**General Education Assessment: Critical Thinking Results 2023-24**

# What do we mean by Critical Thinking?

Virginia Western describes Critical Thinking as the ability to use information, ideas, and arguments from relevant perspectives to make sense of complex issues and solve problems.

A person who thinks critically possesses the skills and knowledge necessary to locate, evaluate, interpret, and combine information to reach well-reasoned conclusions or solutions. A person who thinks critically can:

* Identify and summarize issues
* Identify and question the validity of key assumptions
* Evaluate the quality of evidence
* Present logical conclusions

# How do we assess Critical Thinking?

Critical Thinking was assessed by 1 direct method of assessment and 2 indirect methods of assessment.

## Direct Assessment Method

Critical Thinking was assessed by faculty using a [rubric](#Rubric) on selected artifacts; this rubric can be found in Appendix A. The threshold of acceptability was that 75% of students would earn an average rating of 2.00. The target was that students would have an average score of 3.00 or above.

### Population for Direct Assessment Method

1,418 artifacts were assessed for 1,072 unique students for the Critical Thinking General Education Assessment. This represents 23.3% of the target population, program placed students (n=4,600). The table below provides the respondent population’s gender, race/ethnicity, age range, degree type, and course modality.

Table 1 Respondent Population Demographics

|  |  |  |
| --- | --- | --- |
| **Category** | **n** | **Percentage** |
| **Gender** |  |  |
| Female | 660 | 61.57% |
| Male | 392 | 36.57% |
| Not specified | 20 | 1.87% |
| **Race/ Ethnicity** |  |  |
| American Indian | \* | 0.19% |
| Asian | 55 | 5.13% |
| Black | 121 | 11.29% |
| Hawaiian/Pacific Islander | \* | 0.09% |
| Hispanic | 82 | 7.65% |
| Not Specified | 28 | 2.61% |
| Two or More | 53 | 4.94% |
| White | 730 | 68.10% |
| **Age Range** |  |  |
| 19 or younger | 492 | 45.90% |
| 20-24 | 305 | 28.45% |
| 25 or older | 275 | 25.65% |
| **Degree Type** |  |  |
| AA | 25 | 2.33% |
| AAS | 213 | 19.87% |
| AS | 605 | 56.44% |
| CERT | \* | 0.37% |
| CSC | 225 | 20.99% |
| **Modality\*\*** |  |  |
| Face-to-Face | 713 | 50.28% |
| Hybrid | 191 | 13.47% |
| Online Asynchronous | 507 | 35.75% |
| Online Synchronous | 7 | 0.49% |
| *Notes: \* n is less than 5; \*\* students in multiple modalities*  |

## Indirect Assessment Method 1

To assess critical thinking for graduates, a [graduation survey](#Grad) was conducted which asked graduates to rate their satisfaction with the critical thinking education they received while at Virginia Western on a scale from 1 (“Very Dissatisfied) to 4 (“Very Satisfied”); this survey question can be found in Appendix B. The threshold of acceptability was that 85% of respondents would rate their satisfaction with their critical thinking education as a 3.00 or better. The target for this measure was that graduates would have an average critical thinking satisfaction score of 3.00 or better.

### Population for Indirect Assessment Method 1

The sample population was 680 with 211 graduates responding. This is a response rate of 31.0%.

Table 2 Respondent Population Demographics

|  |  |  |
| --- | --- | --- |
| **Category** | **n** | **Percentage** |
| **Gender** |  |  |
| Female | 160 | 75.83% |
| Male | 49 | 23.22% |
| Not specified | \* | 0.95% |
| **Race/ Ethnicity** |  |  |
| Asian | 6 | 2.84% |
| Black | 30 | 14.22% |
| Hawaiian/Pacific Islander | \* | 0.47% |
| Hispanic | 13 | 6.16% |
| Not Specified | 5 | 2.37% |
| Two or More | 9 | 4.27% |
| White | 147 | 69.67% |
| **Age Range** |  |  |
| 19 or younger | 32 | 15.17% |
| 20-24 | 100 | 47.39% |
| 25 or older | 79 | 37.44% |
| **Degree Type** |  |  |
| AA | 7 | 3.32% |
| AAS | 112 | 53.08% |
| AS | 61 | 28.91% |
| CERT | \* | 0.95% |
| CSC | 29 | 13.74% |

*Notes: \* n is less than 5*

## Indirect Assessment Method 2

To assess critical thinking with the alumni population, Virginia Western conducted an [alumni survey](#Alumni) which asked alumni to rate their satisfaction with the critical thinking education they received while at Virginia Western on a scale from 1 (“Very Dissatisfied”) to 5 (“Very Satisfied”); this survey question can be found in Appendix B. The threshold of acceptability was that 85% of respondents would rate their satisfaction with their critical thinking education as a 3.00 or better. The target for this measure was that alumni would have an average critical thinking satisfaction score of 4.00 or better.

