California State University Chico
College of Behavioral and Social Sciences

2021 – 2022
College of Behavioral and Social Sciences
Assessment of the QR Student Learning Outcome

Introduction:

In 2021 – 2022, the College of Behavioral and Social Sciences (BSS) continued its College-wide assessment strategy to evaluate BSS majors' mastery of the quantitative reasoning (QR) student learning outcome (SLO). The QR SLO was selected because WASC Senior College and University Commission (WSCUC) encourages students to acquire and develop higher-order intellectual skills and QR is considered a core competency.

Why a College-wide assessment?

In the past, each program within BSS designed and conducted its own SLO assessment. Most often, programs chose to assess content specific SLOs, which would be material covered in only one discipline (e.g., Political Science majors can demonstrate knowledge of basic structural components of national government and explain their relationship to each other and to subnational units or Anthropology majors can document, interpret, and analyze human cultural and biological diversity). These content specific SLOs, while useful and worthy of assessment, are not considered core competencies by WSCUC.

Additionally, at times, many programs' assessment strategies had flaws, which minimized the value of the final data reported. Some of these problems included, but were not limited to: not informing the students their work was being used for assessment, not using a rubric, or if a rubric was used, not providing the students the rubric in advance, and not having the assessors normed.

Occasionally, different programs would select the same SLO to assess. When the same SLO was assessed, different rubrics would be used to evaluate the students' work, so the results were not comparable. Due to these inconsistencies, the College was unable to evaluate the students' proficiency of the WSCUC core competencies at or near the point of graduation.

What is good direct assessment?

Countless books articulately and thoroughly discuss and explain quality assessment practices (see Appendix 1). This report will not belabor or dwell on the qualities of good assessment techniques. A very few of the main requisites for proper assessment include:

1. A clear and measurable SLO;
2. The SLO, the assignment, the rubric and how all three relate to each other are clearly communicated to the students before the assignment is due;
3. The assessors are normed or calibrated prior to their assessment work taking place;
4. The assessors have reasonable inter-rater reliability, and;

5. The assessment leads to actionable results that are shared with the faculty and broader constituencies as appropriate.

How did BSS design and conduct its assessment?:
The following steps were utilized to design and assess the QR SLO:

1. A meeting was conducted with the Curriculum Advisory Board (CAB) to learn how they assessed QR;
2. BSS was provided a copy of CAB's assessment tool, the Quantitative Literacy and Reasoning Assessment (QLRA);
    a. The QLRA was developed by Bowdoin College in collaboration with a National Science Foundation grant. The QLRA is non-proprietary and has content validity.
    b. CAB has twice used the QLRA to assess QR in General Education.
3. Upon receipt of the QLRA, the BSS Program Assessment Representatives Committee (PARC) determined some of the questions were inappropriate for students in the social sciences and began to revise the instrument;
4. During Fall 2021 and Spring 2022, the BSS program assessment representatives met several times to revise the document and created a living Google doc to track changes in real time;
5. Ultimately, there were substantial changes made from the QLRA to the assessment tool used by BSS;
6. Why did the BSS program assessment representatives make changes to the QLRA?
    a. Some of the QLRA questions required the knowledge of scientific equations not used in the social and behavioral sciences.
    b. Some of the prompts were changed to reflect real-world problems faced by BSS graduates, so instead of a question about the weight in pounds of a lobster catch, the language was changed to the weight in pounds of a fentanyl seizure.
    c. Some questions were added because they are more germane to QR skills students will learn in BSS major courses.
        i. Overall, 11 questions from the QLRA were modified/adapted, while nine new questions were created.
    d. A copy of both the QLRA and the assessment tool used by BSS are appended to this report (Appendix 2 and 3).
        i. A list of courses participating in the assessment can be found on Appendix 4.

Results:
The evaluation of BSS majors' QR skills (N = 417) revealed unimpressive results (please see Table 1). Of the 417 participants, 114 answered 12 questions or more correctly (27 percent). Of all the answers provided, 46 percent were correct. By comparison, in Spring 2022, CAB assessed QR using the traditional QLRA. Of the 118 BSS students who participated, they answered 29 percent of all

questions accurately. So, BSS students performed better with our version of the QR assessment compared to the CAB version.

Discussion:

There is a lot to discuss with this assessment. First, the results are disappointing. More than half of the answers provided were incorrect. It should also be noted in an exit survey to graduating BSS seniors in Fall 2023, 52 percent of respondents agreed they feel competent in the area of QR, which was the lowest response of the five core competencies. While this assessment is only one snapshot in time, the evidence demonstrates most of the BSS students sampled are deficient in their QR skills. Experts agree it is important to be critical of the significance of one assessment result. This report creates a baseline for BSS majors' competency in QR and begins the conversation in the College about how to help its students achieve competency. These findings, however, bear further scrutiny as discussed in the following section.

Weaknesses:

The assessment of QR was the most challenging of the five core competencies. Unlike the other four core competencies (written communication, oral communication, critical thinking, and information literacy), QR is not as universally applicable in BSS, and programs that use QR skills use them with differing intensities. As the BSS PARC was revising and redesigning the assessment tool, there was a lot of conversation surrounding what QR skills could be demonstrated via the tool and exactly what types of questions were "too hard." Many people reading this report might tend to criticize the difficulty of the assessment tool. The BSS PARC had to balance the assessment of the SLO and the difficulty of the questions, with the nationally recognized expertise of the QRLA. The BSS PARC might not have achieved a perfect balance, but the evidence indicates the BSS QR assessment tool is less challenging than the QRLA. One could also argue the BSS QR assessment tool was not "too hard," but the students did not perform satisfactorily to meet competency. For example, 40 percent, 50 percent, and 41 percent of students missed the following question, respectively:

- A set of data has a mean of 150 and a standard deviation of 3. How man standard deviations away from the mean is the value 162.
- In a geography course, 34 students earn exam scores between 42 and 49 out of 50. What is the range of the exam scores?
- The last 12 years have witnessed the following number of Political Science interns:

Year:	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Interns:	20	25	25	27	28	31	32	33	34	36	37	39

- What is the median number of interns?

