

INFORMATION LITERACY

BYU-HAWAII • WINTER 2015-16

*Results from evaluation of student work during sessions held by the
Information Literacy Core Competency/ILO group on December 12, 2015,
and January 9, 2016*

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ABOUT THIS REPORT

About this report

PURPOSE

The purpose of this report is to summarize the results of the evaluation of student work by the Information Literacy Core Competency/ILO Group (IL Group). Evaluation sessions were held during the winter 2015-16 semester on December 12, 2015, and January 9, 2016.

This report is intended to inform the IL Group discussion and consensus on the measured level of information literacy at BYU-Hawaii. This report may also aid the IL Group in determining next steps for the measurement of information literacy at the University.

ARTIFACT SELECTION

Student artifacts were reviewed to reflect students' information literacy at or near graduation at both the Associates and Bachelors levels. At the Associates level student work from GE 110 and ENGL 201 were used. At the Bachelors level student work from ENGL 314, ENGL 315, BIOL 494L, CHEM 494, and HIST 490 were used.

A stratified random sample of students was selected to represent the number of graduates receiving degrees at each level, the number enrolled in the corresponding courses, and the number in select demographic groupings on campus. Artifacts from courses offered during 2013, 2014, and 2015 were included in the random selection.

The Associate Academic VP for Assessment and Accreditation, Rose Ram, collected the artifacts from Canvas, stripped identifying information, and shared the artifacts with the IL Group lead. Artifacts were disseminated to IL Group members by the group lead.

NORMING AND CALIBRATION

The Information Literacy Rubric was developed by the IL Group and used to evaluate each student artifact. Norming and calibration were conducted within the group and are not covered in this report.

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February 11, 2016

SAMPLE AND REPRESENTATIVENESS

Sample and Representativeness

A total of 149 student artifacts were reviewed and included in these results. Of these, 23% or 34 papers were at the Associates level and 77% or 115 papers were at the Bachelors level. This closely mirrors the proportion of degrees that were awarded in 2015, of which 22% were at the Associates level and 79% were at the Bachelors level.

The sample used was generally representative of the overall student population. When broken down by gender, EIL status, ethnicity, home area, and college, the sample fairly well reflects the enrolled winter 2015-16 population as seen in the table below.

	SAMPLE	POPULATION
GENDER		
Male	51%	42%
Female	49%	58%
EIL STATUS		
Enrolled in EIL	34%	30%
Did not enroll in EIL	66%	70%
ETHNICITY		
American Indian/Alaska Native	2%	1%
Asian	35%	28%
Black	1%	1%
Hawaiian	3%	4%
Hispanic	3%	6%
Pacific Islander	23%	18%
White	34%	42%
HOME AREA		
Asia	31%	24%
Pacific	15%	13%
Hawaii	10%	10%
US Mainland	38%	49%
Other International	6%	4%
COLLEGE		
Business, Computing & Gov't.	40%	35%
Human Development	15%	15%
Language, Culture & Arts	17%	17%
Math & Sciences	19%	25%
Special	9%	5%
Undecided	1%	4%

RESULTS SUMMARY

Results Summary

Results of the scored artifacts are summarized by level in Table 1 and Table 2 below. The same general pattern appears at both the Associates and Bachelors levels where the highest proportion of artifacts for Knows when information is needed, Evaluates information, Uses information effectively and responsibly, and Overall score is at the Emerging level. Similarly, the highest proportion of artifacts for the Locates information criterion at both levels is at the Developing stage.