### Population for Indirect Assessment Method 2

The 2,442 individuals who either graduated during the 2020-2021 academic year or who attended during the 2020-2021 academic year and did not return for the 2021-2022 academic year were sent the survey. 133 individuals (5.4%) responded to the survey.

Table 3 Respondent Population Demographics

|  |  |  |
| --- | --- | --- |
| **Category** | **n** | **Percentage** |
| **Gender** |  |  |
| Female | 83 | 62.41% |
| Male | 48 | 36.09% |
| Not specified | \* | 1.50% |
| **Race/ Ethnicity** |  |  |
| Asian | \* | 3.01% |
| Black | 15 | 11.28% |
| Hispanic | 8 | 6.02% |
| Not Specified | \* | 2.26% |
| Two or More | \* | 1.50% |
| White | 101 | 75.94% |
| **Age Range** |  |  |
| 19 or younger | 8 | 6.02% |
| 20-24 | 52 | 39.10% |
| 25 or older | 73 | 54.89% |
| **Degree Type** |  |  |
| AA | \* | 3.01% |
| AAS | 35 | 26.32% |
| AS | 34 | 25.56% |
| CERT | 5 | 3.76% |
| CSC | 55 | 41.35% |
| **Graduation Status** |  |  |
| Did Not Graduate | 39 | 29.32% |
| Graduated | 94 | 70.68% |
| *Notes: \* n is less than 5* |
|  |

# What were our results?

## Direct Assessment:

Method 1: Artifacts-based Assessments

**Overall**

1,418 artifacts were assessed across 1,072 students. Artifacts measured one or more of the critical thinking learning objectives below and are counted for each learning objective that was assessed. As depicted in Table 1 below, 92.1% of the artifacts met the threshold score of 2.00 for critical thinking; this exceeds the 75% threshold of acceptability. Additionally, with an average artifact score of 3.20, the target artifact score of 3.00 was achieved.

Table 1. Critical Thinking by Individual Student Learning Outcomes

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Total number of artifacts assessed\* (N)** | **Average Score** | **Number that met threshold (n)** | **Percent that met threshold (%)** |
| **Critical Thinking** | **4079** | **3.20** | **3758** | **92.1%** |
| Conclusions | 1363 | 3.23 | 1248 | 91.6% |
| Identifies and Summarizes Issues | 914 | 3.22 | 851 | 93.1% |
| Key Assumptions | 899 | 3.17 | 827 | 92.0% |
| Quality of Evidence | 903 | 3.19 | 832 | 92.1% |

\* Artifact counted for each learning outcome that it assesses/it is assessed for.

Below, artifact results are disaggregated by modality, gender, race/ethnicity, age range, and award type. Artifact scores were calculated by averaging the student learning outcome scores assessed, which is why the average score and/or percent that met the threshold may be different than that shown in Table 1.

**Modality**

Critical Thinking was assessed across four modalities – face-to-face, hybrid, online asynchronous, and online synchronous sections. As depicted in Table 2 below, all modalities met the 75% threshold of acceptability for percentage of students that met the threshold score of 2.00 – 91.0% of students in face-to-face sections met the threshold (N=713), 89.0% of students enrolled in hybrid sections met the threshold (N=191), 90.1% of students enrolled in online asynchronous sections met the threshold (N=507), and 100.0% of students in online synchronous sections met the threshold (N=\*). The average score met the target score of 3.00 in all modalities (3.15, 3.25, 3.30, and 3.71, respectively).

