

Indirect Measures of Student Learning

Why use indirect measures of student learning?

- *To complement direct measures.*
- *To provide evidence of subsequent success, satisfaction, and value added.*
- *To obtain information based on stakeholders' perspective (students, employers, transfer institutions, alumni, etc.)*
- *To provide evidence of validity of learning outcomes direct assessment methods and results.*

How are indirect measures used?

1. *Identify common learning outcomes or competencies students are expected to attain in courses, course sequences, and/or programs.*
2. *Establish program of systematic assessment using indirect measures that are most appropriate to discipline or program and that complement direct measures used.*
3. *Build in systematic review by discipline/program faculty and include appropriate stakeholders.*
4. *Use the review and results to revise curriculum and instruction as indicated.*

1. Curriculum Mapping

Curriculum mapping charts learning outcomes across courses and co-curricular activities. The maps then provide assurance to the disciplines and the college that, students will have ample opportunities to attain the expected outcomes. The maps assume that students will take specific sequences of courses if enrolled in specific programs and/or select from the general education menu of courses to complete the requirement.

More information about curriculum mapping at MDC is available at:
<http://www.mdc.edu/learningoutcomes/>.

2. Syllabus Analysis

Syllabus analysis is an especially useful technique when multiple sections of a course are taught by a variety of instructors or across campuses. It provides assurance that each section will cover essential points without prescribing the specific teaching methods to be used in helping the students learn those objectives.

3. Course Progression and Success

Tracking the performance of students in the next course in a defined sequence is a useful way to determine how well competencies have been mastered. Assuming that curriculum is aligned

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well so that the competencies of the first class meet requirements for the second, this method can provide relevant information about how much students are really learning. It is particularly informative if the performance of students who tested directly into the course is compared with the performance of students who progressed from the previous course in the sequence.

Recent reports prepared by Institutional Research showing these data are available at:
<http://www.mdc.edu/ir/iremployees/curriculum2.htm>

4. Transfer Student Success by Discipline/program

Information about transfer student success in upper division courses by discipline can be used to assess the preparation provided by the lower division curriculum and the extent to which students attain expected learning outcomes prior to transfer. It is particularly helpful when transfer student performance is compared to the performance of native State University System (SUS) students who received their lower division instruction at the university.

Recent reports prepared by Institutional Research showing transfer student success are available at: <http://www.mdc.edu/ir/iremployees/spotlt.htm>

5. Job Placement Rates

Job placement rates by program can provide evidence of the relevancy of program curriculum as well as student attainment of expected learning outcomes.

Completion and placement data by program are compiled by Institutional Research and are available at: <https://www.mdc.edu/ir/iremployees/programind.asp>.

6. Perkins measures for career and technical education programs

The Perkins technical skill attainment measure provides evidence that students have attained adequate skill levels in A.S. and career certificate programs. In addition to evidence provided by licensure or credentialing exams, the college can substitute grade point averages of 2.5 or higher or occupational completion points for the exam results through 2010.

Perkins performance measures are compiled by program by Institutional Research and are available at: https://www.mdc.edu/ir/iremployees/PerkinsMeasures_200708_Report

7. Student Surveys

Student surveys have become increasingly important tools for understanding the educational needs of students. When combined with other assessment instruments, many departments have successfully used surveys to produce important curricular and co-curricular information about student learning and educational experiences. Students are asked to reflect on what they have learned and how much the College has contributed to their abilities in specific general education

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areas in order to generate information for program improvement. Through this method, we can gain insight into how students experience courses, what they like and do not like about various instructional approaches, what is important about the classroom environment that facilitates or hinders learning, and the nature of assignments that foster student learning. For a cohort of students, pre/post surveys provide valuable information about students' perceptions of their own learning gains while enrolled.

The Graduating Student Survey at MDC includes learning outcomes questions and is available at: <https://www.mdc.edu/ir/iremployees/RR2008-04R.pdf>

MDC also participates periodically in the national Community College Survey of Student Engagement (CCSSE). The most recent results grouped by college learning outcome are available at: <https://www.mdc.edu/ir/iremployees/IC2007-09C.pdf>. A series of reports were prepared using CCSSE data and results from the companion faculty version. To peruse the list of reports, click here: <https://www.mdc.edu/ir/iremployees/ie2.htm>

The Honors College at MDC administers pre/post self-assessments of learning outcomes to entering and graduating students. For information about this approach, please contact Institutional Research or the Honors College Dean or Directors.

8. Alumni Surveys

Alumni surveys are useful assessment tools for generating data about student preparation for professional work, program satisfaction, and curriculum relevancy. As an assessment supplement, alumni surveys provide departments with a variety of information that can highlight program areas that need to be expanded or enhanced.

The Alumni Survey at MDC provides information from the students' perspective about their MDC education and is available at: <https://www.mdc.edu/ir/iremployees/RR2008-01R.pdf> with breakdowns by Schools available at: <https://www.mdc.edu/ir/iremployees/RR2008-02R.pdf>

9. Employer Surveys

Employer surveys can provide information about the curriculum, programs, and students that other forms of assessment cannot produce. Through surveys, programs traditionally seek employer satisfaction levels with the abilities and skills of recent graduates. Employers also assess programmatic characteristics by addressing the success of students in a continuously evolving job market. The advantages in using employer surveys include the ability to obtain external data that cannot be produced on campus, and the responses are often useful to help students discern the relevance of educational experiences and programs.

For more information about Employer Surveys please contact Institutional Research.

10. Student Focus Groups or Exit Interviews

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Focus groups and exit interviews can yield rich information about student learning, academic experiences, and opinions about the curriculum and instructional methods.

For example, the Director of Enrollment Management and Institutional Research conducted a series of focus groups with students in college preparatory English and reading, mathematics, and EAP classes. Students were asked to reflect on difficulties they experienced in these classes and how the College and faculty could help them be more successful in learning and meeting course objectives. In addition, focus groups were conducted with students who had transferred to FIU and University of Miami.

For information about focus groups and/or exit interviews at MDC, please contact Institutional Research or the Director of Enrollment Management.

11. External Reviewers

Peer review of general education and academic programs is a widely accepted method for assessing curricular sequences, course development and delivery, and the effectiveness of instruction. Using external reviewers is a useful way of analyzing whether student achievement correlates appropriately with departmental goals and objectives. Recommendations initiated by skilled external reviewers can be instrumental in identifying program strengths and weaknesses leading to substantial curricular and program improvements.