TABLE 1: ASSOCIATES LEVEL SUMMARY

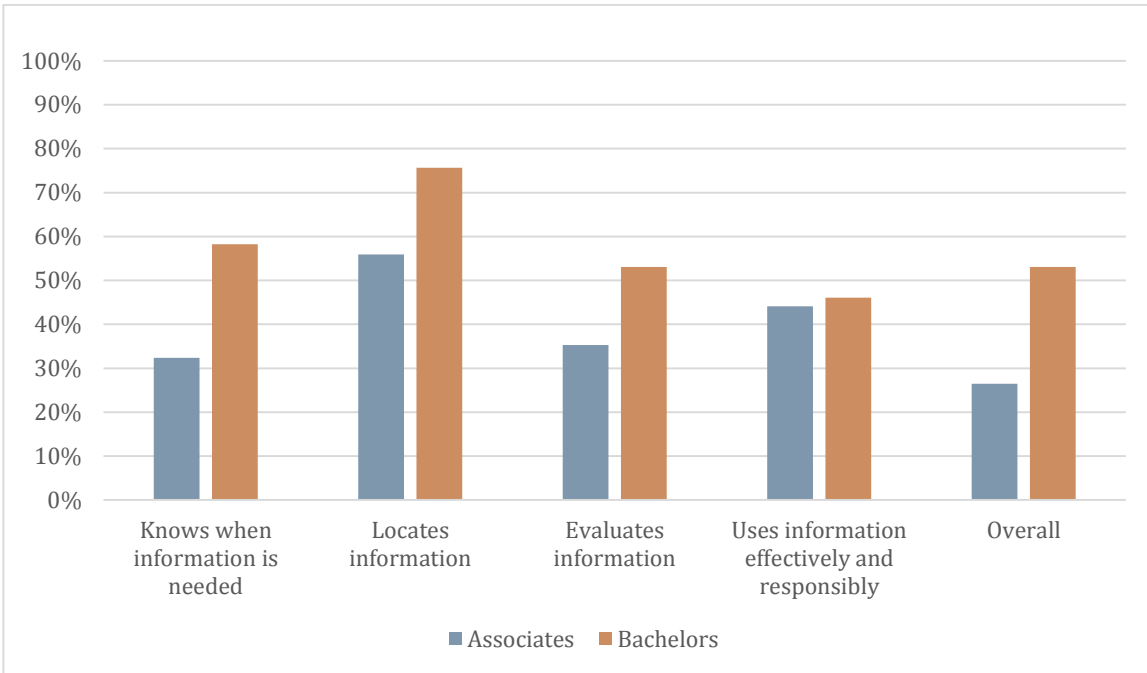
CRITERIA	INITIAL (0)	EMERGING (1)	DEVELOPING (2)	HIGHLY DEVELOPED (3)
Knows when information is needed	21%	47%	24%	9%
Locates information	9%	35%	44%	12%
Evaluates information	18%	47%	26%	9%
Uses information effectively and responsibly	12%	44%	35%	9%
Overall score	18%	56%	18%	9%

TABLE 2: BACHELORS LEVEL SUMMARY

CRITERIA	INITIAL (0)	EMERGING (1)	DEVELOPING (2)	HIGHLY DEVELOPED (3)
Knows when information is needed	7%	35%	34%	24%
Locates information	5%	19%	43%	33%
Evaluates information	12%	35%	30%	23%
Uses information effectively and responsibly	5%	49%	24%	22%
Overall score	12%	35%	26%	27%

RESULTS SUMMARY

Chart 1: Proportion of artifacts at the Developing or Highly Developed stages



Despite the similarity previously mentioned, the artifacts at the Bachelors level have a higher proportion at the Developing and Highly Developed stages than do those at the Associates level. This is depicted in Chart 1 above, which shows gap differences of roughly 20% or more between the Associates and Bachelors levels for each criterion and overall score except Uses information effectively and responsibly.

In general, those at the Associates and Bachelors level score highest at Locates information; while at the Associates level the lowest ratings are for Knows when information is needed and at the Bachelors level the lowest ratings are for Uses information effectively and responsibly.

GROUP COMPARISONS

Group Comparisons

Results from T-tests for independent groups show that artifacts at the Bachelors level score significantly higher than artifacts at the Associates level for Knows when information is needed ($p < .01$), Evaluates information ($p < .01$), Uses information effectively and responsibly ($p < .05$), and Overall score ($p < .05$). There is no statistically significant difference between Associates and Bachelors level artifacts for the Use information effectively and responsibly criterion.

