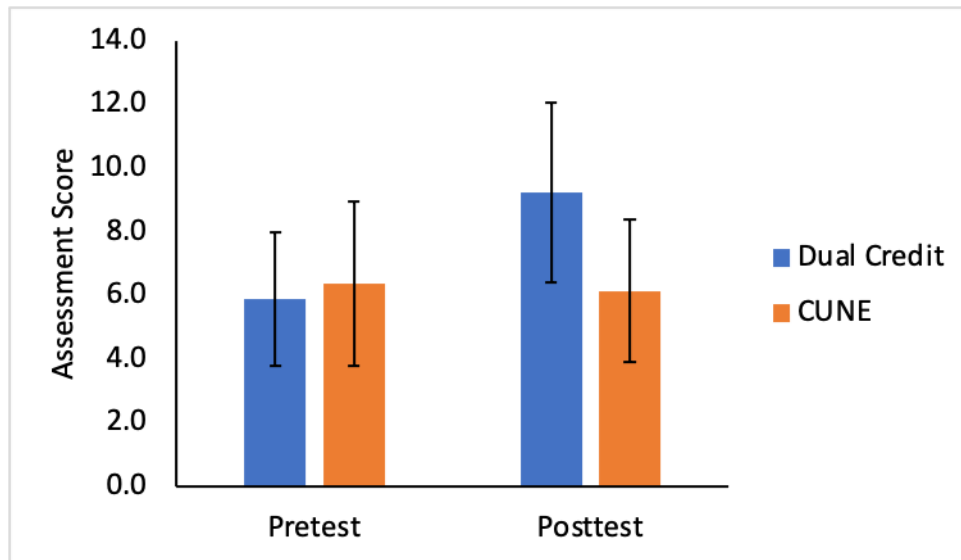# 2022– 23 Alternative Delivery Executive Summary

Submit to the BlackBoard Assessment Site.

---

**Department:** Human and Social Sciences      **Date:** 6/4/2023      **Course(s):** PSY 101
**Alternative Format(s) – select as many as are applicable:** Dual Credit            Select            Select

**Members** (must include more than course instructor only) **involved with analysis of artifacts:** Sara Brady and Thad Warren

**See Alternative Delivery Assessment Plan for:**
*a) Course requirement evaluation; b) Student Outcome; c) Question(s); e) Methodology*

**Analysis of artifacts:**
*1).* Student Outcome*: **PERFORMANCE CRITERIA**\* - How was data analyzed? (attach rubrics/scoring tools if used).* A 24-item knowledge test was administered via online at the beginning and end of the term. The test encompassed 12 domains (two items per domain). Pretest and posttest knowledge scores were computed from their answers. Students entered the last 4 digits of their phone number as an identifier such that pretest and posttest scores could be matched for the analysis. The pre- and posttest datasets were merged using the phone number identifer, term (i.e., Fall 2022 or Spring 2023) and instructor. The final dataset included all pretest and posttest responses for all students including CUNE and dual credit formats.
*2).* **COMPARABILITY** – *How did you determine if the outcomes of the traditional and alternative delivery modes were comparable?* (note "na" if delivery modes were not compared). Three independent sample t tests were conducted on the pretest scores, posttest scores, and change from pre- to posttest (difference scores). Due to insufficient sample size of complete data (CUNE N = 21; Dual Credit N = 51), the difference score was used to compare the two delivery formats as opposed to a paired t test from pre- to posttest for each group.

**Summary of RESULTS\*:**
*1). Restate the assessment question(s) (from the Assessment plan):* To what extent do students' knowledge scores improve over time on a multiple-choice knowledge test in psychology for CUNE and dual-credit courses?
*2). Summarize the assessment results. A narrative summary is required. Charts, tables or graphs are encouraged but optional.* The graph below displays the results of the analysis. To compare students' baseline knowledge scores, pretest scores did not differ between dual credit (M = 5.88, SD = 2.11) and CUNE courses (M = 6.35, SD = 2.58), t(171) = 1.30, p = .197, d = 0.20. However, students' posttest scores difference significantly between dual credit (M = 9.22, SD = 2.82) and CUNE students (M = 6.14, SD = 2.24), t(70) = 4.45, p < .001, d = 1.15. When examining change over time (i.e., difference between post and pretest scores), dual credit students (M = +3.35, SD = 3.40) reported a significantly higher rate of change compared to CUNE students (M = -0.81, SD = 2.36), t(70) = 5.12, p < .001, d = 1.33.
*3). **INTERPRETATION**\* - Discuss how the results answer the assessment question(s).* There was a significant change in knowledge scores over time for Dual Credit students. However, CUNE students' knowledge scores were relatively unchanged from pre- to posttest scores.
*4). Observations made that were not directly related to the question(s). (i.e. interrater reliability of the scoring tool was low)* The results from CUNE students were not representative of all CUNE PSY 101 students, because there was only one instructor who was able to administer both the pretest and posttest links to their students. One CUNE instructor only was able to collect pretest data. Furthermore, there was one Dual Credit instructor who was only able to collect posttest data. In addition, the total sample size of complete data (i.e., data from students who completed both the pretest and posttest) was larger in Fall 2022 than it was for Spring 2022 (Ns = 53, 19, respectively). This imbalance of sample size suggests that the data may not be representative of all students enrolled in PSY 101 and dual credit courses.
*5). **How did the outcomes of the traditional and alternative format analysis compare?*** Dual credit courses reported a significant increase in knowledge scores over the term, whereas CUNE courses reported no change.