Table 2. Critical Thinking by Modality

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Total number of artifacts assessed (N)** | **Average Score** | **Number that met threshold (n)** | **Percent that met threshold (%)** |
| **Overall** | **1418** | **3.22** | **1283** | **90.5%** |
| Face-to-Face | 713 | 3.15 | 649 | 91.0% |
| Hybrid | 191 | 3.25 | 170 | 89.0% |
| Online Asynchronous | 507 | 3.30 | 457 | 90.1% |
| Online Synchronous | \* | 3.71 | \* | 100.0% |

\* Sample size is less than ten students

**Gender**

As depicted in Table 3 below, all genders met the 75% threshold of acceptability for percentage of students who met the threshold score of 2.00 – 90.7% of female students met the threshold (N=845), 89.9% of male students met the threshold (N=543), and 96.7% students with unspecified gender met the threshold (N=30). Table 3 also establishes the average score met the target score of 3.00 for females, males, and unspecified students (3.26, 3.13, and 3.53, respectively).

Table 3. Critical Thinking by Gender

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Total number of artifacts assessed (N)** | **Average Score** | **Number that met threshold (n)** | **Percent that met threshold (%)** |
| **Overall** | **1418** | **3.22** | **1283** | **90.5%** |
| Female | 845 | 3.26 | 766 | 90.7% |
| Male | 543 | 3.13 | 488 | 89.9% |
| Not Specified | 30 | 3.53 | 29 | 96.7% |

**Race/Ethnicity**

As depicted in Table 4 below, all races met the 75% threshold of acceptability for percentage of students who met the threshold score of 2.00 – 100.0% of American Indian students met the threshold (N=\*), 90.7% of Asian students met the threshold (N=75), 85.4% of Black students met the threshold (N=151), 100.0% of Hawaiian/Pacific Islander students met the threshold (N=\*), 87.4% of Hispanic students met the threshold (N=103), 90.9% of students with an unspecified race/ethnicity met the threshold (N=33), 86.8% of students who identify as two or more races met the threshold (N=68), and 91.8% of White students met the threshold (N=983).

 As shown in Table 4, the average score met the target score of 3.00 for American Indian, Asian, Hawaiian/Pacific Islander, Hispanic, non-specified race, two or more race, and White students (3.25, 3.39, 3.00, 3.05, 3.52, 3.21, and 3.25, respectively). Black students met the threshold score of acceptability (2.00) with an average score of 2.94.

Table 4. Critical Thinking by Race/Ethnicity

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Total number of artifacts assessed (N)** | **Average Score** | **Number that met threshold (n)** | **Percent that met threshold (%)** |
| **Overall** | **1418** | **3.22** | **1283** | **90.5%** |
| American Indian | \* | 3.25 | \* | 100.0% |
| Asian | 75 | 3.39 | 68 | 90.7% |
| Black | 151 | 2.94 | 129 | 85.4% |
| Hawaiian/Pacific Islander | \* | 3.00 | \* | 100.0% |
| Hispanic | 103 | 3.05 | 90 | 87.4% |
| Not Specified | 33 | 3.52 | 30 | 90.9% |
| Two or More | 68 | 3.21 | 59 | 86.8% |
| White | 983 | 3.25 | 902 | 91.8% |

\* Sample size is less than ten students

**Age Range**

As depicted in Table 5 below, all age ranges met the 75% threshold of acceptability for percentage of students who met the threshold score of 2.00 – 90.5% of students 19 or younger met the threshold (N=671), 90.5% of students aged 20-24 met the threshold (N=400), and 90.5% of students 25 or older met the threshold (N=347). Table 5 also establishes the average score met the target score of 3.00 for students 19 or younger, 20-24, and 25 or older (3.17, 3.20, and 3.32, respectively).

Table 5. Critical Thinking by Age Range

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Total number of artifacts assessed (N)** | **Average Score** | **Number that met threshold (n)** | **Percent that met threshold (%)** |
| **Overall** | **1418** | **3.22** | **1283** | **90.5%** |
| 19 or younger | 671 | 3.17 | 607 | 90.5% |
| 20-24 | 400 | 3.20 | 362 | 90.5% |
| 25 or older | 347 | 3.32 | 314 | 90.5% |

**Award/Degree Type**

As depicted in Table 6 below, all award types met the 75% threshold of acceptability for percentage of students who met the threshold score of 2.00 – 96.8% of students seeking an Associate of Arts (AA) degree met the threshold (N=31), 88.3% of students seeking an Associate of Applied Science (AAS) degree met the threshold (N=298), 91.4% of students seeking an Associate of Science (AS) degree met the threshold (N=815), 100.0% of students seeking a Certification (CERT) met the threshold (N=\*), and 89.3% of students seeking a Career Studies Certificate (CSC) met the threshold (N=270).

