

# Institutional Student Learning Outcome (ISLO) Assessment Summary Report Academic Year: 2021-2022 ISLO5: Information Literacy and Technological Competency

## **Information Literacy and Technological Competency**

*Students will be able to identify the need for more information, locate electronic media using appropriate technology including but not limited to the internet, evaluate the credibility of information thus obtained, use information effectively to accomplish a specific purpose, and properly use and cite sources of information.*

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in consultation with Susan Rogers, Colleen Trogisch, and participating faculty.

Report submitted on October 1, 2022

## Executive Summary

### ***SCOPE:***

Courses from which assessment data was gathered (# of sections): AHS 100 (2), BHS 103 (5), BHS 207 (1), BHS 245 (2), CRJ 253 (1), CRJ 266 (2), ECH 254 (2), ELT 250 (1), ENG 101 (7), ENG 226 (1), ESW 100 (2), HIS 104 (1), NUR 112 (1, narrative only), NUR 215 (1), NUR 218 (2), PAL 120 (1), PAR 102 (1), PFA 100 (1), SCI 100 (2)

Participating faculty and academic department:

- **AHBS:** D. Dhanabala, K. Escolas, C. Rounds, T. Sweet, D. Violante
- **BACP:** J. McFadden
- **BHS:** J. Bishop, T. Jones, M. Kucukozer, S. Minard, L. Reilly, D. Valentine, M. Woodcock
- **HGE:** L. Murphy
- **ENG:** J. Allen, K. Cavanaugh, L. Cherciu, J. Goffe-McNish, P. Phillips, J. Yanoti
- **NUR:** N. Moskowitz, I. Hunter, T. Scaria
- **PSET:** L. Akins, S. Conrad
- **PVAC:** T. Costello, D. Weidman

Total # of Sections: 34

Total # of Students: Valid data collected for 397 out of 564 possible assessments (188 in Fall 2021; 209 in Spring 2022)

### ***RESULTS:***

- Non-traditional aged students and those in upper-level courses outperformed traditional aged students and those in 100-level courses.
- Students who used the Writing Center outperformed those who did not.
- Library student survey reveals a disconnect between student and faculty perceptions on their skills development, as well as on their knowledge of certain components of information literacy.
- Students who had not taken a developmental ENG course outperformed those who had.
- Student outcomes in the area of Citation improved from the 2018-2019 assessment of ISLO5.
- Faculty expressed concerns about non-classroom issues impacting student success, such as social/emotional learning, economic and health issues, etc.

**CONCLUSIONS AND RECOMMENDATIONS:**

The assessment team proffered the following conclusions and recommendations.

<b>Result/Conclusion</b>	<b>Recommendation for Action</b>
Non-traditional aged students and those in upper-level courses outperformed traditional aged students and those in 100-level courses.	Encourage faculty to scaffold assignments, especially for students in 100-level courses, to help them build the skills necessary for advanced information literacy and technological competency.
Students who used the Writing Center outperformed those who did not.	Provide the Writing Center needed resources to continue to develop and expand their services in assisting DCC students. Encourage more faculty to engage with the Center to enhance course instruction on ISLO5 skills.
Library student survey reveals a disconnect between student and faculty perceptions on their skills development, as well as on their knowledge of certain components of information literacy.	Encourage faculty and students to use the library resources. Rerun the student survey to continue to collect data.
Students who had not taken a developmental ENG course outperformed those who had.	Faculty Assessment Leader (and potentially the Discipline Leader for ISLO5) meet with ENG faculty to discuss best practices in teaching ISLO5 skills in the developmental classes.
Student outcomes in the area of Citation improved from the 2018-2019 assessment of ISLO5.	Encourage faculty to continue to emphasize correct citation creation. Continue to provide workshops for students on MLA and APA formatting.
Faculty expressed concerns about non-classroom issues impacting student success, such as social/emotional learning, economic and health issues, etc.	A call for a campus-wide initiative to focus on the impact of those issues on student success, involving the PSO, student services, and other relevant college offices and departments.

***ACTION PLAN:***

<b>Recommendation for Action</b>	<b>Potential Resources</b>
Encourage faculty to scaffold assignments, especially for students in 100-level courses, to help them build the skills necessary for advanced information literacy and technological competency.	FAL and Associate Dean of Instruction and Learning discuss with faculty and program chairs to review courses and programs where this scaffolding might occur. Workshops on best practices in Information Literacy pedagogy, offered via the library and/or Writing Center.
Provide the Writing Center needed resources to continue to develop and expand their services in assisting DCC students. Encourage more faculty to engage with the Center to enhance course instruction on ISLO5 skills.	Potential budgetary impact on Writing Center to allow them to expand services. FAL and Associate Dean of Instruction and Learning present findings to Program Chairs Council and Departmental Affairs Council to encourage engagement with the Writing Center across disciplines.
Encourage faculty and students to use the library resources. Rerun the student survey to continue to collect data.	Provide library director with necessary resources to enhance and run student surveys in future semesters. FAL and Associate Dean of Instruction and Learning encourage faculty to incorporate library resources into courses.
Faculty Assessment Leader (and potentially the Discipline Leader for ISLO5) meet with ENG faculty to discuss best practices in teaching ISLO5 skills in the developmental classes.	Time and resources for FAL and faculty to meet; potential resources to compensate part-time faculty to participate in this work.
Encourage faculty to continue to emphasize correct citation creation. Continue to provide workshops for students on MLA and APA formatting.	Resources for library and Writing Center to develop, revise, enhance, and provide workshops.
A call for a campus-wide initiative to focus on the impact of non-classroom issues on student success, involving the PSO, student services, and other relevant college offices and departments.	FAL to meet with shared governance leaders to discuss potential for campus-wide initiatives. Associate Dean of Instruction and Learning provide input to college cabinet and other related offices on this issue.

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## **1 State the specific question(s) asked**

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ISLO5-Information Literacy and Technological Competency was last assessed during the 2018-2019 academic year. A summary of the important results from that assessment include the fact that student outcomes were strongest in their recognition for the need for information, but they struggled when it came to evaluating that information, and particularly in citing it accurately. Faculty also expressed concerns about when, where, and how ISLO5 skills were introduced and reinforced within programs, leading to questions about the best courses in which to truly assess those skills. Faculty also noted, though, the positive impact the resources at the library had on student skills, such as the classes librarians teach in research and the online CREDO learning modules, both of which help to introduce and reinforce the skills. Those outcomes led to calls for more avenues by which students might practice information literacy skills, such as through the Writing Center, other tutoring resources, or enhanced library offerings.

Since that time, the Faculty Assessment Leader has met with the library staff to review ways to assist in the development of the ISLO5 skills. Library staff has reworked its primary classes in effectively utilizing its resources for student research, providing hands-on activities that have the students practice with different approaches to locating and evaluating information found in the library databases, leading to discussions about the different ways students might do that work. The Faculty Assessment Leader also met with the Director of the Writing Center, and in tandem with the library, the Center has revised and enhanced its workshops for students on using both Modern Language Association (MLA) and American Psychological Association (APA) formats for citing source information. The Director of the Ritz Library also created a student survey, provided to those who attended library classes in their courses, to begin to gather student perspectives regarding information literacy.

To further prepare for this cycle of assessment, faculty and staff first met in January and May 2021. At those meetings, discussion focused at least in part on students' computer literacy, as well as their access to technology itself. Faculty raised concerns regarding how students were accessing not only information (via computers or tablets or phones), but also their coursework more generally. Some of those points are certainly related to the learning outcome at hand, but others go beyond the specific definition listed above. Therefore, the Faculty Assessment Leader met with members of both the Committee on Student Learning and Assessment (CSLA) and the Educational Environment Committee (EEC) to share those concerns. The EEC agreed to create a survey to gather information regarding student access to technology and the ways in which they use that technology to engage with their academic work.

The remainder of those first workshops focused on finding more ways for students to practice ISLO5 skills in and out of the classroom, and then led to the specific research questions addressed in this report.

## **Research Questions:**

1. Are there differences in outcomes based on student age groups, which might also point to outcomes for traditional v. non-traditional students?
2. What impact do student services outside the classroom have on outcomes for ISLO5 (i.e., library courses and resources, Writing Center workshops, CREDO, etc.)?
3. Is there a difference in outcome for students currently enrolled in a developmental ENG course (ENG091, ENG092, ENG003), students who successfully completed one of those courses, and students who never took one?

## **2 Describe the methods used to answer the question(s)**

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An outline of the methodology is provided below:

- As noted above, faculty and staff first met on January 14, 2021, to begin the planning for this cycle of assessment. Attendees discussed the definition of the learning outcome and the rubric used to score student work. They reviewed the 2018-2019 cycle and its conclusions and recommendations, began formulating research questions, and reviewed the processes by which they will collect and analyze the data (via TracDat).
- The group then met again on May 14, 2021, to finalize those plans. The January workshop was summarized, the definition and rubric were again reviewed and agreed upon, and the research questions noted above were approved. Discussions focused again on the concerns regarding technological competencies, as well as a desire to gather more student input in the assessment process. Finally, attendees reviewed course designations for the assessment and reviewed the data collection procedures.
- In the first few weeks of the Fall 2021 semester, the Faculty Assessment Leader confirmed with the department and program chairs the following list of courses to be assessed: AHS100; BHS103; BHS207; BHS245; COM120; COM140; CRJ253; CRJ266; ECH254; ELT250; ENG101; ENG226; ESW100; HIS104; NUR218; PAL120; PAR102; PFA100; SCI100.

- The faculty agreed to continue to use the rubric developed at the college (see Appendix A), which is influenced by the Valid Assessment of Learning in Undergraduate Education, or VALUE, rubric in Information Literacy developed by the American Association of Colleges and Universities (AAC&U). Faculty chose to use a mix of instruments in order to complete that assessment, including major course assignments, such as term papers or final exams, as well as multiple, more minor course assignments throughout the semester.
- Faculty in two academic departments – AHBS and BHS – were awarded assessment grants to allow for coordination between instructors and to support part-time faculty in assessment activities.
- During the academic year, faculty input data gathered in TracDat/Nuventive (allowing assessment results to be associated with student information in Banner). At the end of the academic year, the rubric data was downloaded and tabulated by the Associate Director of Institutional Research, Planning, and Assessment (IR), who performed further statistical analysis. The Faculty Assessment Leader downloaded all narrative data from faculty, in which they provided their own perspectives on the assessment outcomes, the procedures they used to collect and analyze data, and other insights, and the Faculty Assessment Leader then analyzed that qualitative data in search for common themes.
- Also throughout the academic year, the staff of the Ritz Library collected student surveys on their own self-perceptions regarding information literacy. The outcomes of those surveys were tallied in order to provide context for the course-based assessments used by the faculty. Those results are reported on in Sections 3 and 4, and the survey is included in Appendix E.
- Using the above information, the Faculty Assessment Leader prepared a draft report of the assessment and provided it to participating faculty for their review. Faculty provided continued feedback for revision of the draft via an August 2022 workshop and through email and conversation with the Faculty Assessment Leader through September 2022.
- The final report was submitted on October 1, 2022.

### **3 Summarize the Results**

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#### **3.1 Total Tabulated Data and Comments**



There were 564 possible assessments across 34 sections. Valid data was collected for 397 assessments (188 in Fall, 209 in Spring), a rate of 70.4%. Statistics exclude sections where no data was collected.

The rubric shared by all faculty assessing this ISLO (see Appendix A) included five (5) assessment items as provided in the table below. Each item is referred to in the results and conclusions sections using the identifier indicated in Table 1.

*Table 1 Assessment Items/Categories for ISLO5*

Item	Identifier	Description
1	Identify	Identify the need for information.
2	Locate	Locate electronic media using appropriate technology including but not limited to the internet.
3	Evaluate	Evaluate the credibility of information published on the internet.
4	Use Info	Use information effectively to accomplish specific purpose.
5	Citation	Properly uses and cites sources of information.

Overall average ratings using the shared rubric were 3.14 for Identify, 3.19 for Locate, 3.01 for Evaluate, 2.97 for Use Info, and 2.90 for Citation, where 4.0 represents the highest rating. Table 2 provides the percentage of students scoring each individual rating for each category.

*Table 2 Percentage of students scored for each individual rating*

	Identify	Locate	Evaluate	Use Info	Citation
4 = advanced competency	41.1%	45.8%	33.2%	32.2%	31.5%
3 = moderate competency	37.5%	31.2%	40.3%	38.8%	36.5%
2 = modest competency	15.6%	19.1%	21.4%	23.4%	23.4%
1 = developing competency	5.5%	3.5%	4.5%	5.0%	8.1%
0 = skill not demonstrated	0.3%	0.3%	0.5%	0.5%	0.5%

Table 3 provides the percentage of students who have either met or exceeded expectations in each category, as well as the percentage of those who did not meet college expectations.

*Table 3 Percentage of students scored 0/1 vs 2/3/4*

	Identify	Locate	Evaluate	Use Info	Citation
2/3/4 = did meet expectations	94.2%	96.2%	95.0%	94.5%	91.4%
0/1 = didn't meet expectations	5.8%	3.8%	5.0%	5.5%	8.6%

Inter-item reliability was assessed using Pearson correlations and Cronbach's alpha. All ISLO items were positively correlated with one another ( $r_s > .6$ ,  $p_s < .001$ ). Inter-item reliability was excellent ( $\alpha = .93$ ). This result implies that the items can be combined to form a single score representing information literacy and technological competency.