Scored results were analyzed by the following demographic groups: gender, EIL status, ethnicity, home area, and college. Each level (Associates and Bachelors) was analyzed separately and results for these comparisons are below. The small size of the Associates sample ($N=34$) may account for the general lack of significant findings at this level.

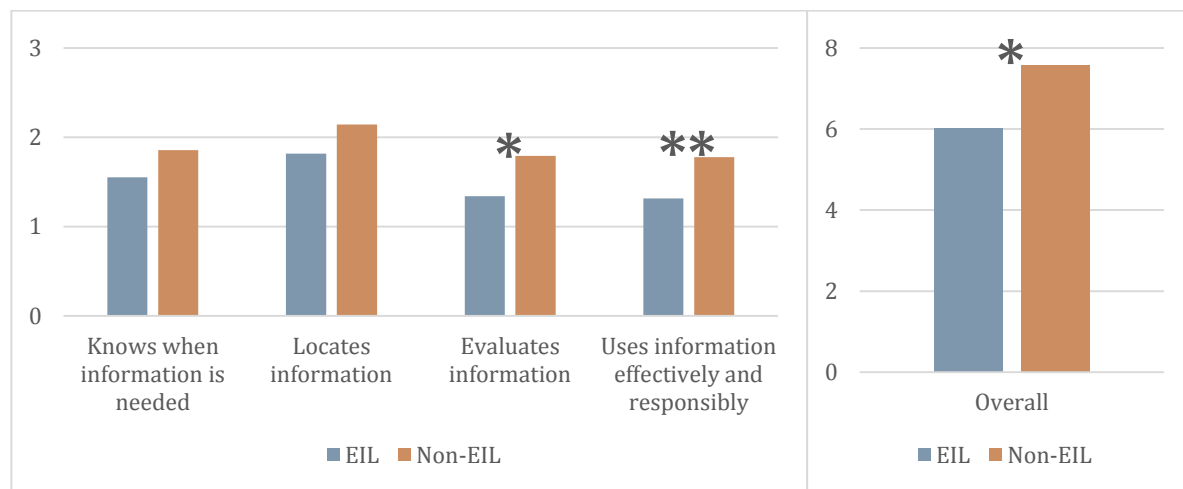
GENDER

There was no statistically significant difference between males and females at either the Associates or Bachelors level for all the criteria and overall score.

EIL STATUS

T-tests for independent groups showed the differences between the means of those students who enrolled in EIL credits at any point in their BYUH career and those who did not. While there was no significant difference for any of the criterion between these groups at the Associates level, EIL students at the Bachelors level had a significantly lower mean than non-EIL students for Evaluates information ($p < .05$), Uses information effectively and responsibly ($p < .01$), and Overall score ($p < .05$). There is no significant difference between these groups for Knows when information is needed and Locates information.

Chart 2: Mean differences between EIL and non-EIL students at the Bachelors level



* Significant difference at $p < .05$ level

** Significant difference at $p < .01$ level

GROUP COMPARISONS

ETHNICITY

There were no statistically significant differences between ethnicities at the Associates level. At the Bachelors level, a one-way Analysis of Variance (ANOVA) revealed significant effects for ethnicity for the criterion Uses information effectively and responsibly. A Tukey HSD post-hoc test showed that the mean score for White students (2.00) was significantly higher than the mean for Asian students (1.28) at the $p < .01$ level. In addition, the mean score for Hispanic students (2.75) was significantly higher than the means for Asian students (1.28) and American Indian students (0.00) at the $p < .05$ level.

