

Focusing on LMU's Undergraduate Learning Outcomes: Information Literacy

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Loyola Marymount University is committed to understanding and improving student learning. In early 2010 LMU adopted Undergraduate Learning Goals and Outcomes. Each year, the Assessment Advisory Committee selects one to two Undergraduate Learning Outcomes to examine. In this eighth year (2017-2018), we have chosen to reexamine two Outcomes: *Written Communication*, reported in 2011, and *Information Literacy*, reported in 2013. As both are also outcomes of the revised Core Curriculum, and the senior-student data are from the first cohort to complete the revised Core, the assessment process is designed to help us understand the impact of the revised Core Curriculum.

This report summarizes the evidence of student achievement of the **Information Literacy** outcome: **Students will be able to identify information needs, locate and access relevant information and critically evaluate a diverse array of sources.** The Reference & Instruction Department in the William H. Hannon Library and the Office of Assessment collaborated to administer a direct assessment of Information Literacy, the iSkills Test developed by ETS. This report presents this direct evidence, as well as student responses to related questions on two indirect measures, the 2017 National Survey of Student Engagement (NSSE) and the 2017 Alumni Outcomes Survey.

Direct Evidence: iSkills Test

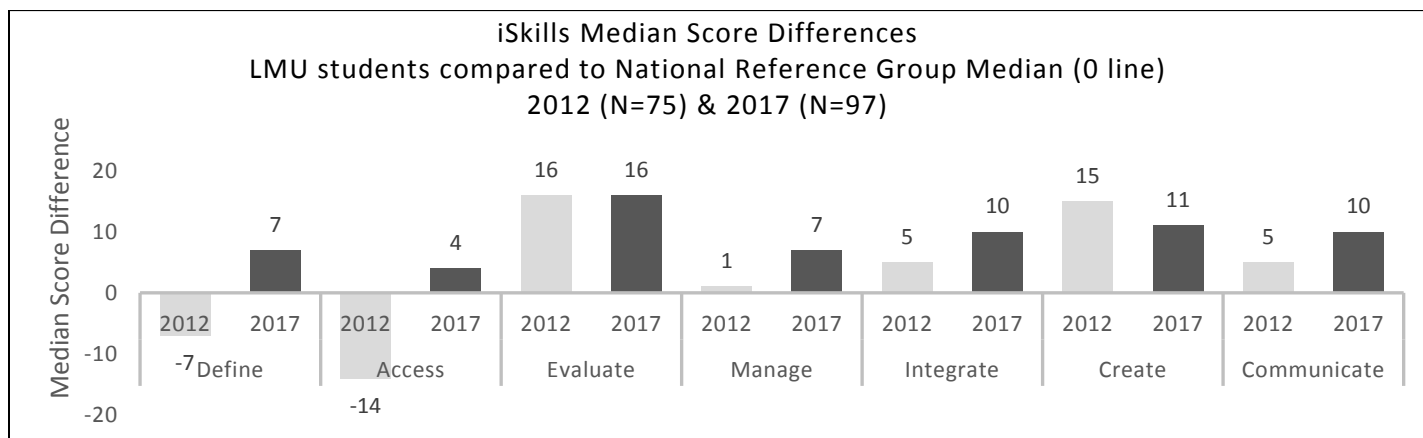
The iSkills Test from ETS was administered to a sample of 100 senior students during the spring 2017 semester. Three students were removed from the final data set due to incomplete test results. Participants were selected through a random sample of all seniors, and were offered \$20 for completing the iSkills. This same test was administered to 75 senior student volunteers in the spring 2012 semester, providing a point of comparison for the current data.

The approximately one-hour iSkills measures the ability to think critically in a digital environment through a range of real-world tasks. The tasks are designed to mirror the way individuals use information in academic, business and personal contexts. The iSkills Test measures performance in seven distinct skill areas:

- **Define:** understand the scope of an information problem to facilitate the search for information
- **Access:** collect information in digital environments
- **Evaluate:** judge whether information satisfies an information problem
- **Manage:** organize information in such a way that it is easy to locate later
- **Integrate:** interpret and represent information
- **Create:** adapt, apply, design or construct information
- **Communicate:** disseminate information tailored to a particular audience

The Appendix presents the percentage of LMU students who achieved the highest score on each test component.