None of the above questions are advanced nor require extensive calculations. Furthermore, concepts such as standard deviation, range, and median are fundamental to a degree in the behavioral and social

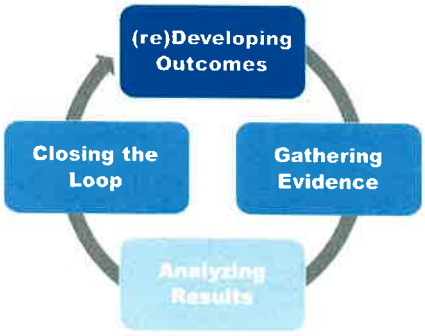
sciences. As evidence the assessment tool was not "too hard," 95 percent of Economics students answered at least 12 questions accurately and 84 percent answered 15 questions right.

Some have also criticized the methods how the assessment tool was distributed to students. Assessment facilitators were encouraged to ask participating faculty to follow best practices, including, but not limited to: making the assessment part of the course requirements, distributing the assessment during course time, and distributed in a course where the students are likely to be using the skills being assessed. The BSS PARC has no standing to demand faculty follow any specific protocol when distributing the assessment tool. Like all assessments, the quality of the output can suffer if best practices are not followed.

Moving forward:
As these results are understood and disseminated, BSS will implement the following strategies:

1. Ensure the results are distributed College-wide;
2. Discuss the results with chairs and faculty;
3. Encourage faculty to analyze their program's results and discuss methods to build QR into courses and develop best practices to increase students' competence in this area, and;
4. Continue to provide College-wide support individually to each program and through the BSS Student Success Center.

For the 2022 – 2023 academic year, BSS spent the year on perhaps the most crucial element of assessment: "closing the loop." Closing the loop allows programs the opportunity to make modifications to pedagogy and/or curriculum **to improve student learning**. Closing the loop efforts can also help with accredited programs as it provides evidence for the commitment to assessment and continuous improvement. The following graphic helps explain how assessment and closing the loop helps guide student learning. The closing the loop results will be published this coming academic year.



Contact:

For questions or concerns regarding this report, please contact Interim Dean Ryan Patten at rpatten@csuchico.edu or 898-6171.

Table 1:

	Q1	Q2	Q3	Q4	Q5	Q6	Q7^	Q8	Q9	Q10	Q11	Q12^	Q13	Q14^	Q15	Q16*	Q17	Q18	Q19	Q20	AVG
Total students with the correct answer	153	66	102	250	191	243	347	76	150	210	77	325	208	295	126	167	165	246	121	280	186
Percent students with the correct answer	37	16	24	60	46	58	83	18	36	50	18	78	50	71	30	40	40	59	29	67	46

* There were multiple correct answers, so credit was provided to all students with any of the correct answers.

APPENDIX 1

Allen, M. J. (2004). *Assessing academic programs in higher education*. San Francisco: Jossey-Bass.

Allen, M. J. (2006). *Assessing general education programs*. San Francisco: Jossey-Bass.

Banta, T. W., & Associates. (2002). *Building a scholarship of assessment*. San Francisco: Jossey-Bass.

Bresciani, M. J. (2006). *Outcomes-based academic and co-curricular program review*. Sterling, VA: Stylus.

Driscoll, A., & Wood, S. (2007). *Outcomes-based assessment for learner-centered education*. Sterling, VA: Stylus.

Kuh, G. D., Ikenberry, S. O., Jankowski, N. A., Cain, T. R., Ewell, P., Hutchings, P., and Kinzie, J. (2014). *Using Student Evidence to Improve Higher Education*. San Francisco: Jossey-Bass.

Suskie, L. (2nd edition; 2009). *Assessing Student Learning: A Common Sense Guide*. San Francisco: Jossey- Bass.

QLRA
QUANTITATIVE LITERACY & REASONING ASSESSMENT

Directions for Assessment

APPENDIX 2

You may use a calculator, but few problems require exact calculations. Please have scratch paper and pencil handy. Please select the one best answer to each question.

This is designed to test your quantitative reasoning skills, which is different from traditional mathematics material. You may not be familiar with all the concepts on the exam. Do not worry if something is new to you. Read each problem carefully and do your best. The test is not corrected for guessing, so it is to your advantage to answer each question.

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1. In a certain company there are 3 times as many men working as women. What is the fraction of employees that are female?

a. $\frac{1}{3}$ b. $\frac{3}{10}$ c. $\frac{2}{3}$ d. $\frac{3}{4}$ e. $\frac{1}{4}$

2. Maine lobstermen netted a record catch of 75,298,328 pounds of lobsters in 2006, which was a 5.2% increase over the previous record catch in 2004. What was the weight in pounds of the 2004 catch?

a. 79,213,841 b. 71,576,357 c. 71,122,366 d. 73,465,298 e. 71,382,815

3. There are 0.15 grams of powder in a dish. One-fifth of the powder spills out of the dish. How many grams of powder are left in the dish?

a. 0.12 b. 0.75 c. 0.30 d. 1.2 e. 0.03

4. Use the following table of 2010 exchange rates to solve the problem.

Currency	Dollars per Foreign	Foreign per Dollar
British pound	1.678	0.5958
Canadian dollar	0.7483	1.336
European euro	1.169	0.8554
Japanese yen	0.008482	117.9
Mexican peso	0.0943	10.6045

You wish to exchange 100 British pounds for Japanese yen. How many yen do you receive?

a. 0.8482 b. 0.505 c. 167.80 d. 11,790.43 e. 19,783.62

5. The age dependent population consists of the under 18 and over 64 year old populations. The age dependency ratio is computed by dividing the age dependent population by the 18-64 year old population, and multiplying by 100. In 2010 this ratio is 59.08. Which of the following sentences correctly uses the ratio?

a. The population that is age dependent is 59.08%.
b. The age dependent population is 59.08% of the population.
c. There are 59.08 people in the in the age dependent population per 100 people in the 18-64 population.
d. The percentage of the combined age dependent population that are dependent on the 18-64 population is 59.08%.
e. There are 59.08 people in the combined age dependent population per 100 people in the population.

