



COSUMNES RIVER COLLEGE

OFFICE OF RESEARCH & EQUITY

2020 – 2021 Assessment of Institutional Learning Outcomes

Excerpt from the 2020-2021 Graduate Exit Survey

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Executive Summary

Each year, the Research Office administers its Graduate Exit Survey, which contains a series of questions that ask graduates to self-assess how well they demonstrate the college's Institutional Learning Outcomes (ILOs). The results of the 2020-2021 ILO assessment, as well as a three-year longitudinal analysis of the Institutional Learning Outcomes, are outlined in this report.

The 2020-2021 Graduate Exit Survey was electronically administered in May 2021 to 1,329 students who either graduated in summer or fall 2020, or petitioned to graduate in spring 2021, with a 24.5% response rate (N=326). The respondents to the 2020-2021 were fully representative of the 2020-2021 graduating class in terms of gender, race, age group, first generation status, and income level.

2020-2021 Key Institutional Learning Outcomes Findings

For each of the twenty-two ILOs, the average rating for each skill/ability was greater than 4.0. An average rating of 4.0 or higher indicates that graduates feel they are able to demonstrate each ability/skill *Well* or *Very well*. ILOs 4.3 (the ability to *be mindful of divergent perspectives accompanied by awareness of personal prejudices and biases when considering issues*) and 4.4 (the ability to *demonstrate empathy, civility, and equitable conflict resolution*) received the highest average ratings. ILO 1.3 (the ability to *apply mathematical skills, including algebra, to problem solve for both occupational and personal purposes*) received the lowest average rating, though still at 4.0.

Statistical analyses tested for differences across respondent race, gender, age group, income level, first generation status, and Career & Academic Community (CAC). Several significant differences were found for first generation students, who reported significantly higher self-ratings for many of the ILOs. No other statistically significant differences were found.

2018-2021 Key Longitudinal Institutional Learning Outcomes Findings

As this is the third year administering the same ILO assessment to CRC graduates, the Research Office was able to conduct a longitudinal analysis of the findings across three years. For the most part, graduates' average ratings for each ILO did not change significantly across those years. However, when aggregating findings across the three years, the Research Office identified several statistically significant differences for various student demographic groups, as outlined below:

- Across three years, female graduates scored several items under ILO 4 (*Cultural Understanding, Social Justice, and Equity*) higher than other graduates.
- Across three years, Black/African American graduates and graduates of an Unknown race/ethnicity scored ILO 1.3 (*Apply mathematical skills, including algebra, to problem solve for both occupational and personal purposes*) lower than their peers.
- Across three years, graduates with an income below the poverty level scored ILO 3.1 (*Incorporate what is learned to make positive personal and professional changes*) higher than other graduates.
- Across three years, first generation graduates scored several items under ILO 1 (*Relevant Knowledge, Quantitative Reasoning, and Critical Habits of Mind*), ILO 3 (*Adaptability*), ILO 5 (*Competence in Social Responsibility and Sustainability*), and ILO 6 (*Creativity*) higher than their peers.



2020 – 2021 Institutional Learning Outcomes Analysis

The 2020-2021 Graduate Exit Survey was electronically administered in May 2021 to 1,329 students who either graduated in summer or fall 2020, or petitioned to graduate in spring 2021, with a 24.5% response rate (N=326). The respondents to the 2020-2021 were fully representative of the 2020-2021 graduating class in terms of gender, race, age group, first generation status, and income level.

Table 1 displays the average rating per skill/ability identified within each of the six ILOs. For each of the ILOs, the average rating for each skill/ability was greater than 4.0. An average rating of 4.0 or higher indicates that graduates feel they are able to demonstrate each ability/skill *Well* or *Very well*. ILOs 4.3 (the ability to *be mindful of divergent perspectives accompanied by awareness of personal prejudices and biases when considering issues*) and 4.4 (the ability to *demonstrate empathy, civility, and equitable conflict resolution*) received the highest average ratings. ILO 1.3 (the ability to *apply mathematical skills, including algebra, to problem solve for both occupational and personal purposes*) received the lowest average rating, though still at 4.0. See table one below for the average rating of each ILO.