Furthermore, the means (provided in Table 4 along with the standard deviations) were compared using a repeated-measures ANOVA. Several hypothesis testing procedures were conducted, but groups with small/disparate Ns were excluded from analyses. Only statistically significant results are described. Results indicate an overall significant difference between items,  $F(4,1584) = 24.09$ ,  $p < .001$ . Bonferroni-corrected pairwise comparisons indicated that (a) Identify and Locate were rated higher than Evaluate, Use Info, and Citation; and (b) Evaluate was higher than Citation ( $p_s < .05$ ).

*Table 4 Overall Ratings (Mean Scores and Standard Deviations)*

	<b>Identify</b>	<b>Locate</b>	<b>Evaluate</b>	<b>Use Info</b>	<b>Citation</b>
Overall Ratings (n=397)	3.14 (0.89)	3.19 (0.88)	3.01 (0.88)	2.97 (0.90)	2.90 (0.95)

Finally, independent t-tests were used to compare the results from the Fall and Spring semesters (Table 5). Ratings in the Fall were lower than ratings in the Spring for Locate, Evaluate, and Citation,  $t(395) > 2.47$ ,  $ps < .05$ .

*Table 5 Outcomes by Semester*

	<b>Identify</b>	<b>Locate</b>	<b>Evaluate</b>	<b>Use Info</b>	<b>Citation</b>
Fall (n=188)	3.08 (0.88)	3.07 (0.94)	2.86 (0.88)	2.91 (0.91)	2.76 (0.97)
Spring (n=209)	3.19 (0.90)	3.29 (0.82)	3.15 (0.86)	3.03 (0.89)	3.03 (0.92)

### **3.2 Types of Assignment Data and Comments**

Faculty were asked to describe the assignment(s) used for assessment. Methods varied, from individual assignments, to tests and quizzes, to major projects and presentations. Samples of the assignments can be found in Appendix B.

### **3.3 Student Academic Experiences**

Traditional inquiries regarding campus assessments often focus on students' previous academic experiences, and a few specific research questions for this cycle indicate a desire to know more about that student experience. In order to answer those questions, student characteristics that might impact their experience (such as full-time versus part-time, or previous course work) were examined in relation to performance on the assessment criteria.

#### *3.3.1 Student Characteristics*

The students' higher education history (i.e., whether they were new/continuing/transfer/high-school concurrent) was analyzed. The numbers of students in each group were as follows: New First-Time (n=92), Continuing (n=277), New Transfer (n=19), and High-School Concurrent (n=9). Given the small sample sizes for Transfer and Concurrent students, those results were ignored. Using independent t-tests, New First-Time and Continuing students were compared. Continuing students outperformed New First-Time students on Identify (3.21 v. 2.91), Locate (3.25 v. 3.02), and Evaluate (3.11 v. 2.73) [ $t(367) > 2.09$ ,  $ps < .05$ ].

Student outcomes were also grouped by enrollment status, full-time (FT; n=257) v. part-time (PT; n=140). Independent t-tests showed that PT students outperformed FT students on all ISLO items: Identify (3.39 v. 3.00), Locate (3.44 v. 3.05), Evaluate (3.39 v. 2.81), Use Info (3.24 v. 2.83), and Citation (3.14 v. 2.78).

Differences in outcomes between students who had passed the course in which the ISLO was assessed (grade of A/B/C, n=371) and those who had not (grades D/F/I/W/ZF, n=26) were analyzed using independent t-tests [ $t(395) > 3.58$ ,  $ps < .001$ ], showing that those who had passed outperformed those who had not in all categories. The results for each item were:

Identify (3.20 v. 2.15), Locate (3.23 v. 2.54), Evaluate (3.05 v. 2.42), Use Info (3.03 v. 2.12), 2.96 v. 2.15).

Furthermore, grades were transformed to the 4.0 GPA scale (including withdrawals and other grades not included in GPA calculations), and all ISLO items were positively correlated with course grades [ $r_s(397) > .35$ ,  $ps < .001$ ]. Therefore, higher ISLO ratings were associated with stronger grades in the course.

Data was also collected on the type of degree the student was pursuing (associate, certificate, or non-degree); however, the sample sizes for certificate ( $n=13$ ) and non-degree ( $n=10$ ) were insufficient to conduct inferential analyses.

### 3.3.2 Course Characteristics Data and Comments

In order to answer questions about how student outcomes compared across different courses, as well as how the outcomes may differ from entry-level to more advanced courses, statistical analyses were performed based on course characteristics.

First, a specific research question asked about the outcomes for students who were enrolled or who had taken a remedial ENG course as compared to students who had not taken those courses. Using independent t-tests showed that students who had not taken a remedial ENG course outperformed those who had in all ISLO items [ $t_s(395) > 2.64$ ,  $ps < .01$ ]. See Table 6.

*Table 6 Students who had taken developmental ENG v. Students who had not*

	<b>Identify</b>	<b>Locate</b>	<b>Evaluate</b>	<b>Use Info</b>	<b>Citation</b>
Yes, had remedial ENG (n=62)	2.74 (0.96)	2.92 (0.87)	2.71 (0.84)	2.56 (0.90)	2.55 (0.92)
No (n=335)	3.21 (0.86)	3.24 (0.88)	3.07 (0.88)	3.05 (0.88)	2.97 (0.95)

Research questions focused on student age, as well as faculty narrative data that reveals concerns about the course level in which the ISLO skill is assessed, also point towards interests in how outcomes fared in 100-level v. 200-level courses. Independent t-tests were used to compare the outcomes generally in courses at those levels, and outcomes in 200-level courses were higher than those in 100-level courses for Identify, Evaluate, and Use Info [ $t_s(395) > 2.98$ ,  $ps < .01$ ]. Please see Table 7.

*Table 7 200-level v. 100-level courses*

	<b>Identify</b>	<b>Locate</b>	<b>Evaluate</b>	<b>Use Info</b>	<b>Citation</b>
100-level (n=205)	2.97 (0.91)	3.12 (0.90)	2.82 (0.86)	2.84 (0.97)	2.81 (0.97)
200-level (n=192)	3.32 (0.84)	3.27 (0.86)	3.21 (0.86)	3.11 (0.79)	3.00 (0.93)

Outcomes were also compared across course types (100-level without prerequisites, 100-level with prerequisites, 200-level, and 200-level capstone). The sample size for 100-level with prerequisites was too small, and so those results were excluded. Using Oneway ANOVA, significant differences were found for all ISLO items [ $F_s(2,390) > 3.46$ ,  $ps < .05$ ]. See Table 8. Table 9 provides those differences indicated by using Bonferroni-corrected pairwise comparisons ( $ps < .05$ ).

*Table 8 Outcomes by Course Type*

	<b>Identify</b>	<b>Locate</b>	<b>Evaluate</b>	<b>Use Info</b>	<b>Citation</b>
100-level no prereqs (n=201)	2.95 (0.91)	3.11 (0.90)	2.81 (0.86)	2.84 (0.97)	2.81 (0.96)
100-level with prereqs (n=4)	3.75 (0.50)	3.50 (0.58)	3.50 (0.58)	3.00 (1.41)	3.00 (1.41)
200-level regular (n=112)	3.33 (0.86)	3.16 (0.91)	3.07 (0.91)	2.99 (0.82)	2.79 (1.01)
200-level capstone (n=80)	3.30 (0.80)	3.41 (0.77)	3.41 (0.76)	3.28 (0.71)	3.29 (0.73)

*Table 9 Comparisons within ISLO items by course type*

Identify	100-level no prereqs < 200-level regular and 200-level capstone
Locate	100-level no prereqs < 200 capstone
Evaluate	100-level no prereqs < 200-level regular < 200-level capstone
Use Info	100-level no prereqs < 200-level capstone
Citation	100-level no prereqs and 200-level regular < 200-level capstone

The continuing impact of the COVID-19 pandemic on course delivery modalities has also sparked interest in the differences in courses taught in-person and those taught in online formats. Using independent t-tests, courses with an in-person component (traditional face-to-face and hybrid courses) were compared to those taught wholly online. The outcomes for the in-person courses were higher in Locate, Use Info, and Citation [ $t_s(395) > 2.50, p_s < .05$ ]. Please see Table 10.

*Table 10 Instructional Method*

	<b>Identify</b>	<b>Locate</b>	<b>Evaluate</b>	<b>Use Info</b>	<b>Citation</b>
Traditional/Hybrid (n=282)	3.13 (0.86)	3.26 (0.84)	3.05 (0.84)	3.04 (0.89)	3.01 (0.93)
Online (n=115)	3.14 (0.96)	3.01 (0.95)	2.92 (0.97)	2.80 (0.89)	2.63 (0.97)

Finally, for descriptive purposes, as no inferential statistics were computed, Table 11 provides the results in each course assessed.

*Table 11 Results by Course*

	<b>Identify</b>	<b>Locate</b>	<b>Evaluate</b>	<b>Use Info</b>	<b>Citation</b>
AHS 100 (n=18)	2.39 (0.78)	2.44 (0.62)	2.39 (0.61)	2.39 (0.7)	2.28 (0.83)
BHS 103 (n=47)	2.91 (1.04)	3.55 (0.65)	2.94 (0.92)	2.62 (0.9)	2.55 (0.90)
BHS 207 (n=5)	4.00 (0)	4.00 (0)	3.00 (0)	4.00 (0)	4.00 (0)
BHS 245 (n=48)	3.48 (0.87)	3.23 (0.90)	3.19 (0.91)	3.25 (0.89)	3.21 (1.03)
CRJ 253 (n=14)	2.21 (0.89)	2.21 (0.80)	2.36 (0.74)	2.43 (0.76)	2.14 (0.86)
CRJ 266 (n=26)	3.15 (0.54)	3.04 (0.66)	3.00 (0.57)	2.85 (0.46)	3.08 (0.27)
ECH 254 (n=23)	2.91 (0.29)	2.61 (0.50)	2.39 (0.58)	2.39 (0.50)	1.91 (0.73)
ELT 250 (n=13)	2.54 (0.52)	2.54 (0.52)	2.62 (0.65)	2.92 (0.28)	2.54 (0.66)
ENG 101 (n=62)	2.79 (0.70)	2.76 (0.72)	2.61 (0.73)	2.69 (0.84)	2.63 (0.91)
ESW 100 (n=28)	3.61 (0.50)	3.93 (0.26)	3.39 (0.57)	3.93 (0.26)	3.89 (0.31)
HIS 104 (n=10)	4.00 (0)	4.00 (0)	3.40 (0.84)	3.80 (0.42)	3.90 (0.32)
NUR 215 (n=22)	4.00 (0)	4.00 (0)	4.00 (0)	3.18 (0.39)	2.95 (0.21)
NUR 218 (n=41)	3.63 (0.83)	3.93 (0.47)	3.93 (0.47)	3.66 (0.73)	3.66 (0.73)
PAL 120 (n=6)	3.00 (0.63)	2.33 (0.52)	2.83 (0.41)	2.67 (1.03)	2.67 (0.52)
PAR 102 (n=4)	3.75 (0.50)	3.50 (0.58)	3.50 (0.58)	3.00 (1.41)	3.00 (1.41)
PFA 100 (n=13)	3.08 (0.86)	3.00 (1.08)	3.08 (0.28)	2.92 (1.12)	3.08 (0.28)
SCI 100 (n=17)	2.41 (1.18)	2.35 (1.22)	2.12 (1.22)	2.12 (0.99)	2.18 (1.01)

### 3.4 Current Assessment Cycle Compared to Last Cycle

ISLO5 was last assessed during the 2018-2019 academic year. While the sample size for this cycle's assessment was lower than the last one (n=397 v. n=583), the fact that the same rubric was used in both allowed for comparative analyses. The percentage of students assessed in the current cycle who met expectations (a score of 2/3/4) increased in all ISLO items in comparison to 2018-2019 (see Table 12). Those outcomes represent only those students who had ratings for all items. An independent t-test also revealed that the ratings for Identify, Locate, Evaluate, and Citation were all significantly higher in 2021-2022 than in 2018-2019, indicating improved outcomes [ts (978) > 2.05, ps < .050]. Table 13 provides those results.

*Table 12 Percentage of students meeting outcomes, 2018-2019 v. 2021-2022*

<b>Meeting expectations</b>	<b>Identify</b>	<b>Locate</b>	<b>Evaluate</b>	<b>Use Info</b>	<b>Citation</b>
AY1819	93.1%	92.1%	89.0%	91.9%	79.2%
AY2122	94.2%	96.2%	95.0%	94.5%	91.4%

*Table 13 Comparison of outcomes, 2018-2019 v. 2021-2022*

<b>Average ratings</b>	<b>Identify</b>	<b>Locate</b>	<b>Evaluate</b>	<b>Use Info</b>	<b>Citation</b>
AY1819	3.02 (0.91)	2.97 (0.97)	2.80 (0.97)	2.91 (0.92)	2.55 (1.15)
AY2122	3.14 (0.89)	3.19 (0.88)	3.01 (0.88)	2.97 (0.90)	2.90 (0.95)

### 3.5 Student Services and Assessment Outcomes

Student use of the Writing Center was tracked for this assessment. Independent t-tests were used to compare the outcomes of students who had or who had not used the services of the Writing Center during the semester in which the assessment occurred. Table 14 shows that students who used the Center outperformed those who had not [ts (395) > 2.77, ps < .05].