6. A parcel of land measures $2\ ^{3}/_{5}$ acres. A developer wishes to divide the land into lots for houses each measuring 1/3 of an acre. Into how many complete lots can the acres of the parcel of land be divided?

a. 2 b. 6 c. 7 d. 8 e. 11

7. The 2010 federal budget for the United States includes spending $164 billion to pay interest on the national debt. If this amount is 4.62% of the total budget, what is the total federal budget? (1 billion = 10^9, 1 trillion = 10^{12})

a. $355 billion b. $156 billion c. $7.6 trillion d. $7.6 billion e. $3.55 trillion

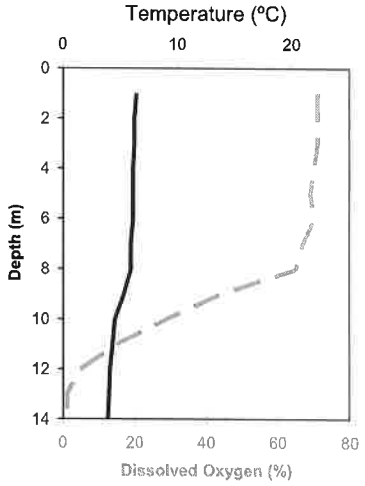
8. A married couple are calculating their federal income tax using the tax rate tables:

If Taxpayer's Income Is...		Then Estimated Taxes Are...		
Between	But Not Over	Base Tax	+ Rate	Of the Amount Over
$0	$16,700	$0	10%	$0
$16,700	$67,900	$1,670.00	15%	$16,700
$67,900	$137,050	$9,350.00	25%	$67,900
$137,050	$208,850	$26,637.50	28%	$137,050
$208,850	$372,950	$46,741.50	33%	$208,850
$372,950	-----	$100,894.50	35%	$372,950

How much tax will they have to pay on their taxable income of $112,000?

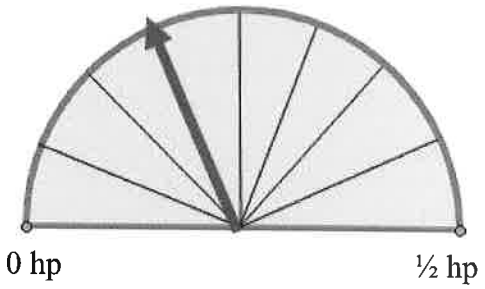
a. $28,000 b. $20,375 c. $9,350 d. $11,025 e. $37,350

9. The following graph shows temperature (solid line) and dissolved oxygen (dotted line), plotted against depth in a lake. Which of the following statements is correct?



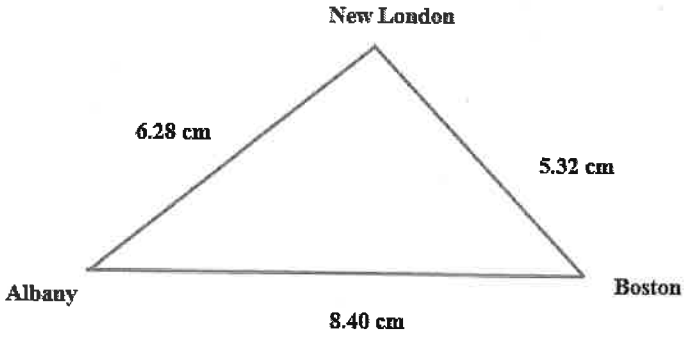
a. As depth increases both temperature and dissolved oxygen increase.
b. As depth increases dissolved oxygen increases and temperature decreases.
c. As depth increases both temperature and dissolved oxygen decrease.
d. As depth decreases both temperature and dissolved oxygen decrease.
e. As depth decreases dissolved oxygen decreases and temperature increases.

10. The attached gauge shows the power output of a small motor up to one-half horsepower (hp). Express the power output shown by the gauge in horsepower (hp), simplifying any fractions. Assume that the sections are evenly spaced.



a. 2/9 b. 3/4 c. 3/8 d. 3/16 e. 4/3

11. A triangle can be formed by drawing line segments on a map connecting New London, NH; Boston, MA; and Albany, NY. If the actual distance from New London to Boston is 88 miles, use the scaled triangle to calculate the distance between New London and Albany.

