

INFORMATION LITERACY

Annual Report

Creating Relevance Using Assessment Results

May 2016



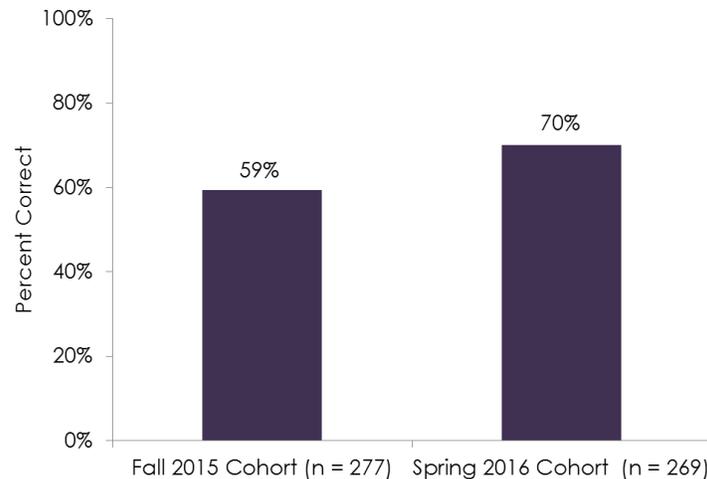
Anxiety around the Madison Research Essentials Skills Test (MREST) is misplaced. Analysis of students' performance on the test demonstrates

- JMU undergraduate students do not arrive at the university with the set of information literacy skills taught in the first year
- JMU undergraduate students retain information literacy skills between first-year and sophomore level
- the MREST reveals student readiness and predicts student persistence at JMU

The general education program is a unified program with a limited number of courses, but there are only two places where all students have to walk through the same door. The MREST is one of two common general education experiences for all JMU students. Information literacy represents the closest we've come to closing the loop through use of assessment findings to improve intervention.

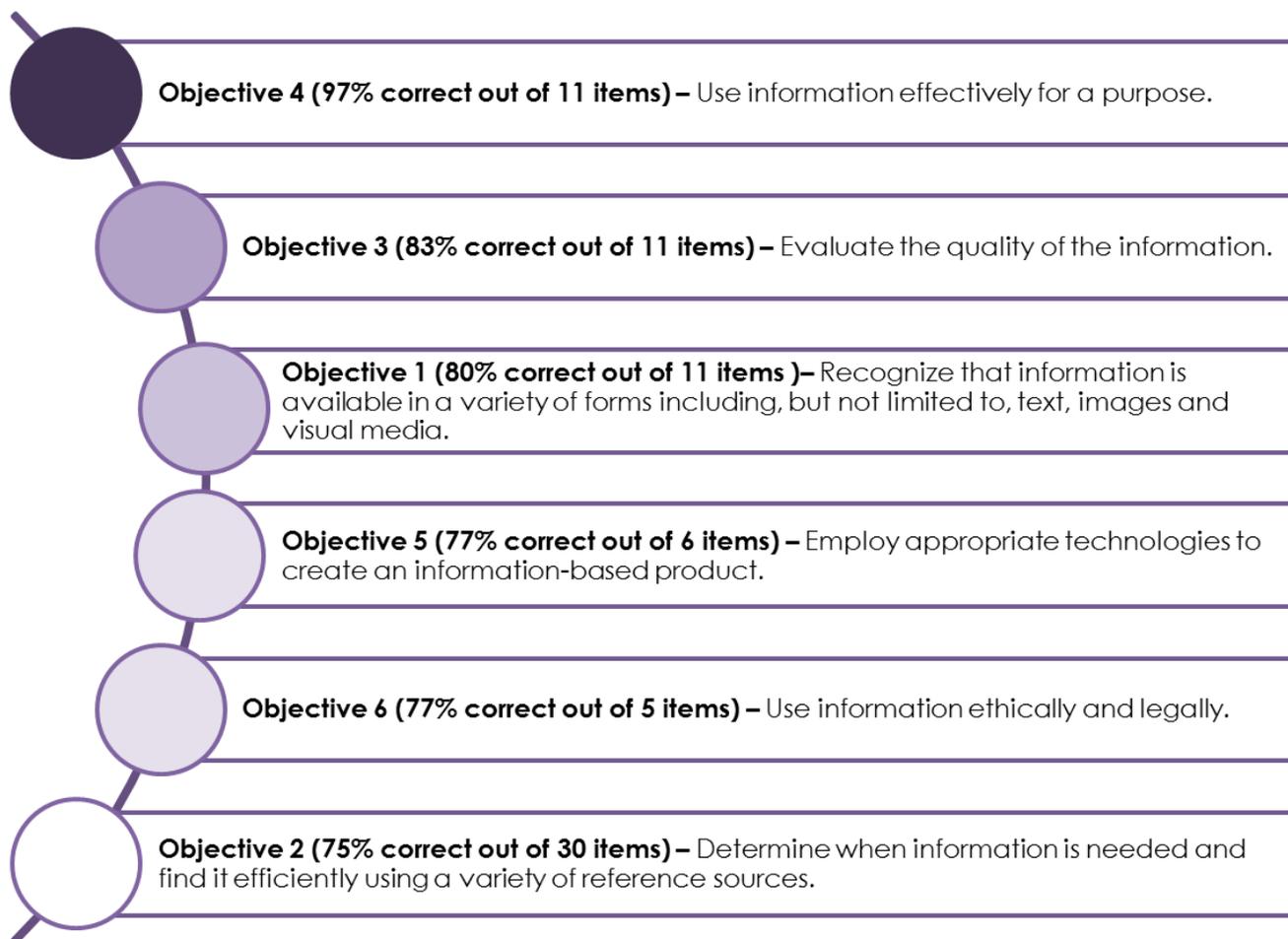
For the past four years, JMU has assessed information literacy using a JMU-developed multiple-choice computer-based test, the MREST. All entering 2015 students (first-year and transfer students without associates' degrees) were required to demonstrate information literacy competency by earning a passing MREST score prior to the 2016 Spring Break deadline. Students prepare for the test by completing a set of tutorials (Madison Research Essentials Toolkit) available on the JMU Libraries' website. Additionally, students in the basic human communication course are provided exercise sets with sample questions to ensure achievement of the required skills.

