUE Rubric (2009) to assess student work several times since 2010[1].

[1] See Critical Thinking Trends 2010-2014, https://masoncore.gmu.edu/assessment/assessment-results/

VALUE rubrics have been increasingly used in higher education as an authentic, evidence-based approach to assess key learning outcomes across diverse institutions and student populations (McConnell & Rhodes, 2017). Rubrics communicate the expectations for learning to students, and provide a framework for faculty to guide course and curricular decisions. Rubrics have the potential to serve as institutional frameworks for teaching and learning across disciplines (National Leadership Council for Liberal Education & America's Promise, 2008).

Each VALUE rubric identifies key learning outcomes for each area (e.g. critical thinking) and provides four performance indicators for each outcome. The performance descriptors are intended to span a full college experience, from first-year through capstone. AAC&U acknowledges that "learning is often messy" (McConnell & Rhodes, 2017, p. 14), and rubric assessment is imperfect. This model allows the rubrics to be used for students at all levels and across many kinds of work products, thus capturing much of the "messiness". Reviewers are trained to reach agreement on the performance of each learning outcome as evidenced in each student sample. AAC&U claims high content and face validity of its rubrics (Rhodes, 2016), as well as moderate to high reliability ratings (Finley, 2012; McConnell & Rhodes, 2017). Gray, Brown, & Connolly (2017) established the validity of the Quantitative Literacy rubric for measuring student performance for signature projects (typically, graduating seniors), and confirmed the importance of intensive norming/calibration training to insure high inter-rater reliability.

In 2017, AAC&U, in collaboration with the State Higher Education Executive Officers association and the Multi-State Collaborative, published a report of findings from a large-scale assessment using the VALUE rubrics for written communication, quantitative literacy, and critical thinking (McConnell & Rhodes, 2017). The study focused on data from the review of more than 21,000 work samples from 92 public and private two- and four-year colleges and universities across twelve states. Reviewers received extensive online training, both synchronous and asynchronous, and engaged in a rigorous norming process to insure valid ratings.[2] This study represented the first time that the rubrics were used on this scale, and the data can be used to benchmark local assessments. In this report, data from 4-year public institutions in the McConnell & Rhodes study are provided as comparison for Mason assessments in critical thinking, written communication in the major, and quantitative reasoning.

Mason faculty chose to adopt the VALUE rubrics for critical thinking, written communication, and quantitative reasoning. The faculty working group for Global Understanding chose to adapt the Global Learning VALUE rubric, creating a modified version that they thought better aligned with the Mason Core outcomes. For Mason Core categories for which there was no existing VALUE rubric (Arts, Literature, Social and Behavioral Sciences, Natural Sciences, Western Civilization/World History, and IT & Computing), working groups developed rubrics

[2] The author of the current report, Stephanie Foster, participated as a reviewer for the Critical Thinking VALUE Rubric in the McConnell and Rhodes study.

based on the principles and patterns of the VALUE rubrics. This strategy contributed to a sense of consistency across the Mason Core program.

In a few cases—specifically, English Composition and Oral Communication—VALUE rubrics were not used, as there were existing assessment tools that aligned with disciplinary and course-specific outcomes. However, these tools were developed with the VALUE rubrics in mind, and can easily be mapped to the VALUE rubrics for Written Communication and Oral Communication, respectively.

Assessment Process

The assessment cycle featured three main emphases: assistance to faculty with assignment design and alignment to support Mason Core student learning outcomes, direct assessment of student work, and use of results for improvement. There were five stages:

1. **Communication and Planning**
    a. Communications were handled through in-person meetings at key leadership meetings, and through advance emails with deans, directors, and chairs. A website provided detailed information on all aspects of the initiative.
    b. Working groups were created 1-2 semesters in advance to plan for each assessment. Working groups comprised Mason Core faculty, course coordinators, and subject librarians. Working groups created rubrics and provided disciplinary expertise.
2. **Data Collection**
    a. Mason Core faculty were asked to participate if they were teaching in the assessment semester. Faculty were asked to:
        i. participate in a 2-hour pre-assessment workshop at the beginning of semester
        ii. prepare a course portfolio comprising the syllabus, one assignment, and 3-5 randomly selected student work samples
    b. Faculty submitted assessment materials through a secure Blackboard organization. Periodic reminders were sent through Blackboard at key times during the semester. All materials were due by the last day of the semester.
    c. Faculty were provided with randomized enrollment lists with identified students whose work was requested for use in the assessment. Faculty were asked to submit the samples with student names.
3. **Review of Student Work**
    a. Work samples were coded, removing student names as well as course and instructor information.

b. Faculty volunteer reviewers were given instructions and a pre-review session assignment.

c. Reviewers convened for a full day (9:00 to 5:00), including a 3-hour norming/calibration session, lunch, and five hours to review student work. Ratings were collected using a Qualtrics online form.

d. Inter-rater reliability was assured for each of the Mason Core reviews through an intensive reviewer norming process. Each sample was reviewed twice. Samples that received discrepant scores were reviewed by a third trained reviewer, and the outlier was replaced.

4. **Data Analysis and Reporting**

   a. Rubric data were merged with student demographics and course information. Analyses were conducted based on the appropriateness of the data and in response to faculty requests.

   b. Brief reports were created to share initial results.

5. **Post-Assessment Discussions**

   a. Faculty were asked to participate in a one-hour post-assessment meeting in the semester following the assessment. Meetings focused on results of the assessment, and use of results to promote improvement.

   b. Targeted meetings were held with faculty groups, academic units, and the Mason Core committee to discuss how to use results for curricular improvement.

Data Used in the Assessment

Both direct and indirect assessment methods were used to address the substantive questions. Data supporting these methods were collected and analyzed for this report, and are outlined below. Table 1 outlines the assessment questions and supporting data used in this report.

Direct Assessment

1. **Course Portfolio**: Course syllabus, an instructor-selected assignment prompt (submitted through Blackboard)
2. **Work Samples:** 3-5 randomly selected individual* student work samples from the assignment submitted in #1

Indirect Assessment

* Team-based samples were collected but not used in this assessment; a separate method and analysis will be necessary.

3. **Student Survey:** End of semester survey administered online and focusing on student perception of their learning in the course
4. **Faculty Survey:** Anonymous online survey administered after participation in a key assessment activity, use of assessment experience, changes made to instruction, and attitudes about assessment
5. **Banner Course Data:** Student- and course-level data used as analytical variables

Table 1. Assessment Questions and Strategies with Supporting Data

Question	Sub-Questions	Assessment Strategy and Data Used	Level of Analysis
How are courses designed to address the Mason Core learning outcomes?	How well do the syllabus, assignment descriptions, and activities support students in achieving the learning outcomes?	Syllabus and assignment review	By category
	How well does the course syllabus communicate to students the Mason Core learning outcomes?	Syllabus review	By category
To what extent are students learning?	How well are students performing on the learning outcomes?	Student work samples	Aggregated student performance data; analysis by key demographic variables
	What are students' perceptions of their own learning?	--MC Student Survey --Graduating Senior Exit Survey relevant items	--by category --disaggregated as applicable
How are faculty using assessment experience to improve instruction?	How are faculty using their experience in faculty development workshops, rubric development working groups, review sessions, and portfolio submission to improve their teaching practice?	Mason Core Faculty Participant Survey	Summary
Information about Mason Core courses	Courses (5-year trend data: AY15-19) • Number of courses and sections in each category • Course enrollment • Final grades distribution • DFW rates	Banner Course Data	By category Disaggregated by school/college, department, or course as appropriate

	Students: • First-time Freshman/ Transfer admits • Gender • Race • Major • Course Grade	Banner Course Data	Used as analytical variables for specific analyses