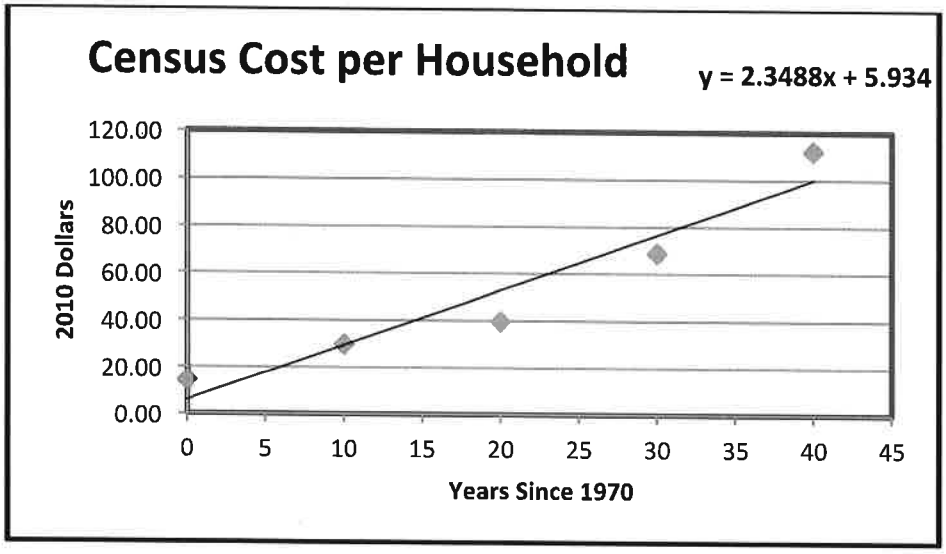


a. 55.7 b. 65.8 c. 103.9 d. 138.9 e. 176.0

12. Let $U_A = \frac{r}{1-U_B}$. Solve this equation for U_B in terms of U_A and r.

a. $\frac{r-U_A}{r}$ b. $\frac{r-U_A}{U_A}$ c. $\frac{1-r}{U_A}$ d. $\frac{U_A-r}{r}$ e. $\frac{U_A-r}{U_A}$

13. The following scatterplot shows the cost per household of the US census where $y = 2010\ dollars$ and $x = years\ since\ 1970$. What is the slope of the linear trendline, $= 2.3488x + 5.934$, telling us?



a. The cost per household in 1970 was $2.35.
b. The cost per household has been increasing by $2.35 per decade.
c. The cost per household was $5.93 in 1970.
d. The cost per household has been increasing by $5.93 per decade.
e. The cost per household has been increasing by $2.35 per year.

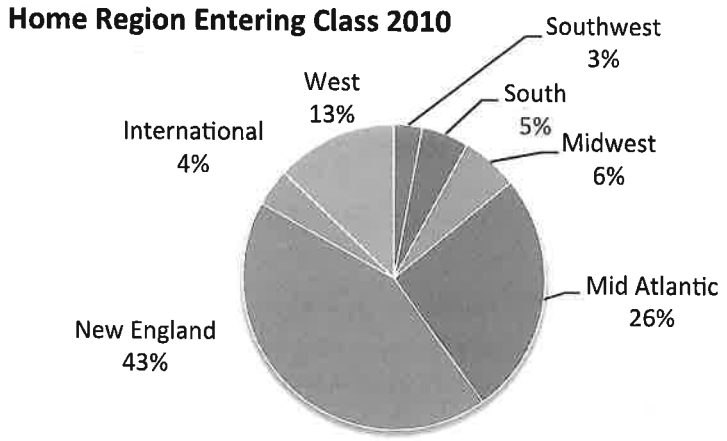
14. There were 480 students who entered as the Class of 2009. Of these, 430 submitted SAT scores by the time they enrolled. If you select a name at random from this class, what is the probability that the student did not submit an SAT score?

a. 5/43 b. 5/48 c. 43/48 d. 1.04% e. 0.104%

15. Rangers tagged and released 300 salmon into a Maine lake. A month later, fishermen on the lake were surveyed. They reported catching 80 salmon, 12 of which had tags. Using this sample, estimate the salmon population in the lake.

a. 450 b. 2000 c. 2400 d. 3000 e. 4500

The following graph displays the home region of the approximately 500 students who will enter Q College as the Class of 2014. Refer to it for problems #16-17.



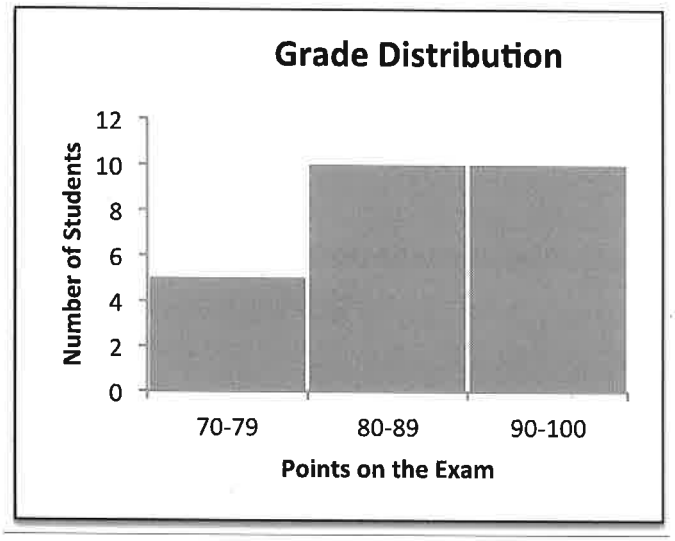
16. Choose the answer that best describes a comparison between the number of students from the Midwest and the number of International students.

a. The number of students from the Midwest is 2% more than the number of International students.
b. Twice as many students came from the Midwest as from International locations.
c. There are 25 more students from the Midwest than from International locations.
d. The number of International students is 25% more than the number from the Midwest.
e. The number of students from the Midwest is 50% more than the number of International students.

17. Of the entering students in 2010, 46% were male and 54% were female. Assume that gender is independent of the home region. What is the probability that a student selected at random is a female from the South?