Do JMU students arrive with and retain information literacy skills?



The InfoCore is a 30-item measure of information literacy that consists of items from the Madison Research Essentials Skills Test.

How do JMU students perform on the information literacy competencies?



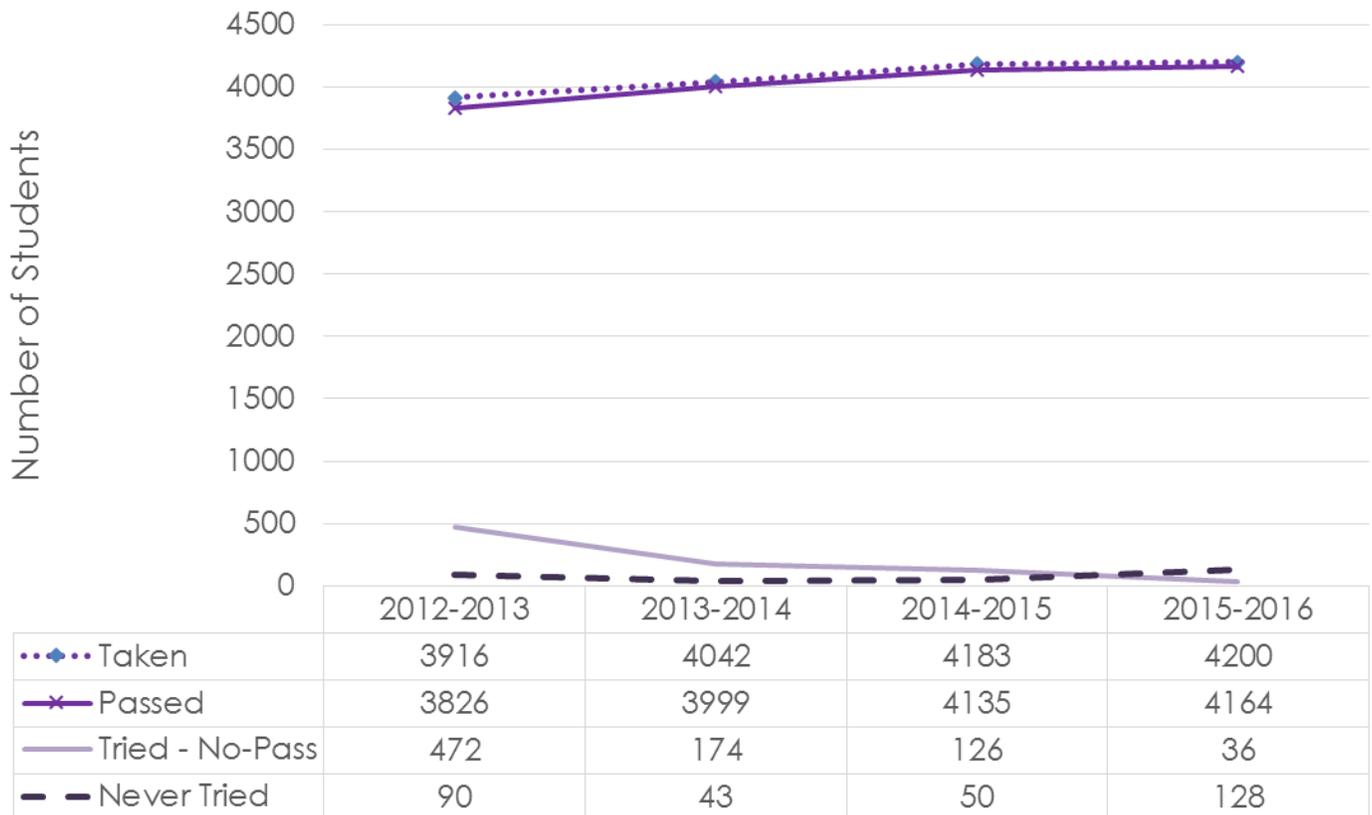
As a university that values liberal education, JMU is attending to national discussion on student learning outcomes. In 2014-2015, the Association of College and Research Libraries (ACRL) adopted a new information literacy framework. The ACRL acknowledges that many schools, including JMU, will continue to use the older standards for 2016-2017. Discussions are underway to consider the new ACRL framework for our program.