*Table 14 Outcomes based on Writing Center usage*

	<b>Identify</b>	<b>Locate</b>	<b>Evaluate</b>	<b>Use Info</b>	<b>Citation</b>
Yes, used Writing Center (n=116)	3.33 (0.88)	3.47 (0.86)	3.34 (0.89)	3.19 (0.89)	3.16 (0.9)
No (n=281)	3.06 (0.88)	3.07 (0.87)	2.88 (0.84)	2.88 (0.88)	2.80 (0.96)

The staff at the Ritz Library conducted a student survey throughout the academic year on perceptions regarding information literacy. The survey itself and the full results can be found in Appendix E. Overall, the effort yielded 105 total responses, a small number compared to the 1,503 students who attended information literacy sessions at the library during the 2021-2022 school year, so the results should be viewed within that context. Overall, 96% of respondents felt somewhat confident to extremely confident in their ability to locate, evaluate, and use information effectively, and 95% of respondents correctly identified the components of information literacy (by selecting all three choices and/or "all of the above" in question #2). 71% of respondents correctly defined aspects of plagiarism (by selecting the first and third choice), and an additional 21% of respondents chose one of the two correct choices.

The survey included a fourth, open-ended question asking students to describe their process for evaluating information, including how they can tell if a source is reliable. 80% of respondents included an answer to that question. A review of those responses finds three main themes emerge:

- a recognition of the need to find multiple sources in order to corroborate the validity of the information;
- an effort to ascertain the credentials of the source, be it the author or the publication (including websites); and,
- an awareness of the appropriateness and credibility of the search tools themselves (i.e., using the college library’s databases, limiting internet searching to only reliable websites, and, as many students noted, avoiding sites such as Wikipedia).

Overall, given these results, the library staff sees a disconnect between the level of confidence students suggest in the first and fourth questions with the accuracy of their answers in the second and third.

### 3.6 Assessment Results Disaggregated by Program

ISLO5-Information Literacy and Technological Competency outcomes are disaggregated by program (see Table 15). Appendix C provides an accounting of which courses students were assessed in for each program and how many students were in each of those courses. This data allows program chairs to know if students in their programs were assessed, and if the major-specific data is generalizable to the program as a whole.

*Table 15 Results by Program*

	<b>Identify</b>	<b>Locate</b>	<b>Evaluate</b>	<b>Use Info</b>	<b>Citation</b>
ACC (n=2)	2.50 (0.71)	2.50 (0.71)	3.50 (0.71)	2.00 (0)	3.00 (1.41)
ACR (n=1)	1.00 (0)	2.00 (0)	1.00 (0)	1.00 (0)	1.00 (0)
ARC (n=2)	3.00 (1.41)	3.50 (0.71)	3.50 (0.71)	3.00 (1.41)	3.50 (0.71)
AVI (n=3)	3.67 (0.58)	3.33 (0.58)	2.67 (0.58)	3.67 (0.58)	3.67 (0.58)
BAT (n=8)	2.50 (0.93)	3.00 (1.07)	2.50 (0.93)	2.38 (1.19)	2.25 (1.04)
BUS (n=2)	2.00 (0)	2.00 (0)	2.50 (0.71)	2.00 (0)	2.00 (0)
CIS (n=2)	2.00 (1.41)	3.50 (0.71)	2.00 (1.41)	2.00 (0)	2.00 (0)
CMH (n=2)	3.00 (1.41)	2.50 (0.71)	2.50 (0.71)	2.50 (0.71)	2.00 (1.41)
CNS (n=1)	3.00 (0)	3.00 (0)	3.00 (0)	2.00 (0)	2.00 (0)
COM (n=8)	2.75 (1.04)	3.25 (0.71)	2.63 (0.92)	2.75 (0.71)	3.00 (0.76)
CPS (n=10)	2.80 (0.42)	3.00 (0.67)	2.70 (0.67)	2.80 (0.79)	2.70 (0.82)
CRJ (n=8)	1.88 (0.83)	1.88 (0.64)	2.13 (0.64)	2.13 (0.83)	1.75 (0.71)
CRT (n=31)	2.97 (0.71)	2.90 (0.75)	2.87 (0.67)	2.74 (0.51)	2.90 (0.54)
ECH (n=5)	3.00 (0)	2.60 (0.55)	2.40 (0.55)	2.40 (0.55)	2.00 (1.00)
EDH (n=3)	2.67 (0.58)	3.00 (1.73)	3.00 (1.00)	3.00 (1.00)	2.67 (1.53)
EDL (n=1)	4.00 (0)	4.00 (0)	4.00 (0)	4.00 (0)	4.00 (0)
EDS (n=2)	3.00 (1.41)	3.00 (1.41)	3.00 (0)	3.00 (1.41)	3.00 (1.41)
EED (n=27)	3.15 (0.60)	2.96 (0.76)	2.59 (0.69)	2.78 (0.80)	2.48 (1.05)
ELT (n=14)	2.43 (0.65)	2.57 (0.51)	2.57 (0.65)	2.79 (0.58)	2.43 (0.76)
ENR (n=6)	3.33 (0.52)	2.83 (0.98)	2.83 (0.75)	3.00 (0.89)	2.33 (0.52)
ESW (n=25)	3.48 (0.77)	3.88 (0.44)	3.28 (0.79)	3.80 (0.58)	3.76 (0.60)
GSP (n=32)	3.09 (0.82)	3.34 (0.65)	3.00 (0.84)	2.75 (0.84)	2.72 (0.96)
HMS (n=53)	3.51 (0.85)	3.30 (0.89)	3.21 (0.91)	3.28 (0.86)	3.26 (0.96)
LAH (n=10)	2.90 (1.10)	3.20 (1.03)	2.60 (0.97)	2.80 (1.03)	2.60 (1.07)
LAX (n=22)	2.73 (1.08)	2.68 (1.13)	2.45 (1.18)	2.45 (1.01)	2.50 (1.06)
MLT (n=8)	2.63 (0.52)	2.63 (0.52)	2.50 (0.53)	2.63 (0.52)	2.50 (0.76)
NUR (n=63)	3.76 (0.69)	3.95 (0.38)	3.95 (0.38)	3.49 (0.67)	3.41 (0.69)

PAL (n=6)	3.00 (0.63)	2.50 (0.55)	2.83 (0.41)	2.67 (1.03)	2.67 (0.52)
PAR (n=2)	3.50 (0.71)	3.50 (0.71)	3.50 (0.71)	2.50 (2.12)	2.50 (2.12)
PBH (n=1)	4.00 (0)	3.00 (0)	3.00 (0)	4.00 (0)	4.00 (0)
PDC (n=9)	2.22 (0.83)	2.33 (0.50)	2.33 (0.50)	2.22 (0.67)	2.00 (0.87)
PFA (n=12)	3.08 (0.90)	3.00 (1.13)	3.08 (0.29)	2.83 (1.11)	3.08 (0.29)
PLL (n=1)	3.00 (0)	2.00 (0)	3.00 (0)	3.00 (0)	3.00 (0)
PRR (n=2)	4.00 (0)	3.50 (0.71)	3.50 (0.71)	3.50 (0.71)	3.50 (0.71)
UND (n=10)	3.10 (0.88)	3.00 (0.94)	2.70 (0.82)	3.20 (0.92)	2.90 (0.99)
VAT (n=3)	3.00 (0)	4.00 (0)	3.00 (0)	2.67 (1.53)	3.00 (1.00)

### 3.7 Assessment Results Relevant to Diversity, Equity, and Inclusion

Beginning with the assessment cycle of 2020-2021, the Diversity Council at Dutchess Community College requested data based on student demographic information be collected as part of the assessment processes in order to shed light on how well DCC is reaching its goals of helping all students meet the institutional student learning outcomes. To that end, outcomes based on gender, race/ethnicity, age group, and Pell status are presented below with analysis.

**Gender.** Used independent t-test. Women outperformed Men on all ISLO items,  $t_s(395) > 2.68$ ,  $p_s < .01$ .

*Table 16 Results by Gender*

	Identify	Locate	Evaluate	Use Info	Citation
Male (n=159)	2.86 (0.96)	3.01 (0.94)	2.78 (0.88)	2.82 (0.92)	2.75 (0.97)
Female (n=238)	3.32 (0.79)	3.31 (0.82)	3.17 (0.85)	3.07 (0.87)	3.01 (0.93)

**Race/Ethnicity.** Used Oneway ANOVA. Overall significant differences were found for all ISLO items,  $F_s(2,349) > 7.75$ ,  $p_s < .001$ . Bonferroni-corrected pairwise comparisons indicated that White and Hispanic students outperformed Black students on all ISLO items ( $p_s < .05$ ).

*Table 17 Results by Race/Ethnicity*

	Identify	Locate	Evaluate	Use Info	Citation
White (n=212)	3.27 (0.84)	3.31 (0.84)	3.11 (0.87)	3.13 (0.86)	3.03 (0.94)
Hispanic (n=100)	3.11 (0.85)	3.20 (0.84)	2.97 (0.92)	2.91 (0.83)	2.89 (0.93)
Black (n=40)	2.48 (1.04)	2.53 (1.01)	2.53 (0.78)	2.38 (1.00)	2.30 (0.99)
Asian (n=9)	3.00 (1.12)	3.11 (0.93)	3.00 (0.87)	2.56 (1.01)	2.78 (0.97)
Native American (n=2)	2.50 (0.71)	2.50 (0.71)	2.50 (0.71)	3.00 (1.41)	3.50 (0.71)
Two or more races (n=18)	3.44 (0.70)	3.56 (0.78)	3.39 (0.7)	3.33 (0.77)	3.28 (0.75)
Nonresident Alien (n=8)	2.75 (0.89)	2.88 (0.64)	2.63 (0.92)	2.75 (0.71)	2.50 (0.76)
Unknown (n=8)	3.13 (0.64)	2.88 (0.83)	3.00 (0.76)	2.50 (0.76)	2.38 (0.74)

**Age Group.** Used independent t-test. The non-traditional 25 or older students outperformed the younger 16 to 24-year-old students on all ISLO items,  $t_s(395) > 2.63$ ,  $p_s < .01$ .

*Table 18 Results by Age Group*

	Identify	Locate	Evaluate	Use Info	Citation
16 to 24 (n=299)	3.03 (0.90)	3.11 (0.89)	2.88 (0.87)	2.89 (0.90)	2.83 (0.97)
25 or older (n=98)	3.46 (0.79)	3.44 (0.80)	3.43 (0.79)	3.22 (0.83)	3.12 (0.89)



**Pell Recipient.** Used independent t-test. Non-Pell students outperformed Pell students on Locate,  $t(395) = 2.57, p = .011$ .

*Table 19 Results by Pell Status*

	<b>Identify</b>	<b>Locate</b>	<b>Evaluate</b>	<b>Use Info</b>	<b>Citation</b>
Pell (n=140)	3.06 (0.92)	3.04 (0.92)	2.94 (0.90)	2.87 (0.92)	2.83 (1.00)
No Pell (n=257)	3.18 (0.87)	3.27 (0.85)	3.05 (0.87)	3.03 (0.88)	2.95 (0.93)

### *3.8 Faculty Perspectives (Summary of Narrative Data Results)*

Faculty were asked to provide comments on the rubric results of the assessments as they entered that quantitative data into the TracDat system, as well as other input they had on how students performed, how the skills were taught in their classrooms, and other observations they had relevant to this assessment. A full reporting of that commentary is provided in Appendix D. Below is a summary of the key points from that qualitative data as analyzed by the Faculty Assessment Leader.

- Scaffolding:** A clear indication across the disciplines remains the fact that when faculty scaffold assignments for students—starting with clear assignment guidelines and then moving through class lessons and practice, providing feedback along the way—the faculty perceive the outcomes in this assessment to be stronger. A number of faculty noted how using multiple drafts or submissions allowed students to build the skill little by little with the support of the faculty, their peers, or other student services. The library remains a key partner for that latter point. Faculty who utilized the library resources, both for in-class instruction and out-of-class assistance, found students had a better grasp on how to locate and evaluate information. The faculty narratives also revealed a perception that students in capstone and other 200-level courses displayed comparatively stronger skills, which coincides with the rubric data revealing that those students do outperform their peers in 100-level courses, indicating that those skills build over time within programs.
- Course Selection:** There was a range of courses used for this assessment. Faculty teaching in introductory classes (not only introductory seminars, but also courses typically taken in a student’s first semester at DCC, such as BHS103) found that students struggled more with the particular aspects of information literacy assessed. For a number of those courses, faculty indicated that students were being introduced to these skills, often for the first time, particularly in regards to college-level expectations of how to access and evaluate information. The data above regarding the comparatively stronger outcomes in 200-level courses reinforces this point. Other faculty felt the rubric was not a strong fit for the work of the particular course being assessed, and that therefore that course should be removed from the list for the next assessment cycle (or that the rubric may need to be revised to better fit these courses).
- Rubric Concerns:** As just noted, there were some underlining statements in the faculty narratives regarding the applicability of the rubric. Similar statements can be found



regarding what some faculty felt was the vagueness or overly broad nature of the language within the rubric.