Table 1. 2020-2021 Institutional Learning Outcomes, Average Ratings

Institutional Learning Outcomes (ILOs)	Mean	Number of Respondents
ILO Survey Items' Likert Scale: 1= Not at all, 2: Not very well, 3=Somewhat, 4=Well, 5=Very well		
ILO 1: Relevant Knowledge, Quantitative Reasoning, and Critical Habits of Mind		
1.1: Solve complex problems	4.2	269
1.2: Conduct basic research: collect, evaluate, and analyze relevant facts and information	4.3	269
1.3: Apply mathematical skills, including algebra, to problem solve for both occupational and personal purposes	4.0	269
1.4: Employ qualitative evaluation measures	4.1	267
1.5: Examine, reflect upon, and evaluate one's own thinking	4.5	268
1.6: Adapt to new circumstances, challenges, and pursuits	4.4	265
ILO 2: Effective Communication in Professional and Personal Situations		
2.1: Utilize principles of critical thinking and logic to inform, persuade, or otherwise participate in discourse	4.3	267
2.2: Write and verbally communicate in a clear, well-organized manner appropriate to the purpose, audience, and setting	4.4	267
2.3: Demonstrate analytical and discerning listening and reading practices	4.4	266
2.4: Employ graphic, creative, aesthetic, or non-verbal forms of expression	4.2	263
ILO 3: Adaptability		
3.1: Incorporate what is learned to make positive personal and professional changes	4.3	265
3.2: Use technology effectively for career, information, academic, and personal purposes	4.4	266
3.3: Demonstrate ability to update skills to accommodate rapid change in society's technological landscape	4.2	265
ILO 4: Cultural Understanding, Social Justice, and Equity		
4.1: Appreciate artistic expression, aesthetics, languages, and traditions across cultures	4.3	266
4.2: Participate in society with respect, empathy, and appreciation for human diversity	4.5	266



Institutional Learning Outcomes (ILOs)	Mean	Number of Respondents
ILO Survey Items' Likert Scale: 1= Not at all, 2: Not very well, 3=Somewhat, 4=Well, 5=Very well		
4.3: Be mindful of divergent perspectives accompanied by awareness of personal prejudices and biases when considering issues	4.5	266
4.4: Demonstrate empathy, civility, and equitable conflict resolution	4.5	266
ILO 5: Competence in Social Responsibility and Sustainability		
5.1: Recognize the individual's responsibility in local, national, and global matters	4.3	266
5.2: Address, through ethical reasoning, issues of social, political, and environmental well-being in the workplace, the greater community, the government, and the world	4.3	264
ILO 6: Creativity		
6.1: Employ inspiration and imagination in synthesizing existing ideas and material to generate original work such as novel solutions to problems, alternatives to traditional practices, and other innovations	4.2	266
6.2: Extend or challenge current understanding or expression through experimentation and divergent thinking	4.3	265
6.3: Exhibit persistence until efforts lead to a successful outcome	4.4	264

Statistical analyses tested for differences across respondent race, gender, age group, income level, first generation status, and Career & Academic Community (CAC). Several significant differences were found for first generation students, who reported significantly higher self-ratings for many of the ILOs, as outlined below:

- ILO 1.1 *Solve complex problems* ($F(1, 267) = 5.4, p < 0.05$)
- ILO 1.3, *Apply mathematical skills, including algebra, to problem solve for both occupational and personal purposes* ($F(1, 267) = 15.6, p < 0.001$)
- ILO 1.6, *Adapt to new circumstances, challenges, and pursuits* ($F(1, 263) = 4.4, p < 0.05$)
- ILO 2.4, *Employ graphic, creative, aesthetic, or non-verbal forms of expression* ($F(1, 261) = 8.1, p < 0.01$)
- ILO 3.1, *Incorporate what is learned to make positive personal and professional changes* ($F(1, 263) = 8.9, p < 0.01$)
- ILO 3.3, *Demonstrate ability to update skills to accommodate rapid change in society's technological landscape* ($F(1, 263) = 5.1, p < 0.05$)
- ILO 5.1, *Recognize the individual's responsibility in local, national, and global matters* ($F(1, 264) = 4.1, p < 0.05$)
- ILO 5.2, *Address, through ethical reasoning, issues of social, political, and environmental well-being in the workplace, the greater community, the government, and the world* ($F(1, 262) = 4.9, p < 0.05$)
- ILO 6.1, *Employ inspiration and imagination in synthesizing existing ideas and material to generate original work such as novel solutions to problems, alternatives to traditional practices, and other innovations* ($F(1, 264) = 12.1, p < 0.001$)
- ILO 6.2, *Extend or challenge current understanding or expression through experimentation and divergent thinking* ($F(1, 263) = 12.9, p < 0.001$)
- ILO 6.3, *Exhibit persistence until efforts lead to a successful outcome* ($F(1, 262) = 4.7, p < 0.05$)

Table 2 below provides detailed information on significant differences for first generation students.