The student learning objectives, which have not changed since 2014, are ordered above by student competency on the MREST. However, it is important to note that the test does not offer balanced coverage across the six objectives. This is due, in part, to the rigor of the test development and analysis process. Work has been ongoing to balance the number of items per objective. New items are written each summer and are beta-tested (non-scored) for an entire year to ensure reliability and content validity of students' scores on the test. It is possible that complaints about individual items may be directed towards beta items that are not contributing to the students' total score.

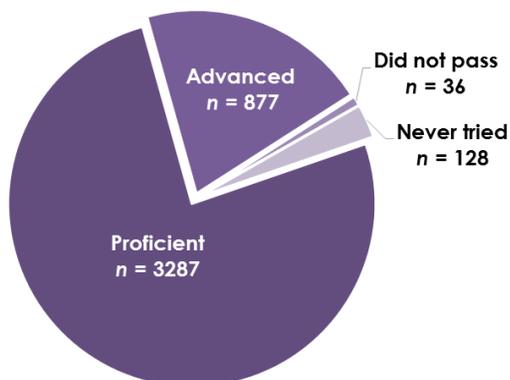
Students often ask "How many questions do I have to get right to pass the test?" Because the test is unbalanced (i.e., some questions count more than others), there is not an answer to that question. Focus on on a single question is misdirected – rather, the focus needs be directed away from individual items and toward mastering the skills on the feedback scoring sheet. See previous years' reports for a copy of the sample score sheet.

Are JMU Students completing this requirement?

First-Year Student Trends Taken, Passed, No Attempt Over Time



Cluster One celebrates JMU students' information literacy competency



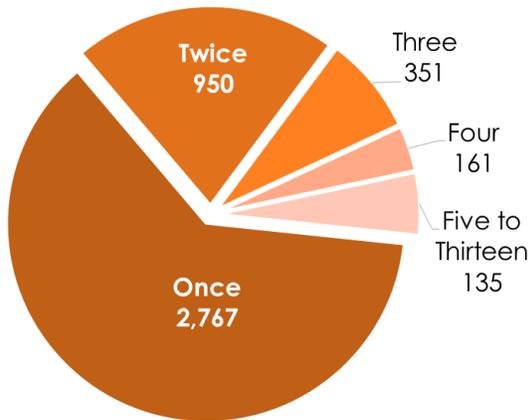
We applaud the librarians' diligence in constant revision of the Madison Research Essentials Toolkit (MRET). By closing the loop between the intervention and the test, we are seeing fewer and fewer students who are incapable of passing the MREST.

99% students pass the MREST

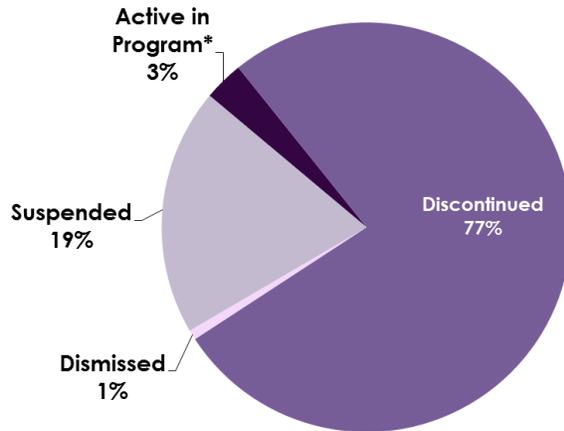
The number of students who did not *attempt* the MREST this 2015-2016 year ($n = 128$) increased from 2014-2015 ($n = 50$). We can only speculate why, but see no reason to dedicate additional resources. We will continue to monitor the trend.