- **Trouble with Citations:** While some faculty indicated that they have perceived student improvement in areas like identifying the need for information and locating sources, they still believe students struggle with evaluating the reliability of those sources and using them effectively (especially beyond simply quoting from those sources). However, the appropriate and correct use of citations remains the area in which faculty perceive the greatest need for improvement.
- **Social/Emotional Skills and Issues Outside the Classroom:** Faculty also noted how perceived difficulties with the so-called “soft skills” important across disciplines—perseverance, attendance, focus, effort, communication—often lead to weaker outcomes in these assessments. At least one faculty member directly stated how the ongoing pandemic and the students’ experiences within it over the last few years certainly has had an impact on those areas of their development. Attrition within the courses also impacted the response rates for the assessments itself. Connected to these points are faculty concerns about issues outside the classroom that might be leading to students’ lack of engagement, persistence, and attendance, such as housing or food insecurity, financial issues, childcare, etc. Many faculty called for more student support systems outside of the classroom, with one faculty member asking for new ways to engage and communicate with the students in the dormitories.

## 4 Summarize Conclusions Drawn and Action Plan for Improvement

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The 2021-2022 assessment of ISLO5-Information Literacy and Technological Competency collected data from a range of courses across disciplines and programs, totaling 397 valid assessments in all. Overall, the results of those assessments reveal that student outcomes for this skill have improved from the last time they were assessed (in 2018-2019), a positive trend to note. They also indicate that students are generally meeting desired outcomes for skill development in this area.

Conclusions are presented below relative to the specific research questions asked. Following that are some general conclusions and suggestions for future assessments.

*Are there differences in outcomes based on student age groups, which might also point to outcomes for traditional v. non-traditional aged students?*

The rubric data reveals that non-traditional aged students outperformed traditional aged students in all areas. These results suggest that students with more life experience may have developed stronger information literacy skills. Furthermore, continuing students outperformed new first-time students in all categories, and significantly in Identify, Locate, and Evaluate, and students in 200-level courses outperformed those in 100-level courses in Identify, Evaluate, and Use Info. These outcomes coincide with faculty narrative data regarding the courses used within this assessment, in which they indicated that students in 100-level courses were just being introduced to these skills and perhaps should not be expected to perform as well as students in later courses. Meanwhile, for the Human Services (HMS) program, faculty found that while non-traditional students display more stress regarding certain parts of information literacy, such as accurately using either MLA or APA formatting, they tend to work hard to educate themselves about those skills, and show less anxiety as a group regarding information literacy overall. All of these results together suggest that students develop stronger information literacy skills over time, and potentially that our programs are building those skills from semester to semester.

Connected to this outcome, in ways, was the observation by faculty for how scaffolding assignments can help to strengthen student skill. As students are introduced to information literacy in their 100-level courses, they can be provided opportunities to slowly work through the steps of finding, evaluating, and using information appropriately to help them gain the requisite skills to succeed within that course. In turn, programs can then continue to scaffold the skills, expecting more of students as those skills are reinforced within a program. An example of this work comes from the Electrical Technology (ELT) program, in which faculty made a concerted effort over the last few years to scaffold the learning within that program, creating new assignments that introduce information literacy skills early on, then reinforce them over the course of a number of classes. They have found these changes to be beneficial to student outcomes. Efforts like this one in all programs could help to build these skills effectively over time.

It should be stated, though, that while more attention could be paid to how the skills are introduced in 100-level courses, the outcomes in 100-level courses without prerequisites (a combined average score of 2.90, or nearly into the moderate competency range) suggest that students are reaching an adequate level of skill development there.

***What impact do student services outside the classroom have on outcomes for ISLO5 (i.e., library courses and resources, Writing Center workshops, CREDO, etc.)?***

The sample size for the student survey administered by the library is too small to draw substantial conclusions, but it still reveals perspectives that might help to contextualize faculty efforts to build information literacy within their students. Students display a definite confidence in their ability to locate and evaluate information, and those that described their process for doing

that work reveal an awareness of some of the steps faculty and library staff encourage them to use. However, as the library staff noted in their review of the survey results, there appears to be a slight disconnect between student perception and their actual awareness of what information literacy truly entails.

The college has yet to directly tie attendance at the library's information literacy sessions to the results of the ISLO5 assessment, so future cycles should attempt to do that. Data from the library shows that use of those sessions decreased substantially during the pandemic (a year-over-year drop of roughly 17% in the number of sections, students, and faculty from 2018-2019 to 2019-2020, and then about a 70% drop in those same numbers from 2019-2020 to 2020-2021), though they rebounded by nearly 95% this past academic year (see Appendix E). Without data showing the connection between attendance at those sessions and outcomes in the assessment, it remains difficult to make clear recommendations about their use<sup>1</sup>, but the overwhelming faculty perspective from those who bring their students to those sessions is that they are beneficial. Furthermore, faculty feel strongly that the CREDO resources the library provides serve to reinforce information literacy skills effectively for students, and that this resource should remain for future students. CREDO is fully customizable for each course on campus, and the librarians are available to assist faculty in creating the best resources for their classes and assignments. The library has also recently acquired the ProQuest Research Companion, another resource faculty should find useful.

The library staff has updated their offerings substantially over the last few years, making the information literacy classes more hands-on and offering specific sessions in MLA and APA documentation and smarter internet searching, among other resources (according to the library staff, interest in APA formatting workshops has increased substantially, and they will be offering more of those in future semesters). Faculty should be encouraged to continue to engage their classes with those resources. A workshop highlighting these additions and changes might also serve to educate faculty on how they can best utilize the library resources.

The student survey, or something similar to it, should also be conducted again in the next cycle.

The rubric data from this cycle makes clear that use of the Writing Center had a direct and positive impact on student outcomes. The Faculty Assessment Leader has already begun to work directly with the Director of the Writing Center on workshops for faculty to help improve outcomes in the written communication student learning outcome; others that focus on information literacy pedagogy would also be helpful. Faculty should also be encouraged to

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<sup>1</sup> Statistical analyses of the students who completed the assessment and the library survey (n=25) revealed no significant correlations between their outcomes, but a more concerted effort in future assessments to increase the sample size might provide more insight.

enlist the Center's resources for assistance in reinforcing information literacy skills within their courses, for particular assignments, etc.

***Is there a difference in outcome for students currently enrolled in a developmental ENG course (ENG091, ENG092, ENG003), students who successfully completed one of those courses, and students who never took one?***

The data was not parsed out to differentiate between those currently enrolled in a development ENG course and those who had successfully completed one; however, as noted in section 3, independent t-tests revealed that students who either were currently enrolled in or had already successfully completed a development ENG course underperformed those who had not taken one of those courses. That outcome should not be surprising, as students who test into developmental courses come into Dutchess Community College lacking some of the requisite writing and reading skills for success in college courses, which can be correlated to information literacy skills, as well. It should be noted, though, that the outcomes for the developmental course group all averaged within the range of modest competency (average score, 2.69), beyond where faculty might expect a student to be upon first entering college. However, perhaps further attention could be paid to how information literacy is introduced within the ENG101/ENG003 corequisite courses. ENG faculty might consider a review of best practices within those courses, as well as continuing to develop ties between the courses and the resources outside of the classroom that have proven to positively impact these skills (such as the library and the Writing Center). One such method suggested by ENG faculty was the use of research groups, in which students work together to learn to utilize the resources both in the library and on the web more generally, all supervised by the faculty member. Students are able to share sources with each other and, in general, build a sense of community as they learn the skills together.

### *General Conclusions*

As noted, the improvement in overall student outcomes from 2018-2019 to this academic year is a positive result, which indicates the college is meeting its goal of developing information literacy skills within its students. It seems most important to point out the significant improvement in scores in the area of Citations, which was an area of great concern for faculty during the last cycle. A quick poll of faculty conducted in September 2022 found that 57.4% of those surveyed (n=54) have focused more specifically on students' abilities to construct accurate citations in their assignments, either through direct instruction, suggestions to attend workshops held by the library and/or Writing Center, grading practices, or other approaches. Another 18.5% said they have focused "somewhat" more on those areas, meaning nearly 76% of those surveyed feel they have given further attention to that skill over the last few years, perhaps impacting the outcomes (see Appendix F for the survey results). However, faculty narratives continued to focus on a disconnect between those scores and the faculty perspectives regarding

student ability with citations in the classroom, and so further work to offer students more help in citing their source material might help to bridge the gap between the rubric scores and faculty perspectives. Furthermore, the positive outcome might be attributed to the increased number of student workshops offered by the Writing Center and the library. However, faculty also noted that student use of citation generators, as well as the fact that many databases provide citations for users now, may have impacted the results. Faculty also displayed a concern that students did not actively check those generators for accuracy, or would cut and paste citations from databases without reformatting them correctly, so clearly there is still some work to be done in that area. So, there are a number of factors that might have led to this particular outcome, and future assessments might look to isolate any one of them to better understand the results.

Finally, the faculty members' concerns regarding the social/emotional issues of DCC's students should be addressed in all relevant areas of the campus. Students who lack engagement with their courses, who struggle with housing or food insecurity, who need assistance with access to technology, etc., all will likely see impacts on their skill development, not just in information literacy and technological competency, but across all ISLOs. Continued support of programs such as DCC Cares, scholarship programs, the day care center, and other student services can help to alleviate some of these concerns, as could a campus-wide initiative to devote more attention to those issues over the next few academic years within all departments and offices. Faculty also provided other suggestions to help learn about students and possibly provide ways for them to reveal those struggles in safe, private, and effective ways. Those suggestions include providing students more opportunities for self-reflection, which often is encouraged through a portfolio approach to assignments; helping students learn about and find the campus resources meant to assist with these issues, which often occurs in introductory seminars and other courses at the start of academic programs; and some kind of capstone course or experience built into programs.

<b>Result/Conclusion</b>	<b>Recommendation for Action</b>
Non-traditional aged students and those in upper-level courses outperformed traditional aged students and those in 100-level courses.	Encourage faculty to scaffold assignments, especially for students in 100-level courses, to help them build the skills necessary for advanced information literacy and technological competency.
Students who used the Writing Center outperformed those who did not.	Provide the Writing Center needed resources to continue to develop and expand their services in assisting DCC students. Encourage more faculty to engage with the Center to enhance course instruction on ISLO5 skills.

Library student survey reveals a disconnect between student and faculty perceptions on their skills development, as well as on their knowledge of certain components of information literacy.	Encourage faculty and students to use the library resources. Rerun the student survey to continue to collect data.
Students who had not taken a developmental ENG course outperformed those who had.	Faculty Assessment Leader (and potentially the Discipline Leader for ISLO5) meet with ENG faculty to discuss best practices in teaching ISLO5 skills in the developmental classes.
Student outcomes in the area of Citation improved from the 2018-2019 assessment of ISLO5.	Encourage faculty to continue to emphasize correct citation creation. Continue to provide workshops for students on MLA and APA formatting.
Faculty expressed concerns about non-classroom issues impacting student success, such as social/emotional learning, economic and health issues, etc.	A call for a campus-wide initiative to focus on the impact of those issues on student success, involving the PSO, student services, and other relevant college offices and departments.

## 5 Recommendations for Resources Needed to Implement Action Plan

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Recommendation for Action	Potential Resources
Encourage faculty to scaffold assignments, especially for students in 100-level courses, to help them build the skills necessary for advanced information literacy and technological competency.	FAL and Associate Dean of Instruction and Learning discuss with faculty and program chairs to review courses and programs where this scaffolding might occur. Workshops on best practices in Information Literacy pedagogy, offered via the library and/or Writing Center.
Provide the Writing Center needed resources to continue to develop and expand their services in assisting DCC students. Encourage more faculty to engage with the Center to enhance course instruction on ISLO5 skills.	Potential budgetary impact on Writing Center to allow them to expand services. FAL and Associate Dean of Instruction and Learning present findings to Program Chairs Council and Departmental Affairs Council to

	encourage engagement with the Writing Center across disciplines.
Encourage faculty and students to use the library resources. Rerun the student survey to continue to collect data.	Provide new library director with necessary resources to enhance and run student surveys in future semesters. FAL and Associate Dean of Instruction and Learning encourage faculty to incorporate library resources into courses.
Faculty Assessment Leader (and potentially the Discipline Leader for ISLO5) meet with ENG faculty to discuss best practices in teaching ISLO5 skills in the developmental classes.	Time and resources for FAL and faculty to meet; potential resources to compensate part-time faculty to participate in this work.
Encourage faculty to continue to emphasize correct citation creation. Continue to provide workshops for students on MLA and APA formatting.	Resources for library and Writing Center to develop, revise, enhance, and provide workshops.
A call for a campus-wide initiative to focus on the impact of non-classroom issues on student success, involving the PSO, student services, and other relevant college offices and departments.	FAL to meet with shared governance leaders to discuss potential for campus-wide initiatives. Associate Dean of Instruction and Learning provide input to college cabinet and other related offices on this issue.

## Appendix A: ISLO5 Rubric

### ISLO 5 – Information Literacy and Technological Competency Rubric

Students will be able to identify the need for more information, locate electronic media using appropriate technology including but not limited to the internet, evaluate the credibility of information thus obtained, use information effectively to accomplish a specific purpose, and properly use and cite sources of information.