Additionally, the average score met the target score of 3.00 for AA, AAS, AS, CERT, and CSC students (3.45, 3.30, 3.19, 3.00, and 3.19, respectively).

Table 6. Critical Thinking by Award/Degree

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Total number of artifacts assessed (N)** | **Average Score** | **Number that met threshold (n)** | **Percent that met threshold (%)** |
| **Overall** | **1418** | **3.22** | **1283** | **90.5%** |
| Associate of Arts (AA) | 31 | 3.45 | 30 | 96.8% |
| Associate of Applied Science (AAS) | 298 | 3.30 | 263 | 88.3% |
| Associate of Science (AS) | 815 | 3.19 | 745 | 91.4% |
| Certification (CERT) | \* | 3.00 | \* | 100.0% |
| Career Studies Certificate (CSC) | 270 | 3.19 | 241 | 89.3% |

\* Sample size is less than ten students

## Indirect Assessment:

Method 1: Graduation Survey

**Overall**

As depicted in Table 7 below, 100.0% of graduates indicated a score of 3.00 or better regarding their satisfaction with their critical thinking education – this met the threshold of acceptability of 85%. Additionally, with an average satisfaction score of 3.68, the target average satisfaction score of 3.00 was achieved.

Table 7. Overall Critical Thinking

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Total number of artifacts assessed (N)** | **Average Score** | **Number that met threshold (n)** | **Percent that met threshold (%)** |
| **Overall** | **211** | **3.68** | **211** | **100.0%** |

**Gender**

As depicted in Table 8 below, all genders met the 85% threshold of acceptability for percentage of graduates who met the threshold satisfaction score of 3.00 – 100.0% of scores from female graduates met the threshold (N=160), 100.0% of scores obtained from male graduates met the threshold (N=49), and 100.0% of the scores from graduates with an unspecified gender met the threshold (N=\*). As shown in Table 8, the average satisfaction score met the target score of 3.00 for females, males, and unspecified genders (3.68, 3.67, and 3.50, respectively).

Table 8. Critical Thinking by Gender

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Total number of artifacts assessed (N)** | **Average Score** | **Number that met threshold (n)** | **Percent that met threshold (%)** |
| **Overall** | **211** | **3.68** | **211** | **100.0%** |
| Female | 160 | 3.68 | 160 | 100.0% |
| Male | 49 | 3.67 | 49 | 100.0% |
| Not Specified | \* | 3.50 | \* | 100.0% |

\* Sample size is less than ten graduates

**Race/Ethnicity**

As depicted in Table 9 below, all races met the 85% threshold of acceptability for percentage of graduates who met the threshold satisfaction score of 3.00 (100.0%). The average satisfaction score met the target score of 3.00 for all groups – Asian (4.00), Black (3.63), Hawaiian/Pacific Islander (4.00), Hispanic (3.85), Not Specified (3.60), Two or More races (3.56) and White (3.67) graduates.

Table 9. Critical Thinking by Race/Ethnicity

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Total number of artifacts assessed (N)** | **Average Score** | **Number that met threshold (n)** | **Percent that met threshold (%)** |
| **Overall** | **211** | **3.68** | **211** | **100.0%** |
| Asian | \* | 4.00 | \* | 100.0% |
| Black | 30 | 3.63 | 30 | 100.0% |
| Hawaiian/Pacific Islander | \* | 4.00 | \* | 100.0% |
| Hispanic | 13 | 3.85 | 13 | 100.0% |
| Not Specified | \* | 3.60 | \* | 100.0% |
| Two or More | \* | 3.56 | \* | 100.0% |
| White | 147 | 3.67 | 147 | 100.0% |

\* Sample size is less than ten graduates

**Age Range**

As depicted in Table 10 below, all age ranges met the 85% threshold of acceptability for percentage of graduates who met the threshold satisfaction score of 3.00 – 100.0% of scores from graduates 19 or younger met the threshold (N=32), 100.0% of scores obtained from graduates 20-24 met the threshold (N=100), and 100.0% of the scores from graduates 25 or older met the threshold (N=79). As shown in Table 10, the average satisfaction score met the target score of 3.00 for graduates 19 or younger, 20-24, and 25 or older (3.60, 3.68, and 3.71, respectively).