Table 2. 2020-2021 Institutional Learning Outcomes, Statistically Significant Differences for First Generation Students

Institutional Learning Outcomes (ILOs)	First Generation	Not First Generation
ILO Survey Items' Likert Scale: 1= Not at all, 2: Not very well, 3=Somewhat, 4=Well, 5=Very well		
ILO 1: Relevant Knowledge, Quantitative Reasoning, and Critical Habits of Mind		
1.1: Solve complex problems	4.4 (78)	4.2 (191)
1.3: Apply mathematical skills, including algebra, to problem solve for both occupational and personal purposes	4.3 (78)	3.8 (191)
1.6: Adapt to new circumstances, challenges, and pursuits	4.6 (75)	4.3 (190)
ILO 2: Effective Communication in Professional and Personal Situations		
2.4: Employ graphic, creative, aesthetic, or non-verbal forms of expression	4.4 (76)	4.1 (187)
ILO 3: Adaptability		
3.1: Incorporate what is learned to make positive personal and professional changes	4.6 (77)	4.3 (188)
3.3: Demonstrate ability to update skills to accommodate rapid change in society's technological landscape	4.4 (77)	4.2 (188)
ILO 5: Competence in Social Responsibility and Sustainability		
5.1: Recognize the individual's responsibility in local, national, and global matters	4.5 (77)	4.3 (189)
5.2: Address, through ethical reasoning, issues of social, political, and environmental well-being in the workplace, the greater community, the government, and the world	4.5 (77)	4.2 (187)
ILO 6: Creativity		
6.1: Employ inspiration and imagination in synthesizing existing ideas and material to generate original work such as novel solutions to problems, alternatives to traditional practices, and other innovations	4.5 (77)	4.1 (189)
6.2: Extend or challenge current understanding or expression through experimentation and divergent thinking	4.5 (77)	4.2 (188)
6.3: Exhibit persistence until efforts lead to a successful outcome	4.5 (76)	4.3 (188)

2018 – 2021 Longitudinal Institutional Learning Outcomes Analysis

As this is the third year administering the same ILO assessment to CRC graduates, the Research Office was able to compare findings across three years. For the most part, graduates' average ratings for each ILO did not change significantly across those years. Table 3 below shows the average ratings for each ILO for 2018-2019 through 2020-2021.

There is a statistically significant downward trend for ILO 3.1 (*Incorporate what is learned to make positive personal and professional changes*) ($F(2, 846) = 3.249, p < 0.05$), which received an average rating of 4.5 in 2018-2019, 4.4 in 2019-2020, and 4.3 in 2020-2021. However, in order to avoid potential Type 1 errors (false positive findings), statistical replication of this finding is needed as the dataset grows. The Research Office will monitor this trend to see if it holds over time.



Table 3. 2018-2019, 2019-2020 & 2020-2021 Institutional Learning Outcomes, Average Ratings