The following graph displays the differences between the LMU median scores and the national reference group median (represented by the 0 line) for both 2012 and 2017, for each of the seven skill areas measured by the iSkills Test.



Indirect Evidence: National Survey of Student Engagement (NSSE)

The NSSE assesses the extent to which students engage in educational practices associated with high levels of learning and development. The data provided in the tables below are from LMU’s spring 2017 participation, which included responses to an additional set of items called *Experiences with Information Literacy*. The complete NSSE report, including an appendix containing all of the *Experiences with Information Literacy* items and detailed information about our comparator groups, can be found under University Assessment Reports on the Office of Assessment website.

LMU freshmen and seniors rate their coursework’s emphasis on evaluating a point of view, decision, or information source higher than their peers in each of LMU’s comparator groups. On the *Experience with Information Literacy* items, they rate LMU’s contribution to their ability to evaluate information effectively higher than the comparator group, and they report engaging more frequently in most information literacy skills-related activities. On the majority of items related to instructor emphasis of information literacy topics, LMU seniors report lower levels of instructor emphasis than LMU freshman.

NSSE Item Scores: Information Literacy

During the current school year, how much has your coursework emphasized:					
1=Very Little, 2= Some, 3=Quite a Bit, 4=Very Much		Mean Response			
		LMU	Jesuit	Masters	NSSE Total
Evaluating a point of view, decision, or information source?	FY	3.05	2.95*	2.89*	2.83*
	SR	3.06	3.01	2.96*	2.89*

*Please note that these scores are significantly different from the corresponding LMU score, $p < .05$

NSSE Item Scores: Experience with Information Literacy

How much has your experience at this institution contributed to your knowledge, skills, and personal development in the following?			
1=Very Little, 2= Some, 3=Quite a Bit, 4=Very Much		Mean Response	
		LMU	Comparator Group
Using information effectively	FY	3.26	2.95*
	SR	3.44	3.22*

*Please note that these scores are significantly different from the corresponding LMU score, $p < .05$

During the current school year, how much have your instructors emphasized the following?			
1=Very Little, 2= Some, 3=Quite a Bit, 4=Very Much		Mean Response	
		LMU	Comparator Group
Appropriately citing the sources used in a paper or project	FY	3.57	3.42*
	SR	3.38	3.43
Using scholarly or peer-reviewed sources in your course assignments	FY	3.49	3.26*
	SR	3.39	3.33
Questioning the quality of information sources	FY	3.29	3.11*
	SR	3.12	3.01

*Please note that these scores are significantly different from the corresponding LMU score, $p < .05$

NSSE Item Scores: Experience with Information Literacy (continued)

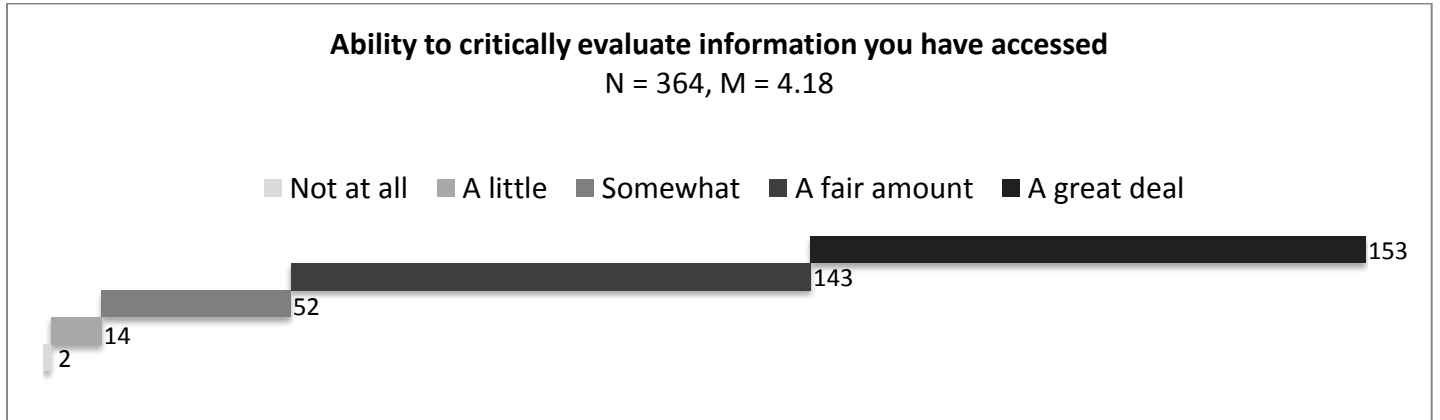
During the current school year, about how often have you done the following?			
1=Never, 2= Sometimes, 3=Often, 4=Very Often		Mean Response	
		LMU	Comparator Group
Completed an assignment that used an information source (book, article, website, etc.) other than required course readings	FY	3.06	3.01
	SR	3.19	3.25
Received feedback from an instructor that improved your use of information resources (source selection, proper citation, etc.)	FY	2.96	2.75*
	SR	3.02	2.77*
Changed the focus of a paper or project based on information you found while researching the topic	FY	2.46	2.28*
	SR	2.56	2.28*