CATEGORY	Advanced Competency - 4	Moderate Competency - 3	Modest Competency - 2	Developing Competency - 1
<b>Identify the need for information</b>	Effectively determines key concepts based of the problem/thesis being investigated. Types of information (sources) selected directly relate to identified key concepts.	Determines key concepts based of the problem/thesis being investigated. Types of information (sources) selected directly relate to identified key concepts.	Incompletely determines key concepts based of the problem/thesis being investigated (parts are missing, remains too broad or too narrow, etc.). Types of information (sources) selected partially relate to identified key concepts.	Has difficulty determining the key concepts of the problem/thesis being investigated. Types of information (sources) selected do not relate to key concepts.
<b>Locate electronic media using appropriate technology including but not limited to the internet</b>	Accesses information using effective, well designed search strategies and most appropriate information sources.	Accesses information using variety of search strategies and some relevant information sources. Demonstrates ability to refine search.	Accesses information using simple search strategies, retrieves information from limited and similar sources.	Accesses information randomly, retrieves information that lacks relevance and quality.
<b>Evaluate the credibility of information published on the internet</b>	All information gathered from internet is drawn from credible sources as indicated by the expertise of the authors, the critical review required for publication, acknowledged bias of the source if applicable, and publication date.	Most information gathered from internet is drawn from credible sources as indicated by the expertise of the authors, the critical review required for publication, acknowledged bias of the source if applicable, and publication date.	Information gathered from internet is not consistently drawn from credible sources as indicated by the expertise of the authors, the critical review required for publication, acknowledged bias of the source if applicable, and publication date.	Information gathered from internet is drawn from sources without regard to the expertise of the authors, the critical review required for publication, acknowledged bias of the source if applicable, and publication date.
<b>Use information effectively to accomplish specific purpose</b>	Communicates, organizes and synthesizes information from sources to fully achieve a specific purpose, with clarity and depth.	Communicates, organizes and synthesizes information from sources. Intended purpose is achieved.	Communicates and organizes information from sources. The information is not yet synthesized, so the intended purpose is not fully achieved.	Communicates information from sources. The information is fragmented and/or used inappropriately (misquoted, taken out of context, or incorrectly paraphrased, etc.), so the intended purpose is not achieved.

CATEGORY	Advanced Competency - 4	Moderate Competency - 3	Modest Competency - 2	Developing Competency - 1
<b>Properly uses and cites sources of information</b>	Students use correctly all of the following information use strategies (use of citations and references; choice of paraphrasing, summary, or quoting; using information in ways that are true to original context; distinguishing between common knowledge and ideas requiring attribution) and demonstrate a full understanding of the ethical and legal restrictions on the use of published, confidential, and/or proprietary information.	Students use correctly three of the following information use strategies (use of citations and references; choice of paraphrasing, summary, or quoting; using information in ways that are true to original context; distinguishing between common knowledge and ideas requiring attribution) and demonstrates a full understanding of the ethical and legal restrictions on the use of published, confidential, and/or proprietary information.	Students use correctly two of the following information use strategies (use of citations and references; choice of paraphrasing, summary, or quoting; using information in ways that are true to original context; distinguishing between common knowledge and ideas requiring attribution) and demonstrates a full understanding of the ethical and legal restrictions on the use of published, confidential, and/or proprietary information.	Students use correctly one of the following information use strategies (use of citations and references; choice of paraphrasing, summary, or quoting; using information in ways that are true to original context; distinguishing between common knowledge and ideas requiring attribution) and demonstrates a full understanding of the ethical and legal restrictions on the use of published, confidential, and/or proprietary information.



## **Appendix B:** Samples of Assignments Used in the Assessment

### ***BHS 103***

*Identify the need for information:* Sociologists collect empirical data on the population in poverty such as through the census. **Assignment:** Explain at least three things that you learned in the course. Your discussion of what you learned should reflect sociological thinking (understanding how the way society is organized shapes people and their behaviors).

The assignment should be written in essay format (double spaced, and please do not skip extra spaces between paragraphs). The introductory paragraph should indicate the three things you learned. The body of the essay should consist of three paragraphs, one for each of the things you learned in the order they were mentioned in the introductory paragraph. The conclusion should summarize the three things learned and should add a final thought. The assignment should be about two pages in length.

Please be detailed, precise, and provide examples and or data where suitable. Also, upon presenting information or data, please provide parenthetical references indicating where you got the information or data from. For the purposes of this course the references can include the title of the reading and page number, title of video lecture, or title of PowerPoint and slide number.

*Locate electronic media using appropriate technology including but not limited to the internet.*

**Assignment:** Find a social-science research article using our library databases. Present the abstract of the article, along with the bibliographic reference. Use APA format (see contents section of Blackboard) for providing the correct bibliographic reference.

A social-science research article is one published in social-science academic journals. Such an article will have the elements of a scientific study (which we discussed in Module 2): a research objective/question, sometimes a hypothesis, a methodology section discussing how the data/evidence were collected (survey, interviews, ethnography, participant observation, content analysis, historical sources), a discussion of how data/evidence were analyzed, a results section, and conclusions.

*Evaluate the credibility of information published on the internet.* **Assignment:** “The cost of tuition is rising at a faster rate than family income or student financial aid. In response to shrinking state budgets and endowments, during the 2009-2010 academic year, the average total fees (tuition, room, board) increased more than the rate of inflation, particularly at 4-year public universities. At a 4-year public institution, total fees were \$18,548 (6.4% increase from 2008-2009); at 4-year private institutions, the average cost was \$26,273 (a 4.4% increase from 2008-2009; College Board 2009)” (in Leon-Guerrero 2011:7).

Is the excerpt provided above an example of the subjective approach or the objective approach to the construction of a social problem? Explain your answer.

Pres. Trump makes this claim in order to justify building a border wall between the U.S. and Canada: “Over the years, thousands of Americans have been brutally killed by those who illegally entered our country, and thousands more lives will be lost if we don’t act right now” (see attached article).

Is Pres. Trump’s claim an example of the subjective approach or the objective approach to the construction of a social problem? Explain your answer.

*Use information effectively to accomplish specific purpose. Assignment:* The Duncan & Magnuson (2011) study (see p. 59 of textbook) used government data to follow children born between 1968 and 1975 until they were ages 30 to 37. The researchers compared individuals who lived in poverty in early childhood to those whose families had incomes at least twice the poverty line in early childhood. Compared to the latter group, adults who were poor in early childhood:

- had completed two fewer years of schooling on the average;
- had incomes that were less than half of those earned by adults who had wealthier childhoods;
- received \$826 more annually in food stamps on the average;
- were almost three times more likely to report being in poor health;
- were twice as likely to have been arrested (males only); and
- were five times as likely to have borne a child (females only).

It is the sociologist’s job having done the study and collected the data to explanation the results. How can we explain why poverty creates such negative long-term consequences for adults raised in it compared to those who are not? Use the links provided in the Powerpoint (slide 10; the article that discusses food insecurity is also attached) to explain in no less than four paragraphs. Provide references of the articles that you are using for your information. (See APA Format for Citations & Bibliography in the contents section of Blackboard.) To provide the reference it is common to indicate the author(s)’s last name and year of publication in parentheses following the information you use from that article.

*Properly uses and cites sources of information. Assignment:* same as above.

## ***ENG101***

Essay 4: For Essay 4, you will explore an issue in the K-12 school system and write an argument research essay in MLA Format of at least 5 pages and using at least 4 CREDIBLE sources.

- Review MLA Documentation: Finding and Incorporating Research. You are HIGHLY encouraged to use sources in the DCC Library Databases. Essays without 4 credible sources will not receive higher than a B.
- All sources must be effectively attributed and properly documented with internal citations within the essay and on a Works Cited page.

- This assignment will be completed in parts (proposal, plan, and rough draft) over the next several weeks; see syllabus for all due dates.

Possible Topics: You Must Choose From This List!

- Should all K-12 schools have School Resource Officers present at all times?
- Should sex education be required in the K-12 curriculum?
- Should standardized testing in the K-12 school system be abolished?
- Should K-12 students be required to stand for the Pledge of Allegiance?

Plagiarism Policy: Plagiarism is submitting someone else's work as your own and/or not citing the source of ideas that are not yours. Essays utilizing textual support and/or research **MUST** be properly documented.

- ANY assignment with any portion copied word for word or not fully paraphrased and/or without the source identified with an internal citation and on a Works Cited page will receive a zero, need to be resubmitted, and may incur further consequences.
- Essays and Short Writing Assignments will not receive higher than a B or 8 if the MLA Documentation and/or MLA Formatting are **INCORRECT**.

A complete, FREE guide to MLA Documentation can be found at: <https://owl.purdue.edu/owl/>

#### Essay 4 Proposal

The goal of the proposal step is to help you explore your issue, create a solid thesis, and fuel your introductory paragraph. Once your proposal has been graded and returned, you should immediately review the suggestions and make the necessary changes to construct your introductory paragraph.

Essay 4 Proposal Format: (Don't forget to include a heading, to double space, and to be in 3rd person, objective point of view.)

- **Topic Question:** The question from the above list that you will explore for answers.
- **Establishing the Issue:** What makes this topic controversial? What is the debate/problem? Thoroughly establishing the issue will become the context of your introductory paragraph, and it will help you recognize and refute your opposition, which you will need to do later in your essay.
- **Position:** The side you are taking on the topic; answer the topic question!
- **Reason(s):** State the reasons that support your position. This is the "because" to support your position. How can you defend your position?
- **Thesis:** Position + Reasons established in **ONE DECLARATIVE SENTENCE**.

## **ELT250**

Early in semester (week 5 or 6)

### **PART 5 – PREPARE AND DELIVER A POWERPOINT PRESENTATION**

First, if unfamiliar with presentation software like PowerPoint, spend some time getting familiar. PowerPoint support documentation is provided in the course book as well as in the Course Information folder in Bb. Once familiar, create an oral presentation to be used when demonstrating your working circuit and program to instructor. Make sure to submit your final copy of the presentation in the designated assignment dropbox in Bb. ***Presentations are made individually to the instructor alone, NOT to the class. You must deliver the presentation to instructor in order to earn a non-zero grade.***

#### **DETAILS ABOUT YOUR PRESENTATION**

- ***Always start a presentation with the big picture ... explain the big picture.*** In this case, the big picture is about the device selected and what you are considering using it for.
- ALL material copied from another source MUST be properly cited and all citations MUST be provided with annotations that justify the validity of the source. PLACE CITATION WITH ANNOTATION on the slide where copied material is shown. If you are having trouble “fitting” it, that might be because you are putting too much on a single slide. Keep in mind, citation information can be in small font size.
- Your slides should present only 2-4 key points on each slide and should not be crowded with words.
- When presenting, do not read your slides word for word.
- Use graphics wherever it will assist your audience in understanding the information you are trying to convey.
  - REQUIRED graphics are the block diagram, the wiring diagram, and flow chart or pseudo-code.
  - Consider how to use additional graphics to enhance explanation of your sensor.
  - Provide a graphic (picture, table, graph) for any detail you are talking about.
  - Strive to present results in a table or graph.
- Carefully consider presentation appearance.
  - This includes slide design, appropriate presentation of content on slides (don't put too many words on one slide), grammar, neatness, organization, and appropriate use of time.
- Don't presume too much on the part of your audience; explain technical jargon and spell out acronyms.

#### **PRESENTATION CONTENT:**

- Introduction
  - Introduce device, what it does (especially physical parameter it senses), and what you might use it for.
- Theory
  - Provide brief theoretical explanation of physical property device employs. Make sure to use graphics to help with the explanation. Provide any data from the manufacturer's data sheet that would assist in understanding its theoretical operation. CITE SOURCES DIRECTLY ON THE SLIDE, PROVIDE ANNOTATED BIBLIOGRAPHY JUSTIFYING ***VALIDITY & USE OF EVERY SOURCE*** UNLESS SOURCE IS A PUBLISHED BOOK FROM A REPUTABLE PUBLISHING HOUSE.
    - For example: The LDR is made from semiconductor material. When photons strike the material, conduction band electrons are generated making the device more conductive. (Note, explanation for the presentation requires more than this and would include diagrams and information from the data sheet).

