Introduction to Computer Forensics Assessment Report Fall 2017

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1 INTRODUCTION

Florida SouthWestern State College's Business Department gathers a multitude of data from various courses as assessment tools in support of the Florida Department of Education Curriculum Framework. These courses included in assessment are CGS 2135 *Introduction to Computer Forensics*. The assessment outcomes are intended to provide a baseline and measurement of achievement moving forward as well as investigate the strength and performance of items in the exam. The assessment plan also provides comparisons between dual Enrollment and non-dual enrollment students, online versus traditional students, and by site, where possible. Where data is sufficient, additional analyses are provided including distribution studies and longitudinal studies.

For additional detail or further analysis not provided in this report, please contact Dr. Joseph F. van Gaalen, Director of Assessment & Effectiveness, Academic Affairs (jfvangaalen@fsw.edu; x16965).

2 CGS 2135

2.1 LEARNING OUTCOMES, OBJECTIVES, AND DESCRIPTIVE STATISTICS

The FSW Business faculty defined five areas of interest for evaluation in support of the state framework which was clarified for the fall 2017 term. The outcomes related to CGS 2135 are:

- Describe computer forensics and computer evidence.
- Explain basic forensic methodology.
- Demonstrate how to acquire electronic evidence.
- Demonstrate how to analyze electronic data.
- Demonstrate how to recover deleted data.
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During the fall 2017 semester, an enrollment of 4 contributed to scores tallied from 1 of 1 sections of CGS 2135. Descriptive statistics for achievement of outcomes are shown in Table 1. Note that the "% Meets Expectations" is the percentage of students whose average learning mastery score is equal to '3' or higher since the count (n) refers to the number of averages of learning masteries (i.e., # of students), not the number of assessments. The graphical representation of the percentage meeting expectations is shown in Figure 1. The highest "% Meets Expectations" include two LOs at 100%. The lowest "% Meets Expectations" include one LOs at 33%.

Outcomes	n	Mean	% Meets Expectations
Describe computer forensics and computer evidence	3	3.5	100%
Explain basic forensic methodology	3	3.9	100%
Demonstrate how to acquire electronic evidence	3	3.4	67%
Demonstrate how to analyze electronic data	3	3.7	67%
Demonstrate how to recover deleted data	3	3.3	33%

Table 1. Student achievement level by Outcome for CGS 2135.