Table 10. Critical Thinking by Age Range

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Total number of artifacts assessed (N)** | **Average Score** | **Number that met threshold (n)** | **Percent that met threshold (%)** |
| **Overall** | **211** | **3.68** | **211** | **100.0%** |
| 19 or younger | 32 | 3.60 | 32 | 100.0% |
| 20-24 | 100 | 3.68 | 100 | 100.0% |
| 25 or older | 79 | 3.71 | 79 | 100.0% |

\* Sample size is less than ten graduates

**Award/Degree**

As depicted in Table 11 below, all award types met the 85% threshold of acceptability for percentage of graduates who met the threshold satisfaction score of 3.00 – 100.0% of AA graduates (N=\*), 100.0% of AAS graduates (N=112), 100.0% of AS graduates (N=61), 100.0% of CERT graduates (N=\*), and 100.0% of CSC graduates (N=29) indicated satisfaction levels of 3 or better for critical thinking. Additionally, the average satisfaction score met the target score of 3.00 for all represented award types – AA (3.57), AAS (3.70), AS (3.57), CERT (3.50), and CSC (3.86).

Table 11. Critical Thinking by Award/Degree Type

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Total number of artifacts assessed (N)** | **Average Score** | **Number that met threshold (n)** | **Percent that met threshold (%)** |
| **Overall** | **121** | **3.68** | **211** | **100.0%** |
| Associate of Arts (AA) | \* | 3.57 | \* | 100.0% |
| Associate of Applied Science (AAS) | 112 | 3.70 | 112 | 100.0% |
| Associate of Science (AS) | 61 | 3.57 | 61 | 100.0% |
| Certification (CERT) | \* | 3.50 | \* | 100.0% |
| Career Studies Certificate (CSC) | 29 | 3.86 | 29 | 100.0% |

\* Sample size is less than ten graduates

Method 2: Alumni Survey

**Overall**

As depicted in Table 12 below, 97.0% of the alumni responded 3.00 or better regarding their satisfaction with their critical thinking education – this met the threshold of acceptability of 85%. Additionally, with an average satisfaction score of 4.30, the target satisfaction score of 4.00 was achieved.

Table 12. Overall Critical Thinking

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Total number of artifacts assessed (N)** | **Average Score** | **Number that met threshold (n)** | **Percent that met threshold (%)** |
| **Overall** | **133** | **4.30** | **129** | **97.0%** |

**Gender**

As depicted in Table 13 below, females and males met the 85% threshold of acceptability for percentage of alumni who met the threshold satisfaction score of 3.00 – 96.4% of scores from female alumna met the threshold (N=83) and 100.0% of scores obtained from male alumnus met the threshold (N=48). 50.0% of alum with unspecified gender met the threshold satisfaction score of 3.00. This does not meet the threshold of acceptability; however, note that the sample size for this group is less than ten.

As shown in Table 13, the average satisfaction score met the target score of 4.00 for female and male alum (4.34 and 4.29, respectively). Alum with unspecified gender met the threshold score of 3.00 with an average satisfaction of 3.00.

Table 13. Critical Thinking by Gender

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Total number of artifacts assessed (N)** | **Average Score** | **Number that met threshold (n)** | **Percent that met threshold (%)** |
| **Overall** | **133** | **4.30** | **129** | **97.0%** |
| Female | 83 | 4.34 | 80 | 96.4% |
| Male | 48 | 4.29 | 48 | 100.0% |
| Not Specified | \* | 3.00 | \* | 50.0% |

\* Sample size is less than ten alumni

**Race/Ethnicity**

As depicted in Table 14 below, all races except for two or more races met the 85% threshold of acceptability for percentage of alumni who met the threshold satisfaction score of 3.00 – 100.0% of scores from Asian alumni met the threshold (N=\*), 100.0% of scores obtained from Black alumni met the threshold (N=15), 100.0% of the scores from Hispanic alumni met the threshold (N=\*), 100.0% of the scores from alumni who did not specify their gender met the threshold (N=\*), and 97.0% of the scores from White alumni met the threshold (N=101). 50.0% of alumni that identified as two or more races indicated a satisfaction score of 3.00; this did not meet the threshold of acceptability. Note that the sample size for this group is less than ten.