- Design
  - Present and explain the **block diagram** schematic depicting the functional blocks and the signals passed between each block. On the block diagram include data collected on the device that was used to develop the circuit designed to connect to the Arduino.
    - For example, if using an LDR, include resistance in light and dark on the input arrow.
    - If used LDR with voltage divider circuit, include voltage range input to Arduino.
  - Present and explain the **wiring diagram** of the Arduino circuit created with Fritzing or Multisim, explain how the circuit operates to provide the necessary input/output to/from the Arduino.
  - Present **flow chart or pseudo-code** of Arduino sketch (program) created to monitor the device's behavior.
- Results
  - Present table of results showing the information provided by the Arduino sketch as a function of the changing test conditions (be that temperature, force, pressure, humidity, etc.)
- Conclusion and demonstration
  - Demonstrate the working circuit and program run (can do this with a video also)
  - Comment on what worked well and what adjustments would make it work better

**Rubric used to grade your presentation is in Bb & below and is based on the required content listed above.**

Criteria	Did not standard. (0%)	Developing (60%)	Achieving (80%)	Excelling (100%)
Organization (specific introduction and conclusion, sequenced material within the body, and transitions) Weight 30.00%	Organizational pattern is not observable within the presentation.	Organizational pattern is intermittently observable within the presentation.	Organizational pattern is clearly and consistently observable within the presentation.	Organizational pattern is clearly and consistently observable; makes presentation content cohesive.
Language Weight 10.00%	Language choices are unclear and minimally support the effectiveness of the presentation. Language in presentation is not appropriate to audience.	Language choices are mundane and commonplace and partially support the effectiveness of the presentation. Language in presentation is appropriate to audience.	Language choices are thoughtful and generally support the effectiveness of the presentation. Language in presentation is appropriate to audience.	Language choices are imaginative, and compelling, and enhance the effectiveness of the presentation. Language in presentation is appropriate to audience.
Delivery (posture, gesture, eye contact, and vocal expressiveness) Weight 10.00%	Delivery techniques detract from the understandability of the presentation, speaker appears uncomfortable.	Delivery techniques make the presentation understandable, and speaker appears tentative.	Delivery techniques make the presentation interesting, and speaker appears comfortable.	Delivery techniques make presentation compelling, and speaker appears polished and confident.
Supporting Material (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) Weight 30.00%	Insufficient supporting materials make reference to information or analysis that minimally supports the presentation.	Supporting materials make appropriate reference to information or analysis that partially supports the presentation.	Supporting materials make appropriate reference to information or analysis that generally supports the presentation.	A variety of types of supporting materials make appropriate reference to information or analysis that significantly supports the presentation.
Central Message Weight 20.00%	Central message can be deduced, but is not	Central message is basically understandable but is	Central message is clear and consistent	Central message is compelling (precisely stated, memorable,

	explicitly stated in the presentation.	not often repeated and is not memorable.	with the supporting material.	aptly repeated, and strongly supported.)
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## WEEK 7 – LAB NOTEBOOKS

For the project, you are expected to maintain a log of your work and report that work in graded time sheets. Although maintaining a lab notebook is not required for this course, it is still recommended that you record your work in a lab notebook and use it to complete your time sheets. To reiterate the importance of lab notebooks, perform the following activity.

### LAB NOTEBOOK ACTIVITY

*Objective: To develop an understanding of the purpose of a lab notebook. To learn the characteristics of a good lab notebook so that you have a model to emulate.*

**T**o meet objectives stated, you will be looking through lab notebooks in class and investigating resources on the internet. Complete steps described below. **Include all information gathered and provide answers to all questions, hopefully in your own lab notebook.**

### Investigating Lab Notebooks in Class

A collection of lab notebooks is provided for your consideration in class. These notebooks come from a variety of sources including multiple education levels and industry. Take time to look through them. Pick two, identify them **by the author**, and write down your thoughts about what is appealing or unappealing about each of them.

### Investigating on the Web

1. Go to [www.pbs.org/transistor](http://www.pbs.org/transistor). Go to the site map. Under the category “science”, take a look at the lab notebook pages of the scientists who developed the transistor. Find out what you can about these two scientists. Look at the notebook pages and make comments as to what is appealing or unappealing about them. Is there a connection between completeness and legibility and notoriety of the scientist? (Shockley’s name is most widely recognized while Brattain’s is not).
2. Search the internet for web sites that offer information on the value of lab notebooks in education and industry. Write down the links for all valuable websites and what is stated about the value of lab notebooks in education and industry.
3. Search the internet for web sites that offer help in how to keep a good lab notebook. Write down the links for all valuable websites and what these sites state about good lab notebooks.
4. List characteristics of a good lab notebook.

### Questions

Copy these questions in to your own text document then type your answers after each question, save and submit in Lab Notebook Bb dropbox.

1. After looking through the lab notebooks provided in class, comment on, with details, what you found to be appealing and unappealing about them. Discuss at least two of the notebooks including what you found appealing and unappealing about them and WHY. Identify the notebooks critiqued by their author.
2. After perusing the [www.pbs.org/transistor](http://www.pbs.org/transistor) website and looking at the notebook pages provided for two of the three scientists that invented the transistor, comment on, with details, what was appealing and/or unappealing about each of them. Note differences in completeness, details, and legibility.
3. Provide **annotated bibliography** for two websites that offer information on the **value of lab notebooks** in education and industry. (See Technical Report Writing Guidelines for information about creating annotated bibliographic entry).
4. Provide **annotated bibliography** for two websites that offer guidance on **how to keep a good lab notebook**. (See Technical Report Writing Guidelines for information about creating annotated bibliographic entry).
5. List at least 5 characteristics of a good lab notebook.
6. You will be submitting a time sheet each week while working on the major project. State how maintaining a lab notebook would assist you in filling out the time sheet each week.
7. What information are you required to include in your time sheets about troubleshooting during construction and testing? This is information you should make sure to include in your lab notebook so you have it available for the time sheet.

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## WEEK 8 – INFORMATION LITERACY

A “How To” guide on references and citations is provided in the Technical Report Writing Guidelines. This provides a brief but fairly complete outline of all that should be considered when researching information and citing the sources of information found. Although you have been directed to look at and read this content before, let’s go through it again.

.... See Technical Report Writing Guidelines (hard copy provided in class and e-copy in Bb) ....

The library, an excellent resource to use whenever doing research, often provides support and information. The Francis U. and Mary F. Ritz Library (DCC’s library) provided the information copied below.

Additionally, the library provides information literacy software (Credo) that provides a guided online lesson plan with short video tutorials as well as pre- and post-tests to gauge your understanding of the material. **We will start some activities with Credo in class while the remainder of the work is assigned in Bb.** This work is to be completed for a grade as part of the “Professional Preparation” grade.

## Smarter Internet Searching

### When You Aren’t Using Library Databases

- **Better Search Engines For Academic Work**
  - **Google Advanced Search** has more search options than Google
  - **Google Scholar** searches scholarly literature
  - **USA.gov** is your online guide to government information and services, including data, statistics and government reports
- **Evaluating Websites with the CRAAP Test (adapted from Meriam Library, California State University, Chico, California)**
  - Is it Current?
    - When was it published? Are the references current? Is currency important for your topic?

- Is it Relevant?
  - Does the info relate to my topic? What audience is it written for? Is it at an appropriate level for my needs?
- Is it Authoritative?
  - Who is the author/organization? Are they qualified? Is it edited or peer-reviewed? If a website, does the URL tell you anything?
- Is it Accurate?
  - Where does the information come from? Are there references? Are there errors, broken links, etc.?
- What is its Purpose?
  - What's the purpose of the information? Advertising? Scholarly work? Opinion? Is there bias?
- **Who Can You Trust?** *Hint: look at the domain extension!*

<b>.gov</b>	U.S. government	<b>Best bets – unbiased, reliable, trustworthy</b>
<b>.edu</b>	educational institution	
<b>.org</b>	organization (mostly non-profit)	<b>Use with care – maybe biased, maybe great</b>
<b>.com</b>	commercial	
<b>.net</b>	network	<b>Watch out – often selling something</b>
<b>.ca .gb .tv .me</b>	country codes	
<b>.guru .law .eco .secure</b>	new global domain extensions	

- **Avoiding Plagiarism**
  - **When in doubt, cite it out!**
  - You must give credit *whenever* you:
    - Use another person's idea, opinion or theory
    - Quote another person's spoken or written words
    - Paraphrase another person's words
    - Use multimedia created by another person
  - Refer to [sunydutchess.libguides.com/citations](http://sunydutchess.libguides.com/citations)
- **Citation Generators**
  - Use KnightCite for most sources <http://www.calvin.edu/library/knightcite/>
  - Use DocsCite for government documents <http://www.asu.edu/lib/hayden/govdocs/docscite/docscite.htm>
- **Don't Forget About Copyright!**
  - Get permission from the creator or
  - Look for works that are:
    - In the public domain (expired copyright)
    - Royalty free
    - Licensed by Creative Commons or another public copyright
  - Library of Congress ([www.loc.gov](http://www.loc.gov)) is a great source for public domain photographs, maps, music and more
  - [Search.creativecommons.org](http://Search.creativecommons.org) "helps you find content you can share, use and remix"
  - Google Images has search tools that allow you to narrow results by usage rights



- **How to Get Help from a Librarian**
  - **Go to [sunydutchess.libguides.com](http://sunydutchess.libguides.com)**
  - Visit the Reference Desk during library hours
  - Chat with a Librarian via Ask Us 24/7 – anytime, anywhere
  - Book a Librarian – make an appointment for in-depth research help
  - Explore our guide “Getting Started with Research”  
<http://sunydutchess.libguides.com/research>

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## WEEK 11 – THEORY PRESENTATION REQUIREMENTS

Students explain to the class the theoretical background needed to understand their project. This presentation must be made with PowerPoint or an alternative electronic presentation application. Each presentation must be 8 – 10 minutes long. The goal of the presentation is to explain the theory applied to your project that underlies understanding of how the project works. Details on what that means were provided during Week 10.

A detailed outline for this report is NOT supplied. YOU need to apply what you learned in class session on oral communication to develop your own organized presentation that includes the important/key information to describe your project and the working theory behind it. The general outline recommended in Week 10 is:

Introduction – should start with the one-minute speech from last week’s oral communication activity

- a) Gain attention
- b) Establish credibility
- c) Orient audience to topic/thesis
- d) Relate topic to audience
- e) Preview main points

Transition to Body

- a) Main Points and Sub-points with transitions

Transition to Conclusion

- a) Summarize main points
- b) Refer back to introduction
- c) End with finality.

Recognizing the challenge students face in developing a presentation that satisfies the requirement of presenting the theoretical background needed to understand the project, **please refer to the details/tips in the bulleted list below**, some of which are required elements, to deliver an effective presentation for this assignment.

- Start with the “big picture” by stating what your project is, what it theoretically is capable of doing, and why this useful in a larger context.
- After providing the “big picture”, present the block diagram (**required**) and use it to describe the hardware used to accomplish the tasks set for the project.
- Follow the block diagram with a flow chart or pseudo code (**required**) and use it to describe the flow of control needed for the project to accomplish the tasks.
- It is preferable that a wiring diagram (created with Multisim or preferably Fritzing) is included. The wiring diagram is **required** for the poster session.
- ALL citations w/required annotations MUST be included ON THE SLIDE that includes information from the source cited. This helps establish your credibility. All bibliographic

information **MUST** be accompanied by an annotation that states why the source is credible and what the source was used for. The **ONLY** time an annotation is not required is when the material is taken from a published book from a reputable publishing house.

Although this information is useful, ultimately, **YOU** need to develop your own outline that best supports the presentation of the information to your peers. Refer to the support information provided in this document for outlining a presentation and the **Theory Presentation** rubric for full details of how the grade is determined.

### THEORY PRESENTATION – ORAL REPORT RUBRIC

The first five items you are evaluated on in this rubric are ELT program-level student learning outcomes. The last three items you are evaluated on in this rubric are linked to the college’s institutional-level student learning outcome for critical analysis and reasoning as well as information literacy.

<b>THEORY PRESENTATION</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
<p>Explain to their peers the theoretical context of their design.  <i>Context: explanation should be clear and complete enough to inform peers so they learn and understand the theory described. Details need to be provided on hardware and software solutions applied to the project that are key to understanding the design.</i></p>				
<p>Demonstrate awareness of customer needs, quality, and continuous improvement.  <i>Context: presentation should be focused on meeting the needs of the audience. Use of figures, tables, multimedia where applicable is encouraged to assist in peers understanding theory. Presenter should have used feedback from proposal to improve. <b>MUST include a block diagram depicting the system blocks of the project and a flowchart or pseudo code immediately following the introduction.</b> Without a block diagram and flow chart or pseudo code early in the presentation, the highest rating you can earn in this category is 1.</i></p>				
<p>Demonstrate technical communication skills.  <i>Context: presentation should be organized, clear, complete, and presented using electronic media. <b>Must explain the “big picture” as either the first or second slide after the title slide.</b></i></p>				
<p>Research and analyze the value of information on technical topics.  <i>Context: the presentation should demonstrate that the presenter looked up meaningful and useful information from various sources. EVERY presentation requires citations. You will earn the lowest rating in this category if (1) you do not provide an annotated bibliography, using the appropriate APA format, on every slide where material from a reference, including datasheets, is supplied, and/or (2) you did not provide any citation for materials that were clearly copied from another source.</i></p>				
<p>Interpret specification sheets, circuit schematics, and mechanical drawings.  <i>Context: the presentation should include specification sheets, circuit schematics, mechanical drawings, etc., that are effectively used to support the audience’s understanding. It is preferable to include a wiring diagram.</i></p>				
<p>How comprehensively did the student evaluate the problem?  <i>Context: presentation makes it clear that you considered multiple ways the solution to the problem could be approached and explained why the solution presented was selected. This relates to the problem-solving approach that led to the design presented.</i></p>				
<p>How thoughtfully did the student synthesize a solution?  <i>Context: presentation demonstrates the use of data to decide on specific features in the design and the challenges that needed to be solved to get to a working project. This relates to troubleshooting undertaken in system construction.</i></p>				
<p>How effective was the student at using carefully considered evidence?  <i>Context: the annotated bibliography included as the last slide presents the carefully considered evidence. Most problems overcome during system design and construction were overcome due to finding information and that should be apparent from the annotations.</i></p>				

For the last three items, it is expected that you have (1) evaluated input devices, output devices, and programming needs, (2) applied what you learned about inputs, outputs, and programs to a solution, and (3) used and provided credible sources to support your work.

LAST WEEK OF THE COURSE:

### ***Poster Session – one-page handout requirements and rubric***

This document is due by the start of the poster session. If not available at that time, it can be handed in up to 72 hours late. The grade is reduced by 10pts for each passing 24 hours after the deadline. Students can expect that if handout is not available at poster session that it may have a negative impact on their Poster Session – Oral Report grade.