Institutional Learning Outcomes (ILOs)	2018-2019	2019-2020	2020-2021
ILO Survey Items' Likert Scale: 1= Not at all, 2: Not very well, 3=Somewhat, 4=Well, 5=Very well			
ILO 1: Relevant Knowledge, Quantitative Reasoning, and Critical Habits of Mind			
1.1: Solve complex problems	4.3 (232)	4.3 (353)	4.2 (269)
1.2: Conduct basic research: collect, evaluate, and analyze relevant facts and information	4.3 (231)	4.3 (348)	4.3 (269)
1.3: Apply mathematical skills, including algebra, to problem solve for both occupational and personal purposes	4.1 (232)	4.0 (353)	4.0 (269)
1.4: Employ qualitative evaluation measures	4.2 (232)	4.1 (349)	4.1 (267)
1.5: Examine, reflect upon, and evaluate one's own thinking	4.5 (231)	4.5 (351)	4.5 (268)
1.6: Adapt to new circumstances, challenges, and pursuits	4.5 (231)	4.4 (351)	4.4 (265)
ILO 2: Effective Communication in Professional and Personal Situations			
2.1: Utilize principles of critical thinking and logic to inform, persuade, or otherwise participate in discourse	4.4 (231)	4.3 (354)	4.3 (267)
2.2: Write and verbally communicate in a clear, well-organized manner appropriate to the purpose, audience, and setting	4.5 (232)	4.4 (352)	4.4 (267)
2.3: Demonstrate analytical and discerning listening and reading practices	4.5 (229)	4.3 (354)	4.4 (266)
2.4: Employ graphic, creative, aesthetic, or non-verbal forms of expression	4.2 (230)	4.2 (353)	4.2 (263)
ILO 3: Adaptability			
3.1: Incorporate what is learned to make positive personal and professional changes	4.5 (231)	4.4 (353)	4.3 (265)
3.2: Use technology effectively for career, information, academic, and personal purposes	4.4 (231)	4.4 (351)	4.4 (266)
3.3: Demonstrate ability to update skills to accommodate rapid change in society's technological landscape	4.3 (229)	4.3 (353)	4.2 (265)
ILO 4: Cultural Understanding, Social Justice, and Equity			
4.1: Appreciate artistic expression, aesthetics, languages, and traditions across cultures	4.4 (231)	4.3 (353)	4.3 (266)
4.2: Participate in society with respect, empathy, and appreciation for human diversity	4.5 (231)	4.5 (354)	4.5 (266)
4.3: Be mindful of divergent perspectives accompanied by awareness of personal prejudices and biases when considering issues	4.5 (231)	4.5 (354)	4.5 (266)
4.4: Demonstrate empathy, civility, and equitable conflict resolution	4.5 (231)	4.5 (352)	4.5 (266)
ILO 5: Competence in Social Responsibility and Sustainability			
5.1: Recognize the individual's responsibility in local, national, and global matters	4.3 (230)	4.3 (354)	4.3 (266)
5.2: Address, through ethical reasoning, issues of social, political, and environmental well-being in the workplace, the greater community, the government, and the world	4.3 (227)	4.3 (354)	4.3 (264)
ILO 6: Creativity			
6.1: Employ inspiration and imagination in synthesizing existing ideas and material to generate original work such as novel solutions to problems, alternatives to traditional practices, and other innovations	4.2 (230)	4.2 (353)	4.2 (266)
6.2: Extend or challenge current understanding or expression through experimentation and divergent thinking	4.2 (230)	4.2 (353)	4.3 (265)
6.3: Exhibit persistence until efforts lead to a successful outcome	4.4 (228)	4.3 (351)	4.4 (264)



Several findings from 2018-2019, 2019-2020, and 2020-2021 also are reflected in the aggregate across these three years. There is a significant difference by gender for the following ILOs, such that female graduates scored the ILOs higher than male students and students with an unknown/undeclared gender. Table 4 displays each of these ILOs disaggregated by respondent gender.

- ILO 4.1 (F(1, 834) = 3.868, $p < 0.01$)
- ILO 4.2 (F(1, 835) = 4.775, $p < 0.05$)
- ILO 4.3 (F(1, 835) = 4.143, $p < 0.05$)
- ILO 4.4 (F(1, 833) = 5.187, $p < 0.05$)

Table 4. 2018-2021 Institutional Learning Outcomes Average Ratings, Gender

Institutional Learning Outcomes (ILOs)	Female	Male	Unknown/ Undeclared
ILO Survey Items' Likert Scale: 1= Not at all, 2: Not very well, 3=Somewhat, 4=Well, 5=Very well			
ILO 4: Cultural Understanding, Social Justice, and Equity			
4.1: Appreciate artistic expression, aesthetics, languages, and traditions across cultures	4.4 (564)	4.2 (272)	4.3 (14)
4.2: Participate in society with respect, empathy, and appreciation for human diversity	4.5 (565)	4.4 (272)	4.3 (14)
4.3: Be mindful of divergent perspectives accompanied by awareness of personal prejudices and biases when considering issues	4.5 (565)	4.4 (272)	4.4 (14)
4.4: Demonstrate empathy, civility, and equitable conflict resolution	4.5 (564)	4.4 (271)	4.4 (14)

When excluding groups with a sample size below 10 students, there is a significant difference by race for ILO 1.3 across three years (F(6, 839) = 3.73, $p < 0.01$), such that Black/African American students and students of an Unknown race/ethnicity scored the ILO lower than 4.0. Table 5 displays the average score for ILO 1.3 for each of the respondent race/ethnicity groups comprised of 10 or more students.