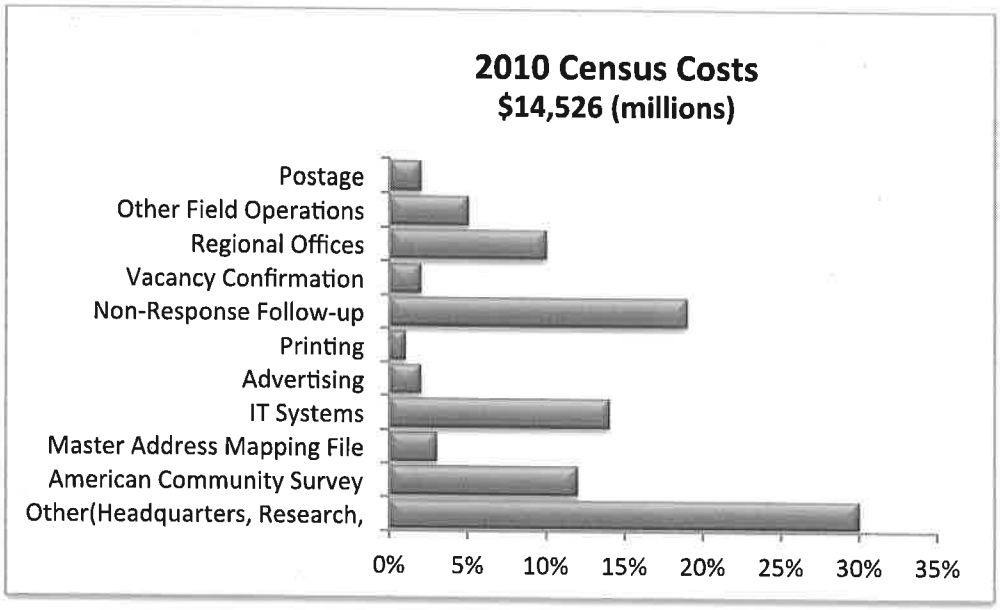
a. 0.027 b. 5/54 c. 0.09 d. 0.27% e. 0.9%

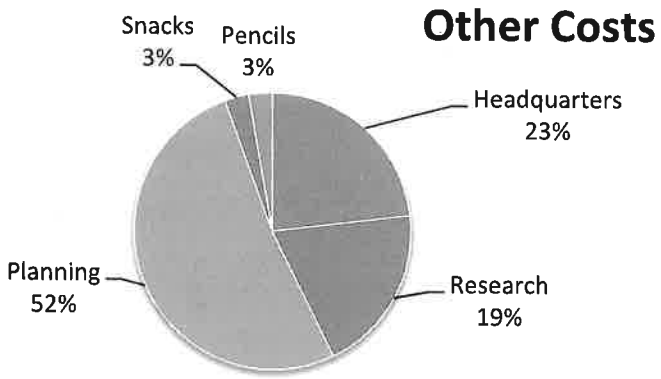
18. The grade distribution for the midterm in your Economics class with 25 students is given below. Which of the following statements below must be correct?



a. The highest possible class average (mean) for this exam is 93.
b. The class average (mean) for this exam is 87.
c. At least half of the people in the class got below an 85.
d. The lowest possible class average (mean) for this exam is 82.
e. At most, five students got a 100.

19. Using the charts below, compute how much was spent on ***Research*** for the 2010 Census.





a. $42 million b. $828 million c. $2,760 million d. $4,358 million e. $7,118 million

20. In 2009, the median earnings for men in the US workforce was $42,588 and the median earnings for women in the US workforce was $34,164. Which of the following is NOT a possible explanation for this discrepancy?

a. Women are paid less for the same work because of gender discrimination.
b. Men work more overtime.
c. There are more men in higher-paying jobs.
d. There are fewer women in the workforce.
e. Women take more time off of the work force for family leave.

THANK YOU!

THIS PROJECT SUPPORTED BY THE NATIONAL SCIENCE FOUNDATION, DUE 1140562

Demographic and Survey Questions

Please complete the following demographic information.

21. Please state your sex

a. Female b. Male

22. How many full years of college have you completed?

a. 0 b. 1 c. 2 d. 3 e. 4 or more

23. Please state your race/ethnicity

a. Hispanic or Latino b. Asian c. Black d. White (non-Hispanic) e. Other/Decline to state

24. What is your major or intended area of study?

a. Math/Science b. Social Sciences c. Humanities d. Engineering or Technology e. Other, Undecided, or Not Applicable

25. What is the highest level of college mathematics you have passed?

a. None b. Statistics c. College Algebra d. Pre-calculus e. Calculus

Please complete the following survey choosing the letter that most closely captures your agreement/disagreement with the following statements:

26. Numerical information is very useful in everyday life.
Strongly disagree **a** **b** **c** **d** **e** Strongly agree

27. Numbers are not necessary for most situations.
Strongly disagree **a** **b** **c** **d** **e** Strongly agree

28. Quantitative information is vital for accurate decisions.
Strongly disagree **a** **b** **c** **d** **e** Strongly agree

29. Understanding numbers is as important in daily life as reading and writing.
Strongly disagree **a** **b** **c** **d** **e** Strongly agree

30. It is a waste of time to learn information containing a lot of numbers.
Strongly disagree **a** **b** **c** **d** **e** Strongly agree

Default Question Block

APPENDIX 3

This assessment is designed to gauge your quantitative reasoning skills, which may look different from traditional mathematics material. You may not be familiar with all the concepts on the exam and do not worry if something is new to you. Please read each problem carefully, do your best, and select one answer for each question. You may use a calculator, but few problems require exact calculations. Please have scratch paper and pencil handy.

- ○ Click to proceed

At KinderCare, a day care center that offers year-round child-care and early childhood education for kids ages 0-12, there are 3 times as many employees who identify as female as there are employees who identify as male. What is the fraction of employees that identify as male?

- ○ 1/3 (one-third)
- ○ 3/10 (three-tenths)
- ○ 2/3 (two-thirds)
- ○ 3/4 (three-quarters)
- ○ 1/4 (one-quarter)

Which of the following statements accurately describes deductive reasoning?