This document (datasheet about your project) must include content detailed below presented in an organized and clear fashion. To fit everything on one page (double-sided), you will need to be creative and use a variety of tools. **You should use the “narrow margins” option in “Layout” menu.** You need to think about how to insert graphs and pictures effectively so they are not too small to read yet take up limited space. Suggestions are provided in the details below. **A sample handout is provided in Bb (Course Support Material folder) as a good, although imperfect, model.**

- Title
  - Name of Project
  - Project developer’s name(s) and professional, non-DCC email address(es)
- General Description
  - Provide clear statement of the project and its application(s)
  - List specific features/capabilities, provide data on inputs and outputs
  - State total approximate/actual cost
    - Include major parts list
    - Include detail of the sensor(s) and actuator(s)
- Block Diagram, Wiring Diagram, and Flow Chart/Pseudo Code
  - **Final Block Diagram** – provide the final block diagram depicting all key system blocks and detail of the signals passing between blocks including:
    - A block for the sensor, processor, actuator, and signal processing
    - Clear description of signal between each block (analog voltage levels, number of digital bits, frequency...), including the range of input to be measured by the sensor (such as temperature range or pressure range...)
      - *Suggestion: look at information on creating a block diagram*
  - **Final Wiring Diagram** – provide complete wiring diagrams, including symbols, with pin numbers, so that someone else could build it using only your diagrams (should use Fritzing software)
    - *Suggestion: When connecting wires in Fritzing, use different color wires for different connections and use only horizontal & vertical lines (no diagonal lines). Also, since all parts might not be available in Fritzing, clip the diagram without the grid from Fritzing (use snipping tool in Microsoft Accessories) into Paint and add other components there. Can also copy from Multisim to Paint. DO NOT DO SCREENSHOTS and DO NOT COPY WITH GRID.*
  - **Flow Chart / Pseudo Code** – provides the logical flow of operation for the system design used to explain system operation. Make sure to include:
    - A citation of the source of the code (if you copied and modified it)
    - Enough description so that the action of each code block can be understood
    - A description of each variable and constants included in the flow chart
    - *Suggestion: refer to information provided about what the content should be if this isn’t enough to guide you*
- Project Photograph or Technical Drawing of Physical Set-up

- Provide a **LABELLED** picture or pictures of the physical set-up. The labelling must assist the reader in understanding what is shown in the photograph. *Suggestion: paste picture into Paint for labelling.*
- Recommendations for Future Work
  - Summarize issues that arose during project development
  - List recommendation for future work that could be performed on this project
- References
  - Include references from theory presentation using proper bibliographic format. **ALL references must be accompanied by an annotation EXCEPT references that are published books from a reputable publishing house.**

WRITTEN MATERIAL FOR POSTER SESSION RUBRIC – ONE PAGE HANDOUT

<b>Written Material for Poster Session</b>	4	3	2	1
<b>General Description</b> – Project Statement				
<b>General Description</b> – Features/Capabilities				
<b>General Description</b> – Cost				
<b>Block Diagram</b>				
<b>Flowchart or pseudocode AND printable text file of program code</b> - Lowest rating earned if text document with well formatted and commented program code is not provided.				
<b>Wiring Diagram</b>				
<b>Project Photograph or Technical Drawing</b>				
<b>Recommendations for Future Work</b>				
<b>Annotated bibliography</b>				

### Appendix C: Accounting of Students Assessed by Course and Program

Major	Total Students	# students assessed	# assessments conducted	courses with # assessments
ACC	46	2	2	ENG 101 (2)
ACR	10	1	1	ENG 101 (1)
AMT	17			
APC	15			
ARC	40	2	2	BHS 103 (2)
AVI	37	3	3	BHS 103 (1), ENG 101 (2)
AVM	19			
BAT	444	8	8	BHS 103 (5), ENG 101 (3)
BOK	4			
BUS	189	2	2	BHS 103 (1), ENG 101 (1)
CDC	7			
CHC	5			
CIS	100	2	2	BHS 103 (2)
CMH	22	2	2	BHS 245 (2)
CNC	9			
CNS	27	1	1	ENG 101 (1)
COM	129	8	8	BHS 103 (7), ENG 101 (1)
CPS	159	10	10	BHS 103 (1), ENG 101 (9)
CRJ	73	8	8	CRJ 253 (8)
CRT	188	31	31	BHS 103 (1), CRJ 253 (3), CRJ 266 (25), ENG 101 (2)
ECC	1			
ECH	41	5	5	ECH 254 (5)
EDB	9		0	0

EDH	51	3	3	BHS 103 (1), ENG 101 (2)
EDL	33	1	1	HIS 104 (1)
EDM	12		0	0
EDP	1			
EDS	5	1	2	BHS 207 (1), ENG 101 (1)
EDX	2			
EED	147	26	27	BHS 103 (1), BHS 207 (3), ECH 254 (18), ENG 101 (4), HIS 104 (1)
ELT	46	14	14	BHS 103 (1), ELT 250 (13)
ENR	110	6	6	BHS 103 (2), ENG 101 (4)
ESW	101	24	25	BHS 103 (1), ENG 101 (1), ESW 100 (22), HIS 104 (1)
FPT	2			
GSP	1,345	31	32	AHS 100 (1), BHS 103 (13), CRJ 253 (3), ENG 101 (10), ESW 100 (2), HIS 104 (2), PFA 100 (1)
HMS	319	53	53	BHS 103 (2), BHS 245 (46), ENG 101 (2), HIS 104 (3)
HNT	12			
INM	3			
LAH	356	10	10	BHS 103 (2), BHS 207 (1), ENG 101 (4), HIS 104 (2), SCI 100 (1)
LAM	8			
LAX	239	21	22	BHS 103 (1), ENG 101 (4), ESW 100 (1), SCI 100 (16)
MLT	53	8	8	AHS 100 (7), ENG 101 (1)
MPC	1			
NUR	112	42	63	NUR 215 (22), NUR 218 (41)
PAL	38	6	6	CRJ 266 (1), PAL 120 (5)
PAR	33	2	2	PAR 102 (2)
PBH	19	1	1	ENG 101 (1)

PDC	41	9	9	AHS 100 (9)
PFA	48	12	12	PFA 100 (12)
PLL	3	1	1	PAL 120 (1)
PRR	5	2	2	PAR 102 (2)
UND	435	10	10	AHS 100 (1), ENG 101 (6), ESW 100 (3)
VAT	166	3	3	BHS 103 (3)
WAC	2			

## Appendix D: Faculty Narratives

Course	Narrative
AHS100	<p>Only 10 out of 14 students completed both of the required assignments. One had personal difficulties as well as not being a native speaker, and therefore demonstrated minimal competency. Of the other nine, six demonstrated moderate competency and three demonstrated modest competency.</p> <p>Assessment Method: All students enrolled in the course were required to complete an assignment in which they located resources both in the library and online, then evaluating the credibility of those resources. As a final project, all students were required to develop and present a powerpoint presentation about a topic of their choice related to healthcare, with proper references. As part of this project, the students also evaluated each other's presentations. This final project was completed with multiple draft submissions in the last five weeks of the course.</p>
	<p>All of the eight students who attended the course past mid-term submitted the final assignment for assessment. Five of the students' submissions were scored a grade of two or above in all categories, while one student scored a one for their citations. One of the students explained that they had not spent adequate time on the assignment and had not demonstrated skills in a couple of categories adequately. One student, who also struggles with the English language found the assignment challenging even after receiving help from instructor and librarian. (01/21/2022)</p> <p>Assessment Method: ISLO assessment was performed on the students' final presentation assignment. This was the third encounter with information literacy during the course. For this assignment, the students were required to research a topic and present it in a written and PowerPoint presentation formats. The students were given an approved list of topics to choose from for their assignment. They may also choose a relevant topic which was not on the approved list and submit their proposal for approval. The student's written submission and PowerPoint were both used for the assessment.</p> <p>The students were initially introduced to the concepts of information literacy with the class visiting the library and participating in a workshop delivered by a librarian. During another class period the students practiced researching for the information and citation writing.</p>
ESW100	<p>The students had to complete and present a presentation on their career choice. They had to research using the library tools presented in a visit to the library earlier in the semester. The project was presented to the class via powerpoint and had to include links to various schools or job postings as requested. They were successfully able to utilize library resources, google, and various credible websites as listed in their citation page.</p> <p>Action/Modification: No action needed. The library does a phenomenal job in their presentation each year and students are well versed in computer skills.</p>
PAR102	<p>Narrative summary of results. After two to three weeks, most students began to show improvement in their ability to identify key concepts, access relevant information from credible sources, communicate, organize, and synthesize information with greater clarity and depth, and increasingly follow APA citation style guidelines. One student did not, although the student did show an understanding / comprehension of the material and the need for identifying several perspectives on the same subject. Half-way through the semester, most students showed a marked improvement from the beginning of the semester. Term papers generally reflected the same outcomes of latter news articles and the overall work of students towards the latter half of the semester.</p>



	<p>Summary of conclusions drawn. Society is provided with information that conforms to anyone's particular perspective and it is up to individuals to seek out and understand alternate perspectives. Sometimes they do, sometimes they do not. We must encourage students to seek alternative perspectives and give them the tools to do so, not only in research but in every facet of information gathering. This is not as intuitive as it seems, as individuals are offered tailored information in just about every facet of their existence. To seek and understand other perspectives generally does not seem to be current social practice. Yet, it is paramount to the development of the individual, and society.</p> <p>Assessment Method: Following the above criteria, students submitted weekly news article summaries of current pathophysiology events from news sources with different perspectives of the same event, comparing and contrasting the information, finding additional information if necessary, and identifying gaps in information. Additionally, students completed a term paper on a pathophysiological condition of their choice following APA citation style formatting, eight pages in length, using no less than 10 sources of which half must be from peer reviewed sources no less than 10 years old. From these ongoing assessments, I provided feedback and guidance to assist in their writing, communication, and adherence to currently accepted guidelines, encouraged the use of the DCC library and writing lab services, provided material examples, and promoted alignment to the criteria.</p> <p>Action/Modification: Include examples of how to select key concepts, search for credible sources and information, communicate findings, and follow APA style in each class as opposed to a few times throughout the semester.</p>
SCI100	<p>All students who participated in the ISLO 5-related activities could identify the need for information and locate electronic media. Most students who participated in the ISLO 5-related activities could evaluate the credibility of information and use information effectively. Most students used the available citation generators through the Ritz Library to cite works appropriately. More practice/direction in citing web resources is needed.</p> <p>Assessment Method: All the SCI 100 sections used a short "survey" for students to share with us what sources they were using to research for an oral presentation. They and I reflected on how appropriate the resources were for the assignment. Students turned in a works cited page with their oral presentation expanded outline.</p>
	<p>These students were in a Science Seminar course for first semester science students. For most, this was their first introduction to using database or advanced internet searching to locate a topic of interest. In addition, almost all students were new to the objective of sharing the information that they located by paraphrasing and summarizing that information in their own words.</p> <p>Assessment Method: Assessment was done via two assignments. The first was a worksheet that students completed as they did their research to locate three primary research articles on a topic of their choice in the field of science. This worksheet addressed the first three rubric categories. The second assignment was for students to do an oral presentation with a power point on one of these primary research articles. In this presentation, students shared the content of the research article in their own words for each major section of the article (Intro, Methods &amp; Materials, Results, etc.). The presentation was used to assess the last two rubric categories.</p> <p>Action/Modification: In the future, to improve students' performance on the last two rubric categories, I would have students practice summarizing scientific research findings in their own</p>

	<p>words. Students used a lot of language directly from the source material (although correctly cited), so they seem to need more experience with paraphrasing and synthesizing the source information they are using.</p>
<p>PAL120</p>	<p>PAL 120 Legal Research is a course focused on the specific skill sets required for legal research. Although hard copy resources are briefly introduced and finding and using reliable/credible open internet sources for legal materials is discussed in one module/chapter, the main focus of the course is on beginning to develop legal research and writing skills and introducing the students to Westlaw. Westlaw is a subscription-based legal research database that requires its own specific skill sets to navigate.</p> <p>These are brand new skills for most students, particularly since most students coming out of high school typically do not have strong research skills in general. There is a lot to learn in this course and, consequently, there is not much time to focus on some of the more general skills that this ISLO focuses on.</p> <p>Students gain some practice in finding legal resources on Westlaw through in-class work and written assignments. However, the sources for the assessment used for this analysis - the final draft of their predictive memos - are provided to the students in the form of a statute and two court opinions. The resources are provided so that the students can focus on the skills of legal analysis and application as well as attempting to employ proper legal citation. This makes sense within the pedagogy of the course, but this makes applying the rubric for this ISLO slightly problematic. Evaluation of rubric categories #2 and #3 had to be accomplished by reviewing the overall performance of individual students on various assignments throughout the semester rather than the predictive memo assessment itself.</p> <p>My findings upon completing this assessment are that this course probably is not the best fit for assessment under this ISLO. I have been revising and fine-tuning this course since I began teaching it years ago and I do not feel that it is wise to make changes to this developed curriculum in order to "make it fit" as an assessment course for ISLO 5. A better fit might be a course that has more focus on general information literacy and technological competency rather than the specialized skills required for proficiency in legal research.</p> <p>Assessment Method: As stated above, the final draft of the predictive memo was used for this assessment. A predictive memo is an internal (interoffice) legal document that objectively examines the strengths and weaknesses of a client's case (based on the application of existing law/precedent) for the purpose of informing strategy decisions. The students work on this memo in parts during the last half/third of the semester, working from an outline and completing individual components of the memo (and then ultimately a full rough draft) for review and comment before the final draft is submitted at the end of the semester. Class time during this portion of the semester is focused on discussing the individual components and working through how to approach and write each section of the memos.</p> <p>Action/Modification: While teaching the class in 2022-23, re-review assignments and class content to determine whether the class is appropriate for ISLO 5 assessment.</p>
<p>BHS103</p>	<p>This is a complicated assessment to do with an introductory seminar, which BHS 103 is. ISLO 5 assesses the more detailed sides of doing academic work, whereas an introductory seminar is more about focusing on wide area of topics within a particular subject area. Therefore, ISLO 5 does not</p>