As shown in Table 14, the average satisfaction score met the target score of 4.00 for Asian, Black, Hispanic, and White alumni (4.50, 4.47, 4.25, and 4.31, respectively). Alumni who did not specify race and alumni who identified as two or more races had a satisfaction score of 3.67 and 3.50, respectively; this meets the threshold score of acceptability (3.00).

Table 14. Critical Thinking by Race/Ethnicity

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Total number of artifacts assessed (N)** | **Average Score** | **Number that met threshold (n)** | **Percent that met threshold (%)** |
| **Overall** | **133** | **4.30** | **129** | **97.0%** |
| Asian | \* | 4.50 | \* | 100.0% |
| Black | 15 | 4.47 | 15 | 100.0% |
| Hispanic | \* | 4.25 | \* | 100.0% |
| Not Specified | \* | 3.67 | \* | 100.0% |
| Two or More | \* | 3.50 | \* | 50.0% |
| White | 101 | 4.31 | 98 | 97.0% |

\* Sample size is less than ten alumni

**Age Range**

As depicted in Table 15 below, all age ranges met the 85% threshold of acceptability for percentage of alumni who met the threshold satisfaction score of 3.00 – 100.0% of scores from alumni aged 19 or younger met the threshold (N=\*), 96.2% of scores obtained from alumni aged 20-24 met the threshold (N=52), and 97.3% of scores from alumni aged 25 or older met the threshold (N=73).

As shown in Table 15, the average satisfaction score met the target score of 4.00 for alumni 19 or younger, 20-24, and 25 or older (4.63, 4.23, and 4.32, respectively).

Table 15. Critical Thinking by Age Range

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Total number of artifacts assessed (N)** | **Average Score** | **Number that met threshold (n)** | **Percent that met threshold (%)** |
| **Overall** | **133** | **4.30** | **129** | **97.0%** |
| 19 or younger | \* | 4.63 | \* | 100.0% |
| 20-24 | 52 | 4.23 | 50 | 96.2% |
| 25 or older | 73 | 4.32 | 71 | 97.3% |

\* Sample size is less than ten alumni

**Award/Degree**

As depicted in Table 16 below, all awards/degrees met the 85% threshold of acceptability for percentage of alumni who met the threshold satisfaction score of 3.00 – 100.0% of scores from alumni seeking an Associate of Arts (AA) degree met the threshold (N=\*), 94.3% of scores obtained alumni seeking an Associate of Applied Science (AAS) degree met the threshold (N=35), 97.1% of the scores from alumni seeking an Associate of Science (AS) degree met the threshold (N=34), 100.0% of the scores from alumni seeking a Certification (CERT) met the threshold (N=\*), and 98.2% of the scores from alumni seeking to earn a Career Studies Certificate (CSC) met the threshold (N=55).

The average satisfaction score met the target score of 4.00 for all award types – alumni seeking an AA, AS, AAS, CERT, or CSC (4.25, 4.29, 4.26, 4.20, and 4.35, respectively).

Table 16. Critical Thinking by Award/Degree Type

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Total number of artifacts assessed (N)** | **Average Score** | **Number that met threshold (n)** | **Percent that met threshold (%)** |
| **Overall** | **133** | **4.30** | **129** | **97.0%** |
| Associate of Arts (AA) | \* | 4.25 | \* | 100.0% |
| Associate of Applied Science (AAS) | 35 | 4.29 | 33 | 94.3% |
| Associate of Science (AS) | 34 | 4.26 | 33 | 97.1% |
| Certification (CERT) | \* | 4.20 | \* | 100.0% |
| Career Studies Certificate (CSC) | 55 | 4.35 | 54 | 98.2% |

\* Sample size is less than ten alumni

**Graduation Status**

As depicted in Table 17 below, both graduation statuses met the 85% threshold of acceptability for percentage of students who met the threshold satisfaction score of 3.00 – 94.9% of scores from non-graduate alumnus met the threshold (N=39) and 97.9% of scores from students who graduated met the threshold (N=94). As shown in Table 17, the average satisfaction score met the target score of 4.00 for alumni who graduated (4.47). Alumni who did not graduate had an average satisfaction score that met the threshold score of acceptability (3.90).