- ○ It starts with a theory, then derives hypotheses, and collects observation to test the hypotheses.
- ○ It allows for the conclusion to be false.
- ○ It is sometimes referred to as a valid guess.
- ○ It starts with observations, seeks patterns in those observations, and generates conclusions based on those patterns.
- ○ All of the above.

If Taxpayer's Income Is... Between	But Not Over	Then Estimated Taxes Are... Base Tax	+ Rate	Of the Amount Over
$0	$16,700	$0	10%	$0
$16,700	$67,900	$1,670.00	15%	$16,700
$67,900	$137,050	$9,350.00	25%	$67,900
$137,050	$208,850	$26,637.50	28%	$137,050
$208,850	$372,950	$46,741.50	33%	$208,850
$372,950	-----	$100,894.50	35%	$372,950

A married couple is calculating their federal income tax using the tax rate tables. How much tax will they have to pay on their taxable income of $112,000?

- $28,000
- $20,375
- $9,305
- $11,025
- $37,615

A set of data has a mean of 150 and a standard deviation of 3. How many standard deviations away from the mean is the value 162?

- 2
- 4
- 6
- 8
- 12

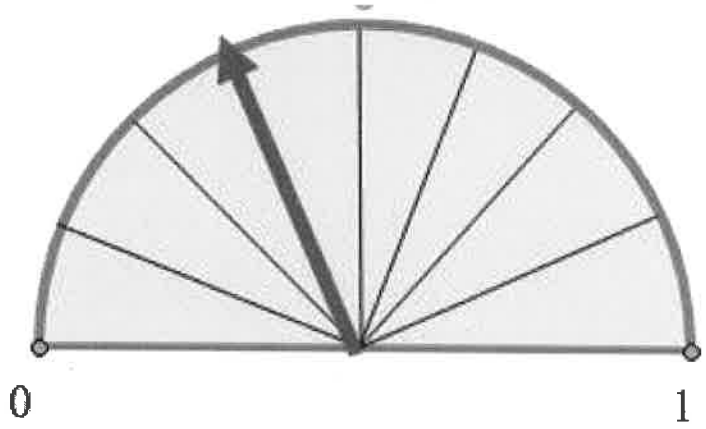
The Bureau of Alcohol, Tobacco, Firearms, and Explosives netted a record seizure of 74.69 pounds of fentanyl in 2018, which was a 5.2% increase over the previous record

seizure in 2014. What was the weight in pounds of the 2014 fentanyl seizure?

- ○ 68
- ○ 69
- ○ 70
- ○ 71
- ○ 72

A sample of 5 students were asked how much money they were carrying. These were their answers: $75, $2, $4, $0, $6. Why is the median more informative than the mean?

- ○ $75 is an outlier which skews mean.
- ○ The median is used for normal distributions.
- ○ The median helps us understand the difference between the highest and lowest values.
- ○ The mean is the number that is exactly halfway between the minimum and maximum numbers in a set of data, which is unhelpful with this data set.
- ○ None of the above.



The arrow in the figure above shows the portion of families living within the city of Chico who do not have adequate heating in the winter. Assume that the sections are evenly spaced. What fraction of families fall into this category?

- ○ 2/9 (two-ninths)
- ○ 3/4 (three-quarters)
- ○ 3/8 (three-eighths)
- ○ 3/16 (three-sixteenths)
- ○ 4/3 (four-thirds)

Which of the following statements about the P value do you believe to be true?

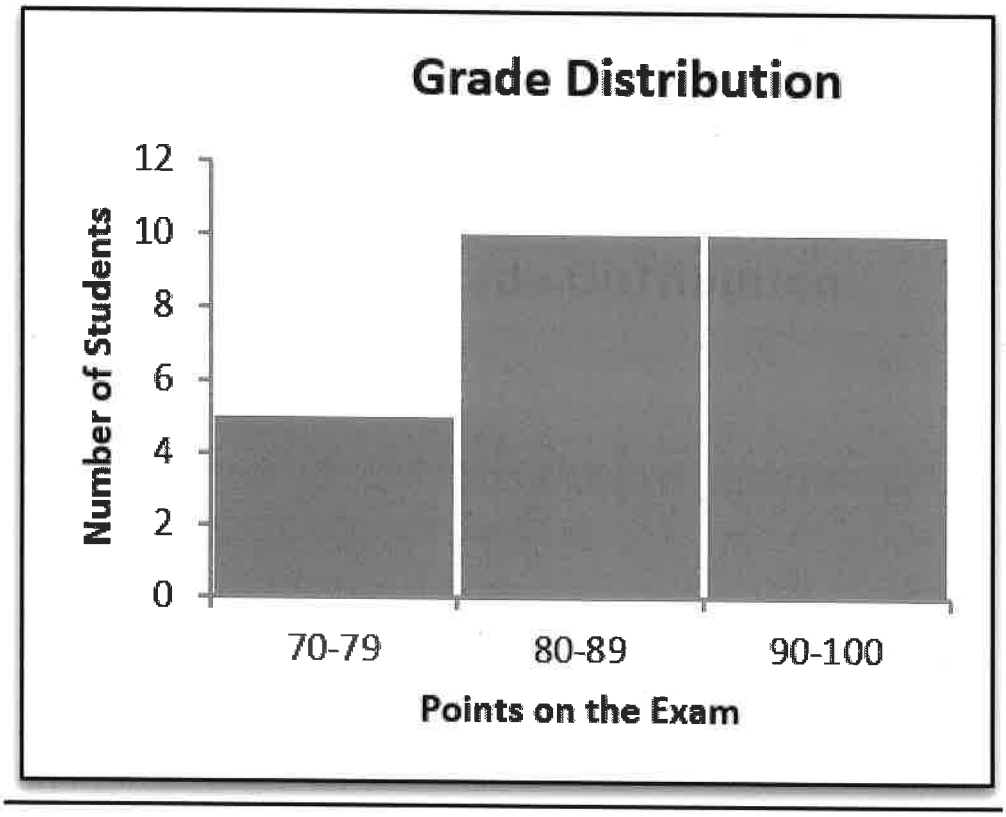
- The P value is the probability that the null hypothesis is true.
- The P value is the probability that the alternative hypothesis is true.
- The P value is the probability of obtaining the observed or more extreme results if the alternative hypothesis is true.
- The P value is the probability of obtaining the observed results or results which are more extreme if the null hypothesis is true.
- The P value is always less than 0.05.