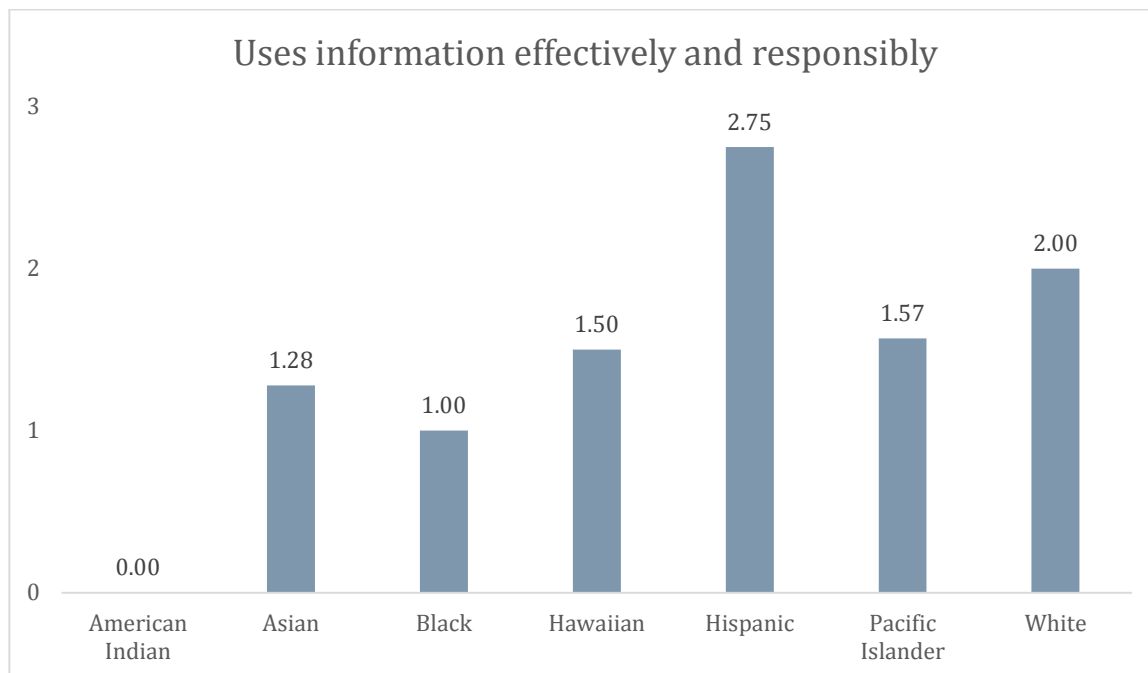


Chart 3: Means for Uses information effectively and responsibly by ethnicity at Bachelors level

HOME AREA

One-way ANOVAs were employed to discover differences in scores for students from Asia, the Pacific, Hawaii, the US Mainland and Other International areas. While there was no significant difference for any of the criterion between these groups at the Associates level, a Tukey HSD post-hoc test shows that students from the US Mainland at the Bachelors level had a significantly higher mean (1.98) than students from Asia (1.37) and the Pacific (1.32) at the $p < .05$ level for the criterion Uses information effectively and responsibly. Students from the US Mainland also received significantly higher Overall scores (8.05) than students from the Pacific (5.63) at the $p < .05$ level.