Table 17. Critical Thinking by Graduation Status

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Total number of artifacts assessed (N)** | **Average Score** | **Number that met threshold (n)** | **Percent that met threshold (%)** |
| **Overall** | **133** | **4.30** | **129** | **97.0%** |
| Non-Graduates | 39 | 3.90 | 37 | 94.9% |
| Graduates | 94 | 4.47 | 92 | 97.9% |

\* Sample size is less than ten alumni

# Comparison of Results from Last Assessment

**Have results changed since the last time this competency was assessed?**

Critical Thinking was last assessed during the 2019-20 academic year. During that assessment cycle, 87.0% of direct assessment artifacts met the threshold of acceptability of scoring a 2.00 or better (N=150). During this assessment cycle, 90.5% of artifacts met the threshold of acceptability (N=1,418). Compared to 2019-20, critical thinking scores improved by 4.0% and the sample size increased over 845%.

In 2019-20, results were not disaggregated by gender, race, age range, or award type. Therefore, these comparisons will not be able to be made until the next assessment cycle. Additionally, no indirect assessments were conducted for Critical Thinking in 2019-20.

**What changes are we making to improve student learning for Critical Thinking?**

One change that was made since the last assessment cycle was moving general education assessment to Canvas, VWCC’s learning management system. Having the rubric available to all instructors allows for artifacts to be collected from any course that assesses one or more critical thinking student learning outcomes. This helped increase the number of artifacts collected by over 845% – increasing from 150 in 2019-20 to 1,418 in 2023-24.

The governance Assessment Committee will be presented with and review the Critical Thinking results in Fall 2024. Recommendations will be established by the committee and presented to the Faculty Senate for approval.

# Summary

For the direct, artifact-based assessment (N=1,418), VWCC is meeting its threshold of acceptability of 75% of students earning a 2.00 or better (90.5%). With an average score of 3.22, this also meets the target score. This direct assessment shows that VWCC students are proficient across all aspects of the critical thinking rubric.

According to the 2024 Graduation Survey, 100.0% of VWCC graduates (N=211) rated their satisfaction with their critical thinking education as 3.00 or better out of 4.00, exceeding the target of 85%. Additionally, the average satisfaction score for graduates was 3.68 out of 4.00, which meets the target average satisfaction score of 3.00.

Similarly, in the 2022 Alumni Survey, 97.0% of VWCC alumni (N=133) rated their satisfaction with their critical thinking education as 3.00 or better out of 5.00. This meets the target of 85%. The average satisfaction score for alumni was 4.30 out of 5.00, which meets the target average satisfaction score of 4.00. However, when disaggregating the alumni data, there were two subgroups whose average satisfaction rating with their critical thinking education was below 3.00 – alumni with unspecified gender and alumni with unspecified race. While it should be noted that these two groups had sample sizes less than ten, this finding will be brought to the Assessment Committee for further review.

In conclusion, while examining overall assessment results, VWCC students are proficient in their critical thinking skills and meet all thresholds of acceptability. This report will be shared with the governance Assessment Committee for feedback and next steps.

# Appendix A – Critical Thinking Rubric

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| **Critical Thinking Rubric** |
|  | **Excellent-4** | **Good-3** | **Acceptable-2** | **Needs Improvement-1** |
| **Identifies and summarizes issues** | Student identifies and clearly states the basics of the issue | Student states the main issue but description leaves some terms undefined | Student states the main issue but description leaves most terms undefined | Student does not identify and summarize the problem, or identifies a different or inappropriate problem |
| **Key assumptions** | Student identifies and questions the validity of the key assumptions | Student identifies most of the key assumptions and questions some of the assumptions | Student identifies most of the key assumptions and minimally questions some of the assumptions | Student does not examine the assumptions that underlie the issue |
| **Quality of evidence** | Student presents evidence and thoroughly questions its accuracy and relevance | Student presents evidence and questions its accuracy and relevance | Student presents evidence but fails to question its accuracy and relevance | Student merely repeats information taking it as truth or denies evidence without adequate justification. |
| **Conclusions** | Student presents logical conclusions | Student presents logical conclusions with minor flaws | Student attempts to present a conclusion. | Student fails to identify conclusions |

# Appendix B – Graduation and Alumni Survey Examples

Image 1. Graduation Survey Critical Thinking Satisfaction Question



Image 2. Alumni Survey Critical Thinking Satisfaction Question