Table 5. 2018-2021 Institutional Learning Outcomes Average Ratings, Race/Ethnicity

Institutional Learning Outcomes (ILOs)	African American	Asian	Filipino	Hispanic / Latinx	Multi-Race	Unknown	White
ILO Survey Items' Likert Scale: 1= Not at all, 2: Not very well, 3=Somewhat, 4=Well, 5=Very well							
ILO 1: Relevant Knowledge, Quantitative Reasoning, and Critical Habits of Mind							
1.3: Apply mathematical skills, including algebra, to problem solve for both occupational and personal purposes	3.7 (88)	4.2 (226)	4.0 (49)	4.0 (206)	4.0 (55)	3.4 (17)	4.0 (205)

There is a significant difference by income level for ILO 3.1 (F(2, 764) = 3.167, $p < 0.05$), such that, across three years, graduates with an income below the poverty level scored the ILO higher than other graduates. Table 6 displays the average score for ILO 1.3 for each of the respondent income levels.



Table 6. 2018-2021 Institutional Learning Outcomes Average Ratings, Income Level

Institutional Learning Outcomes (ILOs)	Below Poverty	Low	Middle and Above
ILO Survey Items' Likert Scale: 1= Not at all, 2: Not very well, 3=Somewhat, 4=Well, 5=Very well			
ILO 3: Adaptability			
3.1: Incorporate what is learned to make positive personal and professional changes	4.5 (255)	4.4 (198)	4.35 (314)

There is a significant difference for first generation students for the following ILOs, such that, across three years, first generation graduates rated the ILOs higher than graduates who were not first generation college students. Table 7 displays the average scores for each of these ILOs disaggregated by first generation status.

- ILO 1.1 ($F(1, 852) = 13.337, p < 0.001$)
- ILO 1.3 ($F(1, 852) = 12.139, p < 0.001$)
- ILO 1.6 ($F(1, 845) = 4.720, p < 0.05$)
- ILO 3.1 ($F(1, 847) = 5.678, p < 0.05$)
- ILO 3.3 ($F(1, 845) = 5.618, p < 0.05$)
- ILO 5.1 ($F(1, 848) = 5.648, p < 0.05$)
- ILO 5.2 ($F(1, 834) = 1.889, p < 0.05$)
- ILO 6.1 ($F(1, 847) = 7.097, p < 0.01$)

Table 7. 2018-2021 Institutional Learning Outcomes Average Ratings, First Generation Status

Institutional Learning Outcomes (ILOs)	First Generation	Not First Generation
ILO Survey Items' Likert Scale: 1= Not at all, 2: Not very well, 3=Somewhat, 4=Well, 5=Very well		
ILO 1: Relevant Knowledge, Quantitative Reasoning, and Critical Habits of Mind		
1.1: Solve complex problems	4.4 (253)	4.2 (601)
1.3: Apply mathematical skills, including algebra, to problem solve for both occupational and personal purposes	4.2 (252)	3.9 (602)
1.6: Adapt to new circumstances, challenges, and pursuits	4.5 (249)	4.4 (598)
ILO 3: Adaptability		
3.1: Incorporate what is learned to make positive personal and professional changes	4.5 (252)	4.4 (597)
3.3: Demonstrate ability to update skills to accommodate rapid change in society's technological landscape	4.4 (250)	4.2 (597)
ILO 5: Competence in Social Responsibility and Sustainability		
5.1: Recognize the individual's responsibility in local, national, and global matters	4.4 (252)	4.3 (598)
5.2: Address, through ethical reasoning, issues of social, political, and environmental well-being in the workplace, the greater community, the government, and the world	4.4 (250)	4.3 (595)
ILO 6: Creativity		
6.1: Employ inspiration and imagination in synthesizing existing ideas and material to generate original work such as novel solutions to problems, alternatives to traditional practices, and other innovations	4.3 (251)	4.1 (598)