GROUP COMPARISONS

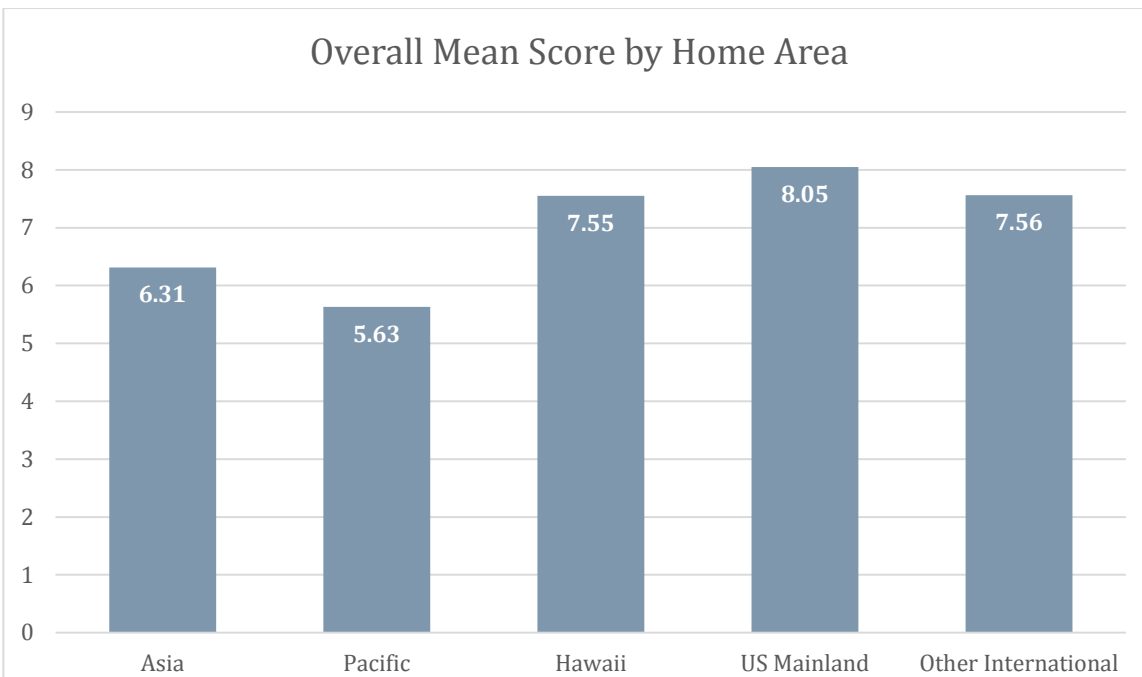


Chart 4: Bachelors Level Overall mean score by Home Area

TABLE 3: BACHELORS LEVEL MEAN SCORES BY HOME AREA

CRITERIA	ASIA	PACIFIC	HAWAII	US MAINLAND	OTHER INTERNATIONAL
Knows when information is needed	1.60	1.47	1.82	1.95	2.00
Locates information	1.89	1.63	2.27	2.21	2.43
Evaluates information	1.46	1.21	1.91	1.91	1.71
Uses information effectively and responsibly	1.37	1.32	1.55	1.80	1.71

COLLEGE

There were no statistically significant differences between colleges at the Associates level. At the Bachelors level, one-way ANOVAs revealed significant effects for college for all criteria and the Overall score. Tukey HSD post-hoc tests reveal that means scores for artifacts from the College of Math & Sciences are significantly higher than those from the College of Business Computing & Government and the College of

GROUP COMPARISONS

Human Development for all criteria. Students from the College of Math & Sciences also had Overall score means that were significantly higher than those from the College of Business, Computing & Government, the College of Human Development, and those students in Special programs (e.g., University Studies). These mean scores by college are outlined in Table 4.

TABLE 4: BACHELORS LEVEL MEAN SCORES BY COLLEGE

CRITERIA	BUSINESS COMPUT- ING & GOVT	HUMAN DEVELOP- MENT	LANGUAGE CULTURE & ARTS	MATH & SCIENCES	SPECIAL PROGRAMS
Knows when information is needed	1.67	1.47	1.78	2.33	1.50
Locates information	1.84	1.84	2.22	2.57	1.83
Evaluates information	1.51	1.16	1.83	2.33	1.42
Uses information effectively and responsibly	1.44	1.32	1.61	2.29	1.67
Overall score	6.47	5.79	7.44	9.52	6.42

Means for the College of Math & Sciences are significantly higher than those for the College of Business, Computing and Government and College of Human Development for all criteria and Overall score. The Overall mean for the College of Math & Sciences is also significantly higher than the mean for Special programs.

Notes

- Scores that were not whole numbers were rounded up to the nearest whole number. A total of 2 scores for one student were rounded up. This was the artifact with reviewer labeled “Norm 5.”
- Three artifacts were not included in the results because the student ID number was either missing or not locatable in the general sample selection file. Because of this, level and demographic information were not available and these cases were excluded from the analyses.
- Two student artifacts were reviewed by two different people, causing duplicate scores for the same students. These scores were averaged and rounded to nearest whole number so each student artifact was included just once in the results.
- The artifact reviewed by “Norm 5” is included in these general results.