*Please note that these scores are significantly different from the corresponding LMU score, $p < .05$

Indirect Evidence: 2012 Alumni Outcomes Survey

In January 2017, alumni who graduated in 2009 and 2014 were invited to participate in an Alumni Outcomes Survey. These alumni were asked to indicate the extent to which they believe LMU contributed to their development in several key knowledge and skill areas, including information literacy.

Just over 81% (n =296) of alumni who responded to the information literacy item of the survey indicated that LMU contributed to the development of their ability to critically evaluate information they have accessed ‘A fair amount’ or ‘A great deal.’ The chart below provides the mean score (M) and counts for each response category for this item.



Summary

The combination of evidence from the iSkills Test, the NSSE, and the Alumni Outcomes Survey present a clear picture of student achievement of the Information Literacy outcome. The performance of LMU seniors on the iSkills Test indicates that by graduation our students are proficient in the measured aspects of information literacy. In addition, the current iSkills scores, which are from the first cohort to complete the revised Core Curriculum, represent an improvement over the scores of seniors who completed the prior Core Curriculum.

On the NSSE, LMU freshmen and seniors rate their coursework's emphasis on evaluating a point of view, decision, or information source, their ability to use information effectively, and their engagement in information skills-related activities quite highly. However, it is interesting to note that freshman report that they feel their instructors emphasize information literacy topics more than seniors do.

Finally, responses on the Alumni Outcomes Survey indicate that our alumni feel that LMU contributed to their ability to access and critically evaluate information a fair amount.

In evaluating this evidence it is important to consider both the methodology used to examine achievement and the educational experiences we provide to help our students achieve the Information Literacy outcome. For example, as noted, the senior students who completed the iSkills in 2017 were in the first cohort to complete the revised Core. The revised Core includes librarian-designed information literacy instruction in both the First Year Seminar and Rhetorical Arts courses, and completion of a required flagged course for information literacy. Differences in Core requirements may help to explain the growth in iSkills scores since LMU's last participation.

Improving Student Learning

Discussing this report with faculty and/or staff in your program will help you determine what program level actions are needed to improve student achievement of the **Information Literacy** outcome. If you have evidence of learning for a related program outcome, you might include it in your discussion of the University evidence.

As you review the Information Literacy evidence, here are a few questions that you might consider:

- For which components of Information Literacy do you feel students demonstrated satisfactory levels of achievement?
- For which components of Information Literacy do you feel students are in need of improvement?
- How does your program address the Information Literacy outcome? What kinds of pedagogies and assignments are used to develop students' abilities to identify information needs, locate and access information, and critically evaluate sources?
- What modifications to your program's integration of pedagogies and assignments that develop students information literacy might help students to improve on the components you identified as needing improvement?
- What contributions might your program make to help students achieve the Information Literacy outcome through the Core Curriculum?

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Appendix

iSkills Test Aggregate Task Performance Feedback Report

This table shows the percentage of LMU students (N=97) who achieved the highest score for each component of the iSkills Test. The percentage of students from the reference group (N=3115) who achieved the highest score for each component is also presented. The reference group is comprised of students from 29 domestic institutions who tested between January 4, 2013 and March 21, 2014.