In 2019, there were 480 students who entered Chico State as Department of Public Health and Health Administration majors. Of these, 430 submitted SAT scores by the time they enrolled. If a name is selected a name at random from this class, what is the probability that the student did not submit an SAT score?

- 5/43
- 43/48
- 5/48
- 1.04%
- 0.104%

In a geography course, 34 students earn exam scores between 42 and 49 out of 50. What is the range of the exam scores?

- 8
- 42
- 16
- 7
- 50



The grade distribution for the midterm in Dr. Nandi's Ethnic and Race Relations class with 25 students is provided in the above graph. Which of the following statements below must be correct?

- ○ The highest possible class average (mean) for this exam is 93.
- ○ The class average (mean) for this exam is 87.
- ○ At least half of the people in the class got below an 85.
- ○ The lowest possible class average (mean) for this exam is 82.
- ○ At most, five students got a 100.

What is the difference between quantitative and qualitative research?

- ○ Quantitative research produces "numerical data" or information that can be converted into numbers.
- ○ Qualitative research produces "numerical data" or information that can be converted into numbers.
- ○ Quantitative research focuses on an interview group involving a small number of demographically similar people.
- ○ Trick question! All research is both quantitative and qualitative, so there is no difference.
- ○ None of the above.

Choj is in the psychology lab using saline solution to dissect a sheep's brain. There is 0.15 ounces of saline solution in the dish. One-fifth of the liquid spills out of the dish. How many ounces of solution are left in the dish?

- 0.12
- 0.75
- 0.30
- 1.2
- 0.03

A criminologist collected data on the length of prison sentences, in months, for armed robbery. The prison sentences are as follows: 110, 250, 230, 230, 122, 286, 115, 299, 98, 140. What is the mean prison sentence in months?

- 188
- 204
- 115.5
- 210
- 98

Maria is a social worker and trying to figure out how many age-dependent people in her city might need services. The age-dependent population consists of people under the age of 18 and over the age of 64. The age dependency ratio is computed by dividing the age dependent population by the 18 – 64-year-old population and multiplying by 100. In 2020 this ratio is 59.08. Which of the following sentences correctly uses the ratio?

- The population that is age-dependent is 59.08%.
- The age-dependent population is 59.08% of the entire population.
- There are 59.08 people in the age-dependent population per 100 people in the 18-64 population.
- The percentage of the combined age-dependent population that are dependent on the 18-64 population is 59.08%.
- There are 59.08 people in the combined age-dependent population per 100 people in the entire population.

Which of the following levels of measurement can be logically ranked?

- O Nominal
- O Ordinal
- O Ratio
- O Interval
- O All of the above

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- O Nominal
- O Ordinal
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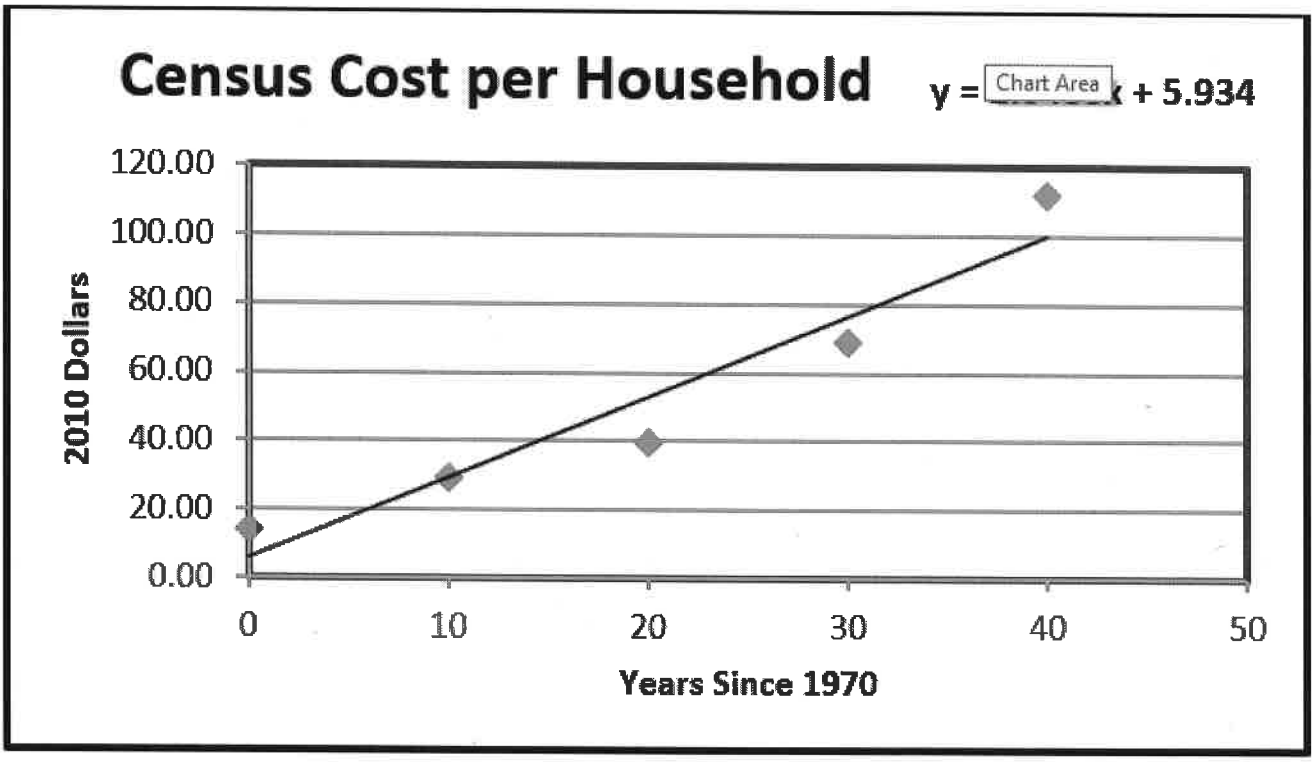
Miguel is searching for cultural artifacts in an expedition to Cambodia. He is standing before a piece of land which measures 2 3/5 acres. Miguel wishes to divide the land into parcels each measuring 1/3 of an acre each so his research team has an equal amount of land to search. Into how many complete lots can the acres of the parcel of land be divided?