How does the MREST relate to student preparedness and retention?

Number of Attempts to Pass the MREST (2014-2015)



What is the current status of the 128 students who did not pass the MREST (2014-2015)?



85% passed on the 1st or 2nd attempt.

*Although the SA system indicates that these students are active, they have not taken courses at JMU since 2015.

The majority of JMU students pass the MREST on their 1st or 2nd attempt. Anecdotally, faculty and students report those who use the *JMU Research Essentials Toolkit* – videos and exercise sets – pass on their first attempt. As seen in the Infocore graph on page 1, incoming first-year students (Fall Assessment Day) without the interventions are not able to pass the test.

Students who did not pass the MREST in 2014-2015 did not return to JMU in 2015-2016. Inordinate attention paid to complaints about the difficulty of the instrument is a waste of administrative energy. MREST items that are embedded into the SCOM 100-level course final examination are some of the easiest items on the test. It may be because students are already familiar with the content, have demonstrated mastery, and because the final examination is a high-stakes test. Moreover, the fact that most students pass the MREST on their first attempts suggests that JMU could increase the rigor of the test.

Results consistently indicate that the vast majority of students are fully capable of passing the MREST on the first or second attempt. As noted in the graphs on preparedness and retention, students who attempt and do not pass, or never attempt, do not stay at JMU. Persistent complainers (students, advisors, and faculty) who challenge the difficulty of the MREST are speaking for students who likely do not have the skills JMU expects of its students.

Note. Although the data above are from the 2014-2015 academic year, the 2015-2016 data will not be available until registration closes for Fall 2016.

Information Literacy by the numbers

Competency

99% students pass the MREST

21% students passed at the advanced level

88% students passed the test *before* the Spring 2016 deadline.

239 out of all continuing JMU students still need to meet the standard

43 number of transfers students admitted prior to January 2016 who still need to pass the MREST

1.86 average number of attempts to pass

0 returning 2015-2016 students who did not pass the MREST in 2014-2015

Value added

11% points higher score for sophomores compared to 1st-year students on A-day information literacy (Info-core)

Resources used

2-16 February is the month with the heaviest lab use

14 tutorials cover **77** minutes of video content

72 exercise set questions are embedded in SCOM course materials

96 students attended MREST Communication Resource Center workshops

172 MREST tutoring sessions in the Communication Resource Center

180 General Education Student Conference student presentations in Rose Library

7684 number of MREST attempts between September and March

42243 views of the toolkit tutorial videos

Ongoing Improvements

0 diversity barriers identified by DIF studies/think-alouds when examining scores of International and domestic students, despite mean differences between the two groups

4 new policies for computer based testing – honor code, talking, electronic device, and civility

5 number of videos added to the toolkit in 2015-2016

6 out of 16 beta items made it onto the operational MREST

First steps toward integration

Ideally, all elements of the general education program should work together to improve student learning. The MREST is a vehicle that allows JMU to integrate assessment tasks, examining learning objectives across the cluster and, potentially, the program. The MREST provides the opportunity to examine how first-year students longitudinally extend their skills. This year, the MREST piloted questions that map to both information literacy, communication, and critical thinking learning outcomes. An example (at right) gives students exposure to the types of questions that will be asked of them downstream – in class, on tests, and in life.



From the image provided above you can assume that this pregnant woman

- A: Doesn't care about the health of her unborn child
- B: Is holding a cigarette
- C: Does not know about the harmful effects of smoking
- D: Is suffering from nicotine addiction

Coming soon

- In 2016-2017, the MREST will be used to pilot new Cluster One critical thinking test items.
- Library organizational changes will increase the variety of library personnel that general education will need to negotiate with, rather than one direct liaison
- A new version of Adaptex, the testing platform through which the MREST is administered, is under development.
- Longitudinal studies from first-year to graduation in a subset of majors will be conducted in order to demonstrate value-added beyond general education.
- It is feasible that our instruments can “talk to each other.” We would like to review Clusters 3, 4, and 5 testing instruments to identify information literacy content.
- Item writing and tutorial modification continue.
- An investigation as to how transfer students are completing the MREST requirement.
- In 2016-2017, we will automate tracking of the number of MREST attempts. Students who attempt the test more than six times will be connected with interventions prior to their next attempt.
- In 2016-2017, we will track the number of holds placed on students' records due to failure to pass the MREST by the deadline.