**Exam 2**

* **Due** Apr 16 at 11:59pm

* **Points** 50

* **Questions** 11

* **Available** Apr 10 at 12am - Apr 16 at 11:59pm

* **Time Limit** 120 Minutes

**Instructions**

All exams will be cumulative. You will have 120 minutes to complete the exam and your answers will be locked after you proceed to the next question. Do not log off and log back on to finish the quiz. You must show your work in earn full credit.

This quiz was locked Apr 16 at 11:59pm.

Attempt History

|  | **Attempt** | **Time** | **Score** |
| --- | --- | --- | --- |
| **LATEST** | [Attempt 1](https://ilearn.laccd.edu/courses/223092/quizzes/1769883/history?version=1) | 65 minutes | 15 out of 50 |

 Correct answers are no longer available.

Score for this quiz: **15** out of 50

Submitted Apr 12 at 9:05pm

This attempt took 65 minutes.

**Question 1**

**1 / 1 pts**

A "distribution of differences between means" can be thought of as a distribution of



difference scores, which are found by subtracting sample means from the population mean.



the differences obtained when several methods of estimating the population mean are used in sequence.



the differences obtained when a sample mean from one population is repeatedly subtracted from a sample mean from another population.



the differences between a single sample from Population 1 and all possible samples from Population 2.

**Question 2**

**1 / 1 pts**

When using a *t* table, the degrees of freedom used for a *t* test for independent means is



the sum of the degrees of freedom for the two samples.



the average of the degrees of freedom for the two samples.



the sum of the two sample sizes, minus one.



the degrees of freedom for sample 1, divided by the sum of the degrees of freedom for both samples.

**Question 3**

**1 / 1 pts**

In the formula, *t* = (*M*1 – *M*2) / *S*difference, "*S*difference" is



the pooled estimate of the populations' standard deviation.



the sum of the standard deviations of the distribution of means.



the standard deviation of the distribution of differences between means.



the average standard deviation of the two samples.

**Question 4**

**1 / 1 pts**

You conducted a *t* test for independent means, and found that the *t* score equaled 0. This means that



the two population means must be equal.



the two sample variances must be equal.



the two sample means must be equal.



the two population variances must be equal.

**Question 5**

**1 / 1 pts**

​If an independent-measures *t* statistic has *df* = 20, then a total of 18 individuals participated in the research study.



False



True

**Question 6**

**3 / 20 pts**

Researchers wanted to know if participants who did yoga had better life satisfaction than individuals who did not do yoga on a scale of 1-20 (with higher numbers indicating more satisfaction). Use an alpha level of .05. **You must show all your work in order to earn full credit.**You can take a picture of your work if you would like but it needs to be a pdf or jpeg document (one upload only) or you can show your work in the open space in this question.

                                           No Yoga.                 Yoga

                                                6                    19

                                              13                      9

                                                8                    18

                                                4                    10

                                              13                    12

                                                4                    14

                                              11                    19

                                                5                    11

1. Restate the question as a research hypothesis and a null hypothesis about the populations (2 pts).

2. Determine the characteristics of the comparison distribution (5 pts).

3. Determine the cutoff sample score on the comparison distribution at which the null hypothesis should be rejected (3 pts).

4. Determine your sample’s score on the comparison distribution (5 pt).

5. Decide whether to reject the null hypothesis (5 pts).

Your Answer:

A new school district superintendent was preparing to reallocate resources for physically impaired students. He wanted to know if the schools in his district differed in the distribution of physically impaired students. He tested samples of 20 students from each of his five schools. He found 4 impaired (and 16 unimpaired) students at School 1; 1 impaired (and 19 unimpaired) at School 2; 6 (and 14) at School 3; 3 (and 17) at School 4; and 7 (and 13) at School 5.  
Do these data suggest that the distribution of physically impaired students is different at different schools? (Use the .01 significance level.)

t = 3.00

**Question 7**

**1 / 1 pts**

In a *t* test for dependent means, 15 participants are each tested twice. This makes a total of 15 "before" scores and 15 "after" scores. What are the degrees of freedom?