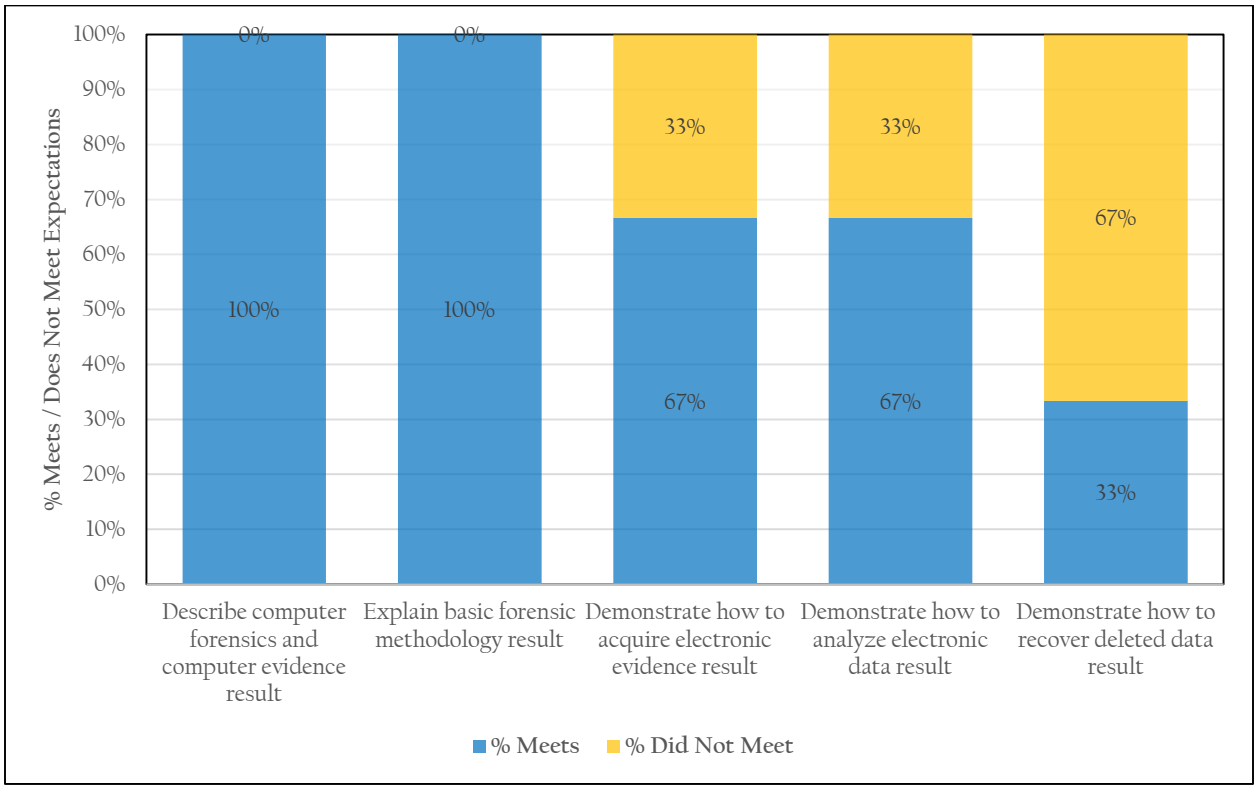

Figure 1. Bar graph of percentage of students (average learning mastery scores) meeting expectations of 3 or higher.

2.2 Exploratory Analysis and Significance Testing

Multiple comparisons of artifact scores across varying formats, campuses, and student types were made, where possible, in order to add depth to the causes of the distribution of the artifacts. Each course was divided into the appropriate subgroups to perform the analysis. In cases where a subgroup is not represented in the course comparisons were not conducted and are noted for comprehensiveness.

2.2.1 Dual Enrollment to Non-Dual Enrollment Comparison

No dual enrollment sections of the course were run during fall 2017 so no comparison study between dual enrollment and non-dual enrollment could be completed.

2.2.2 Online to Traditional Comparison

Only one section of the course was offered during the fall 2017 semester, so no online to traditional comparison could be completed.

2.2.3 Comparison by Campus/Site

Only one section of the course was offered during the fall 2017 semester, so no cross-campus comparison could be completed.

2.3 LONGITUDINAL STUDY

As further data is collected in coming terms, this section will track achievement through time and highlight strengths, weaknesses and any long term trends.

3 CONCLUSIONS

FSW's Business Department gathers a multitude of data from various courses as assessment tools in support of the Florida Department of Education Curriculum Framework. The courses included in assessment are CGS 2135 *Introduction to Computer Forensics*. The assessment outcomes are intended to provide a baseline and measurement of achievement moving forward.

3.1 CGS 2135

A drill-down of CGS 2135 results are as follows:

1. In a study of outcome achievement, "Describe computer forensics and computer evidence." the average "% Meets Expectations" across 3 students from one course sections is 100%. Note that the "% Meets Expectations" is the percentage of students whose average learning mastery score is equal to '3' or higher since the count (n) refers to the number of averages of learning masteries (i.e., # of students), not the number of assessments.
2. In a study of outcome achievement, "Explain basic forensic methodology." the average "% Meets Expectations" across 3 students from one course sections is 100%.
3. In a study of outcome achievement, "Demonstrate how to acquire electronic evidence." the average "% Meets Expectations" across 3 students from one course sections is 67%.
4. In a study of outcome achievement, "Demonstrate how to analyze electronic data." the average "% Meets Expectations" across 3 students from one course sections is 67%.
5. In a study of outcome achievement, "Demonstrate how to recover deleted data." the average "% Meets Expectations" across 3 students from one course sections is 33%.
6. No online to traditional comparison could be completed because only one section of the course was offered in fall 2017.
7. No cross-campus comparison could be completed because only one section of the course was offered in fall 2017.