What students were asked to do	Feedback on highest-scoring responses	% of LMU students who provided highest-scoring responses	% in reference group who provided highest-scoring responses
		N=97	N=3115
DEFINE Skill Area: Understand and articulate the scope of an information problem in order to facilitate the electronic search for information.			
Answer three questions to clarify a research project	You selected the best initial question to help clarify the project	86%	77%
	You selected the best database variable to provide useful information for the project	75%	69%
	You chose the best research question	75%	58%
Choose a research topic according to specific criteria and explain your choice	You chose a research topic that fulfilled all of the criteria given	62%	39%
	You correctly reported the criteria fulfilled by the research topic selected	19%	7%
ACCESS Skill Area: Collect and/or retrieve information in digital environments. Information sources might be web pages, databases, discussion groups, e-mail, or online descriptions of print media.			
Search a store's database in response to a customer's inquiry	You chose the correct store database on your first search	95%	92%
	You chose the best search expression for the category selected	90%	87%
	You selected all of the appropriate items for the customer	61%	52%
	You did not select any inappropriate items for the customer	31%	27%
Install a video player in order to download a video file	You installed the video player and played the video file successfully	96%	82%
	You selected no unnecessary links when installing the video player	68%	50%
	You saved the video file to the proper folder on the hard drive	31%	34%
EVALUATE Skill Area: Judge whether information satisfies an information problem by determining authority, bias, timeliness, relevance, and other aspects of materials.			
Evaluate a database in order to determine its usefulness for a project about opposing viewpoints	You evaluated the database correctly and selected sources with authority and objectivity	87%	54%
	You selected current sources from the database	57%	43%
	You selected relevant sources from the database	59%	34%
	You correctly determined whether the database was useful for your project and selected the best articles	47%	25%
	You correctly evaluated the usefulness of the database without needing explicit criteria	87%	76%
Evaluate flyers according to their fulfillment of particular criteria and choose the best one	You rated the flyers correctly	56%	49%
	You chose the correct flyer as best	87%	77%
	You filled out the justification form explaining your choice of flyer correctly	81%	54%

What students were asked to do	Feedback on highest-scoring responses	% of LMU students who provided highest-scoring responses	% in reference group who provided highest-scoring responses
		N=97	N=3115
MANAGE Skill Area: Organize information to help you or others find it later.			
Fill in an organizational chart to reflect the new structure of a new business	You represented all required elements in the organizational chart	78%	77%
	You represented all elements in the right relationships	75%	72%
	You appropriately deleted unused cells	70%	67%
Place emails into correct folders and identify those requiring later action	You moved e-mails into proper folders	35%	22%
	You properly handled e-mails requiring later action	48%	30%
INTEGRATE Skill Area: Interpret and represent information, such as by using digital tools to synthesize, summarize, compare, and contrast information from multiple sources.			
Complete a table comparing potential checking accounts according to specific criteria	You selected correct column headings for the table	41%	31%
	You accurately represented information in the table	60%	46%
	You ranked the checking account correctly	70%	56%
Combine several electronic suggestions in order to plan a scientific experiment	You organized the experiment correctly	46%	33%
	You distinguished the steps and results of the experiment correctly	60%	41%
	You correctly identified the conclusion in the experiment plan	66%	44%
	You accurately cited the source of the experiment	56%	59%
CREATE Skill Area: Adapt, apply, design, or construct information in digital environments.			
Create a slide for a group presentation	You chose the best layout to create the slide	80%	57%
	You chose the best title for the slide	79%	68%
	You chose the best text for the slide	11%	5%
	You chose the best image for the slide	77%	57%
	You formatted the finished slide effectively	34%	27%
Create a data display	You selected the necessary content for the data display	42%	31%
	You organized the layout of the data display logically and effectively	41%	24%
	You created the data display very efficiently	36%	20%
	You drew a correct conclusion based on the data display	65%	45%
COMMUNICATE Skill Area: Disseminate information tailored to a particular audience in an effective digital format.			
Select the best way to advertise products to users of an electronic mailing list	You correctly analyzed the key details of all the advertisements	69%	51%
	You correctly applied the mailing list policy to the advertisements	31%	23%
	You chose an advertisement with language and tone suitable for the audience	88%	69%
	You selected the best advertisement for the mailing list	86%	67%
Make a slide arguing a position on telecommuting based on information presented in an e-mail	You included all key points necessary for effective communication	30%	25%
	You included no points irrelevant to the audience's needs	26%	19%
	You chose the most effective title for the presentation slide	56%	49%