14



29



15



30

**Question 8**

**1 / 1 pts**

The difference between a *t* test for a single sample and a *Z* test for a single sample is the way



the variance of the known population is determined.



the decision about whether to reject the null hypothesis is made.



the problem is restated as a research hypothesis and a null hypothesis about the populations.



the mean of the known population is determined.

**Question 9**

**1 / 1 pts**

If a *t* test for dependent means is reported in a research article as "*t*(38) = 3.11, *p* < .01," then



you can assume a one-tailed test was used.



the result is significant.



the result is not significant.



there were 39 degrees of freedom.

**Question 10**

**1 / 1 pts**

​A researcher reports *t*(12) = 2.86, *p* < .05 for a repeated-measures research study. How many individuals participated in the study?



​*n* = 24



​*n* = 25



​*n* = 13



​*n* = 11

**Question 11**

**3 / 21 pts**

​Researchers wanted to know if same participants lost weight before and after yoga.. Use an alpha level of .05. Y**ou must show all your work in order to earn full credit.**The following data were obtained from a one study. You can take a picture of your work if you would like but it needs to be a pdf or jpeg document (one upload only) or you can show your work in the open space in this question.

Individual      1st    2nd

#1                  10      11

#2                  4        6

#3                  7        9

#4                  6        5

1. Restate the question as a research hypothesis and a null hypothesis about the populations (3 pts).

2. Determine the characteristics of the comparison distribution (5 pts).

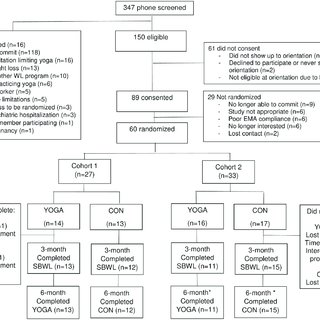
3. Determine the cutoff sample score on the comparison distribution at which the null hypothesis should be rejected (4 pts).

4. Determine your sample’s score on the comparison distribution (4 pt).

5. Decide whether to reject the null hypothesis (5 pts).

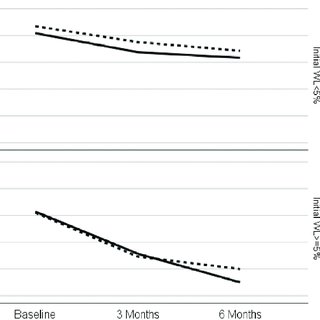
Your Answer:

bjective Yoga targets psychological processes which may be important for long-term weight loss (WL). This study is the first to examine the feasibility, acceptability, and preliminary efficacy of yoga within a weight management program following WL treatment. Methods 60 women with overweight or obesity (34.3±3.9 kg/m ² , 48.1±10.1 years) were randomized to receive a 12-week yoga intervention (2x/week; YOGA) or a structurally equivalent control (cooking/nutrition classes; CON), following a 3-month behavioral WL program. Feasibility (attendance, adherence, retention) and acceptability (program satisfaction ratings) were assessed. Treatment groups were compared on weight change, mindfulness, distress tolerance, stress, affect, and self-compassion at 6 months. Initial WL (3-mo WL) was evaluated as a potential moderator. Results Attendance, retention, and program satisfaction ratings of yoga were high. Treatment groups did not differ on WL or psychological constructs (with exception of one mindfulness subscale) at 6 months. However, among those with high initial WL (≥5%), YOGA lost significantly more weight (-9.0kg vs. -6.7kg) at 6 months and resulted in greater distress tolerance, mindfulness, and self-compassion and lower negative affect, compared to CON. Conclusions Study findings provide preliminary support for yoga as a potential strategy for improving long-term WL among those losing ≥5% in standard behavioral treatment.



Consort diagram. � While all participants completed the 6-month assessment visit, 1 YOGA and 2 CON participants from Cohort 2 did not continue to participate in the intervention beyond week 6 due to childcare issues as a result of the COVID-19 pandemic.

…



Adjusted median weight change over time by treatment arm and initial weight loss category. Initial weight loss is defined as percent weight loss achieved during behavioral weight loss treatment (3-month weight loss). https://doi.org/10.1371/journal.pone.0263405.g002

Please use the text as a guide on how to workout the problem.

Quiz Score: **15** out of 50

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