	<p>lend itself to developing a single assessment instrument to do the assessment on a particular day towards the end of the semester. Therefore, each instructor carrying this out selected assignment questions from different assignments given throughout the semester. The challenge here is that this places a greater requirement on consistency in student performance, focus, attention, effort, attendance, etc. These are qualities that have been particularly hard to come by since our return to campus from the pandemic. Student alienation is a well-documented phenomenon at this point. I think this explains why there are so many missing scores for the learning categories. The detailed focus and complexity of ISLO 5 are also reasons why we did not ask part-time faculty to be involved. Further, I think some of the explanations of the learning categories and levels of competency are vague, which makes it harder to assess and to assess with precision and consistency across faculty.</p>
BHS207	<p>Students performed very well on this measurement.</p> <p>Assessment Method: Students were tasked with creating a sample lesson plan with visual aids, in class activities, and clearly defined learning objectives. Students utilized the internet to gather their required information (after a class period was dedicated to source evaluation/credibility/triangulation techniques). All students were able to understand what information they needed, locate the information and utilize presentation technology (PowerPoint or google slides), and use the information properly to meet their specific learning outcome assessment. Where there is room for improvement is evaluating the credibility of sources. Students were able to accomplish this in class with guidance but needed feedback/chances to replace sources. I would expect that this speaks to a larger need for a serious information literacy focus college wide, however once given the ability to edit with feedback 100% of students were able to provide credible sourcing for their lesson plans.</p>
BHS245	<p>The results of this assessment in BHS 245 indicate a significant improvement of the skills related to ISLO #5 from my last assessment. Across the board, students in both sections had clearly been exposed to these learning outcomes before their capstone course in HMS. While there are a handful of students that could use significant skill building with APA format and citations, I find that the majority of students are assessed at 3 and 4 in most categories for ISLO #5. This again shows a significant improvement in terms of both exposure to and the practice of ISLO#5 in BHS 245.</p> <p>Assessment Method: Students were assessed through a series of written assignments that incorporated and required both the understanding and application of each component of ISLO #5. These assignments were "Applying the Microskills Hierarchy Paper", "Antwone Fisher Film Reaction Paper", "Portfolio Project", and "The Capstone Course and Program Reflection Paper".</p>
CRJ253	<p>The assessment shows the various strengths and weaknesses overall in relation to the ISLO. The results emphasize and confirm the importance of having clear directions in the learning assessment instructions as well as instructor comments for improvements.</p> <p>Assessment Method: The assessment method is based on class discussion forums for on-line discussions. The instructions are provided at the beginning of the course and allows students the opportunity to submit their postings by the same days of the week on a consistent basis.</p>
CRJ266	<p>Overall, the students performed at or above the expectations of the faculty.</p>

	<p>Assessment Method: Students were randomly assigned to groups and engaged in a semester-long group research project. These groups made their final presentations to a panel of professional from the field. The students were grading according to a rubric provided by the faculty.</p>
	<p>The students adequately addressed a contemporary criminal justice topic in a group project and presentation that was researched during the semester and included interviews relative to the topic. The presentations occurred late in the semester before a panel of practitioners who evaluated the students on their research and relevancy to the topic.</p>
ECH254	<p>Students are able to identify the need for information fairly well. They need improvement in the area of how to cite sources of information.</p> <p>Assessment Method: A rubric was used to assess the assignment.</p> <p>Action/Modification: I will include a mandatory APA citations workshop for students to complete at the beginning of the semester. The workshop will be conducted by the college library staff.</p> <p>Resource Needed 1: I need to schedule a library workshop on APA citations which is already available.</p>
ENG101	<p>Students have definitely improved in the ability to locate and evaluate credible sources online. The biggest issues are with the last two parts of the rubric - the effective use and citation of those sources. For many students, fluid attribution and incorporation of a source into their writing continues to be a problem. For example, some students would refer to "the database where this source is found" or use phrases like "according to the article" rather than stating the author and their credentials or naming the article at all as a lead in to quoted material. Students are overall sufficient in citing when a single author is listed, but struggle when it is multiple authors or no author at all. A secondary issue here is that even when a citation guide is provided, some students simply will not check it to find the correct format.</p>
	<p>Students were reasonably able to follow instructions on the final exam; students were able to compose an argument thesis for the exam by comprehending information from the main topic of several essays from the text. Reasons given to support their thesis ranged in the area of moderate to modest. Quoting from an essay source was fairly successful; conclusion paragraphs restated thesis and reasons.</p>
	<p>The students who attended the library session appear to have some stronger sense on how to use the library databases. However, students still rely heavily on Google, one even noting during that library session that he prefers it because it is easier and more intuitive. My requirement of an annotated bibliography and a section called Review of Literature in their research papers helps me to see how well they are evaluating their sources. They still struggle mightily with citations, though. I reinforce MLA citations throughout the semester, but many seem to not grasp it. Perhaps more stringent grading on that component would help, though I do think the reinforcement of the citation development throughout the course has helped over the years.</p> <p>Breaking the research project up into parts (proposal, annotated bibliography, rough and final drafts) means I get multiple opportunities to provide them feedback. Some students use that well, making revisions along the way to improve their research, fix citations errors, and incorporate their sources more fluently. Others don't, but I don't think that's a matter of pedagogy. The College still needs to</p>

	find effective ways to support students outside the classroom to help with engagement, college expectations, etc.
	<p>This semester I used the research paper as a way to encourage students to reflect on Strategies to Stay Safe and Healthy during the Pandemic. It is the first time that I assigned a common topic for all of the students in the class. I created teams of Accountability Partners, so that makes it easy for students to communicate with one another and provide support and encouragement to one another. This semester I asked students to use only sources from the Library Database. I find that students always go directly to Google, so teaching them how to use the Library Databases was very useful. In addition to the Research Paper itself, I gave them 100 points for submitting their sources on Blackboard, and this worked very well because it allowed the other students to see some of the best sources that their colleagues have found. Although students demonstrated that they know how to incorporate quotations correctly for the most part, they need to learn how to be consistent. One aspect that I noticed this semester is that the college needs to develop a better system of communicating with and encouraging students who live in the dorms. There are students who live in the dorms but do not attend any classes. When they try to return to the class after Thanksgiving, they discover that they cannot submit all the work for the semester in one week. The Research Paper cannot be “made up” and written in one sitting. DCC needs to work on implementing a system of early intervention and of communicating with students who live in the dorms but do not attend classes and do not attempt to do any written assignments before Week 14 of classes.</p>
ENG226	<p>I'm not entirely sure my class assignments fit this rubric because of the outdated nature of some categories. The "evaluate the credibility of information published on the internet" seems to be an especially narrow way to critically analyze the way around us. I left that category blank. My assignment was very broadly asking students to analyze the way the Internet has altered the power structure of popular culture. Credibility of sources is not a relevant issue.</p>
HIS104	<p>I found that generally students did well in finding and using reliable sources. These results have generally improved over the years. There was room for improvement, however, in how thoroughly they explained why their sources were reliable.</p> <p>Assessment Method: In the first week of the semester, students in History 104, U.S. History, 1865- the present, are assigned to read several articles and resources that provide guidance for finding reliable information online. In the first week's discussion forum, they are asked to use those guidelines to find one reliable online source about an issue they are interested in, and post it in the discussion forum, along with an explanation of why they found it to be reliable.</p> <p>I provide feedback about their sources and explanations individually and I post a reply to the class about which sources were reliable or problematic and why.</p> <p>Then in Module 7, which takes place over weeks 11 and 12 of the course, they are asked again to find a post on a historical topic from the period covered in that module, 1960-1989.</p> <p>I again provide feedback individually to students about their sources.</p> <p>Finally, in Module 8, which is the last two-week class module of the semester, and covers the period 1989 to the present, they were asked to include two reliable internet sources as part of their posts on Discussion Questions that they are answering.</p>
COM120	<p>In a small class of only 6 students, all six students gathered information from primary sources to gain factual material for two journalism assignments.</p>

	<p>Assessment Method: To complete two Journalism assignments, students needed to contact an authority on an issue or event and conduct an interview to gather factual material for a newspaper article and a television news report. 6 out of 6 students succeeded in completing both assignments. After further analysis, although these assignments require students to identify the need for information and evaluate the credibility of sources. They are not specifically using electronic media, unless one counts email and contacting sources directly via email.</p>
<p>PFA100</p>	<p>Students who successfully complete PFA100 typically demonstrate above average technical competency, as the course requires them to discover relevant content online, assess that content, and then create their own content base on the performing artists that they aspire to become.</p> <p>Assessment Method: In addition to learning about college resources, students in PFA100 practice searching for jobs in the field, assess requirements and qualifications for those jobs, they source and assess artist resumes, headshots, and websites, and then create their own. They also research various transfer programs, and report on the requirements, acceptance rates, and costs of each.</p>
<p>ELT250</p>	<p>Results indicated that the score on the post-test for the CREDO modules correlated well with the demonstrated abilities of the students. I also observed that students who took the assignment requirements seriously, which included providing annotated bibliographies for their submitted work, were able to demonstrate their ability level. It is not clear that those who did not provide those annotations if they did understand the information literacy concepts or not. However, it is noteworthy that those who did not fill out the annotations performed poorly on the CREDO post test. Note -- there was some difficulty being assured of the ratings for teams but since each individual had to submit time sheets for their work where they detailed their work and sources, I could extrapolate.</p> <p>Assessment Method: Multiple instruments were used including: CREDO modules (post test score), evaluation of theory presentation for major project, evaluation of 1-page handout created for final project poster session, scoring given by external evaluators on final project poster session, considering of project time sheets submitted by individuals.</p>

## Appendix E: Library Student Survey and Results

### Survey:

1. How confident are you in your ability to locate, evaluate, and use information effectively?
2. What are the components of information literacy? Select all that apply.
3. Which of these statements about plagiarism are true? Select all that apply.
4. Explain your process for evaluating information, including how you decide whether a source is reliable.

Total # of Responses: 105

### Results:

#### Question 1

Answer	# of Responses
Extremely confident	15
Very confident	42
Somewhat confident	43
A little bit confident	2
Not confident at all	2

#### Question 2

Answer	# of Responses
Identify and locate information	17
Evaluate and effectively use information	15
Accurately cite sources and acknowledge where information came from	14
All of the above	99

#### Question 3

Answer	# of Responses
Plagiarism is using someone else's...	93

Plagiarism is okay if you didn't...	6
Plagiarism can be avoided by...	91
None of these statements are true	2

#### Question 4

Answers varied, but a review of those responses revealed three main themes:

- a recognition of the need to find multiple sources in order to corroborate the validity of the information;
- an effort to ascertain the credentials of the source, be it the author or the publication (including websites); and,
- an awareness of the appropriateness and credibility of the search tools themselves (i.e., using the college library's databases, limiting internet searching to only reliable websites, and, as many students noted, avoiding sites such as Wikipedia).



## Appendix F: Survey of Faculty re: Citation Instruction

Total Number of Responses: 54

*Question 1: Are you a full-time or part-time faculty member?*

Value	Percent	Responses (n=53)
Full-time Faculty	56.6	30
Part-time Faculty	43.4	23

*Question 2: Since the 2018-2019 academic year, do you believe you have focused more specifically on students' abilities to construct accurate citations in your assignments, either through direct instruction, suggestions to attend workshops held by the library and/or Writing Center, your grading practices, or other approaches?*

Value	Percent	Responses (n=54)
Yes	57.4	31
Somewhat	18.5	10
No	24.1	13

*Question 3: Which of the following approaches did you use? (Check all that apply)*

Value	Percent	Responses (n=41)
Direct Instruction	78.0	32
Asking Students to Attend Workshops	43.9	18
Specific Attention to Citations in Grading Practices	75.6	31
Other	29.3	12

“Other” Responses:

- 1. Students read an essay from the textbook about how to avoid plagiarism. 2. Students write an essay of their own about strategies to avoid plagiarism. 3. Sometimes I ask students to sign a "contract" that they will not plagiarize in this class. 4. Students do brief presentations in class about the proper way to quote and cite sources.
- Calling attention to research to support theory, emphasizing Festinger's social psych mantra: "No action without research, no research without action."
- Go to Library for Citations workshop as a class
- Graded assignments that required citations.
- Handout
- Modeling proper citation from the first week of instruction
- Providing MLA guide link in Bb
- Purdue Owl site
- Requiring students to go to the Writing Center before submitting an assignment.
- Strongly suggest visits to Writing Center, suggest using free versions of bibliography software
- online resource guides
- using apps that assist with apa format