- O 2
- O 5
- O 7
- O 8
- O 11

The last 12 years have witnessed the following number of Political Science interns:
What is the median number of interns?

Year:	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Interns:	20	25	25	27	28	31	32	33	34	36	37	39

- ○ 28
- ○ 30.5
- ○ 31
- ○ 31.5
- ○ 33.5



The following scatterplot shows the cost per household of the US census where y=2010 dollars and x=years since 1970. What is the slope of the linear trendline, y =2.3488x+5.934 telling us?

- ○ The cost per household in 1970 was $2.35.
- ○ The cost per household has been increasing by $2.35 per decade.

- ○ The cost per household was $15.93 in 1970.
- ○ The cost per household has been increasing by $5.93 per decade.
- ○ The cost per household has been increasing by $2.35 per year.

The following graph displays the home region of the approximately 500 students who will enter Chico State as the Class of 2026. Refer to it for this question.

Using the graph above, choose the answer that best describes a comparison between the number of students from the Central Valley and the number of International students.

- ○ The number of students from the Central Valley is 10 more than than the number of International students.
- ○ Twice as many students come from the Central Valley as from International locations.
- ○ There are 30 more students from the Central Valley than from International locations.
- ○ The number of International students is 20 more than the number from the Central Valley.
- ○ None of the above.

Please select your gender

- ○ Male
- ○ Female
- ○ Non-binary / third gender
- ○ Prefer not to say

How many years of college have you attended at Chico State?

- ○ 1

- 2
- 3
- 4
- 5 or more

Please state your race/ethnicity.

- American Indian/Alaskan Native
- Asian
- Black/African American
- Hispanic/Latinx/Latino
- Native Hawaiian/Other Pacific Islander
- White
- Two or More Races
- Prefer not to say

Are you a first-generation college student (neither mother nor father earned a Bachelor's degree)?

- Yes
- No
- I am unsure

What is your major (if a double major, please select your primary major)?

- Anthropology
- Child Development
- Criminal Justice
- Economics
- Geography and Planning
- Public Health
- Health Services Administration
- Intersectional Chicanx and Latinx Studies
- International Relations
- Legal Studies

- Multicultural and Gender Studies
- Political Science
- Psychology
- Public Administration
- Social Sciences
- Social Sciences - Distance Only
- Social Work
- Social Work - Distributed Learning
- Sociology
- Sociology - Distance Only

Numerical information and/or research data is very useful in everyday life.

- Strongly disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Strongly agree

Numbers and/or research data are not necessary for most situations.

- Strongly agree
- Somewhat agree
- Neither agree nor disagree
- Somewhat disagree
- Strongly disagree

Quantitative information is vital for accurate decisions.

- Strongly disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Strongly agree

Understanding numbers and/or research data is as important in daily life as reading and writing.

- ○ Strongly agree
- ○ Somewhat agree
- ○ Neither agree nor disagree
- ○ Somewhat disagree
- ○ Strongly disagree

It is a waste of time to learn information containing a lot of numbers and/or research data.

- ○ Strongly disagree
- ○ Somewhat disagree
- ○ Neither agree nor disagree
- ○ Somewhat agree
- ○ Strongly agree

Are you earning credit or extra credit for this assessment? If yes, please enter your Chico State student ID number.

APPENDIX 4

BSS Courses Participating in QR Assessment			
Name of Program	**Course Number**	**Title of Course**	**Students Assessed**
Anthropology*			
Child Development	495	Senior Seminar in Child Development**	40
Economics	431(W) & 499H	Theory of Money and Honors Independent Research in Economics	19
Geography and Planning	426	Water Resources Policy and Planning	10
Health and Community Services -- Health Administration	489	Internship	22
Health and Community Services -- Health Education	489	Internship	60
Multicultural and Gender Studies	495W	Senior Seminar in MCGS**	7
Criminal Justice	332	Criminal Justice Ethics	86
International Relations	412 & 441W	Comparative Political Institutions and Senior Seminar in IR**	18
General Political Science	421 and 429W	Applied Research Methods and Senior Seminar in POLS**	37
*Public Administration^*		*Did not participate*	0
*Psychology^*		*Did not participate*	0
Sociology	441	Public Sociology**	20
Social Science	333 and 495	Research and Inquiry in Social Science Capstone Seminar in Social Science**	40
Social Work	305	Community and Organizational Change	43

* Completed an alternative assessment
** Capstone course
^ Chose not to participate

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