**Sharing of Results:** *When were results shared? Date:* 6/4/2023      *How were the results shared? (i.e. met as a department)* Email      *Who were results shared with? (List names):* Thad Warren and department

**Discussion of Results –Summarize your conclusions including:**
*1.* **ACTION**\**- How will what was learned from the assessment impact the alternative format teaching of this course starting the next academic year?* Although convenient to implement, this assessment format may not be the most reliable method to use to assess student learning. Alternative assessment methods should be explored prior to the next academic year.
*2.* **IMPACT**\**- What is the anticipated impact of the **ACTION**\* on student achievement of the learning outcome in the next academic year?* If an alternative assement method is identified, then deficiences in student learning can be better identified, which can lead to better interventions that improve student achievement.
*3.* **BUDGET IMPLICATIONS** – *Indicate budget requirements necessary for the successful implementation of the* **ACTION**\* (i.e. an additional staff person, new equipment, additional sections of a course).      None

| | |
|---|---|
| **Submitted by:** Sara Brady   **Assessment Committee Reviewed (date):** 8/1/23 | |
| **Submitter notified approval/additional action needed:** Approved  8/1/23 | |
| **BUDGET IMPLICATIONS – Assessment Committee Chair notified appropriate Dean:** None | |

**Figure: Average Pretest (*N* = 173) and Posttest Scores (*N* = 72) for Dual Credit and CUNE students.**



*Note.* Unpaired data displayed. Number of CUNE instructors represented = 2. Number of Dual Credit instructors represented = 4.

**Full Data Used in Analysis**

| Term | Course Delivery Method | Instructor | Student_ID | Pretest | Posttest | Difference |
|---|---|---|---|---|---|---|
| Fall 2022 | CUNE | 13 | 0146 | 6.00 | | |
| Fall 2022 | CUNE | 13 | 0175 | 1.00 | | |
| Fall 2022 | CUNE | 13 | 0340 | 5.00 | | |
| Fall 2022 | CUNE | 13 | 0547 | 4.00 | 5.00 | 1.00 |
| Fall 2022 | CUNE | 13 | 0697 | | 8.00 | |
| Fall 2022 | CUNE | 13 | 0699 | 6.00 | | |
| Fall 2022 | CUNE | 13 | 0702 | 6.00 | | |
| Fall 2022 | CUNE | 13 | 0754 | 9.00 | | |
| Fall 2022 | CUNE | 13 | 0766 | 8.00 | | |
| Fall 2022 | CUNE | 13 | 0767 | 7.00 | 7.00 | 0.00 |
| Fall 2022 | CUNE | 13 | 0821 | 8.00 | 6.00 | -2.00 |
| Fall 2022 | CUNE | 13 | 0916 | 5.00 | | |
| Fall 2022 | CUNE | 13 | 1033 | 4.00 | | |
| Fall 2022 | CUNE | 13 | 1046 | 5.00 | | |
| Fall 2022 | CUNE | 13 | 1271 | 11.00 | | |
| Fall 2022 | CUNE | 13 | 1334 | 8.00 | 6.00 | -2.00 |
| Fall 2022 | CUNE | 13 | 1546 | 5.00 | | |
| Fall 2022 | CUNE | 13 | 1623 | 9.00 | | |
| Fall 2022 | CUNE | 13 | 1727 | 10.00 | | |
| Fall 2022 | CUNE | 13 | 2043 | 6.00 | | |
| Fall 2022 | CUNE | 13 | 2280 | 3.00 | | |
| Fall 2022 | CUNE | 13 | 2316 | 3.00 | | |
| Fall 2022 | CUNE | 13 | 2331 | 5.00 | | |
| Fall 2022 | CUNE | 13 | 2426 | 7.00 | | |
| Fall 2022 | CUNE | 13 | 2479 | 7.00 | | |
| Fall 2022 | CUNE | 13 | 2588 | 5.00 | | |

| Term | Course Delivery Method | Instructor | Student_ID | Pretest | Posttest | Difference |
|------|------------------------|------------|------------|---------|----------|------------|
| Fall 2022 | CUNE | 13 | 2782 | 4.00 | | |
| Fall 2022 | CUNE | 13 | 3331 | 8.00 | 7.00 | -1.00 |
| Fall 2022 | CUNE | 13 | 3406 | 8.00 | | |
| Fall 2022 | CUNE | 13 | 3789 | 11.00 | | |
| Fall 2022 | CUNE | 13 | 3985 | 3.00 | | |
| Fall 2022 | CUNE | 13 | 4063 | 7.00 | | |
| Fall 2022 | CUNE | 13 | 4263 | 6.00 | 7.00 | 1.00 |
| Fall 2022 | CUNE | 13 | 4350 | 3.00 | 6.00 | 3.00 |
| Fall 2022 | CUNE | 13 | 4353 | 8.00 | | |
| Fall 2022 | CUNE | 13 | 4368 | 9.00 | 3.00 | -6.00 |
| Fall 2022 | CUNE | 13 | 4651 | 6.00 | | |
| Fall 2022 | CUNE | 13 | 4656 | 8.00 | | |
| Fall 2022 | CUNE | 13 | 4684 | 2.00 | | |
| Fall 2022 | CUNE | 13 | 4690 | 9.00 | | |
| Fall 2022 | CUNE | 13 | 4887 | 8.00 | | |
| Fall 2022 | CUNE | 13 | 4932 | 6.00 | | |
| Fall 2022 | CUNE | 13 | 5028 | 7.00 | | |
| Fall 2022 | CUNE | 13 | 5030 | 5.00 | 4.00 | -1.00 |
| Fall 2022 | CUNE | 13 | 5214 | 10.00 | 8.00 | -2.00 |
| Fall 2022 | CUNE | 13 | 5557 | 4.00 | | |
| Fall 2022 | CUNE | 13 | 5564 | 4.00 | | |
| Fall 2022 | CUNE | 13 | 5682 | 11.00 | | |
| Fall 2022 | CUNE | 13 | 5728 | 4.00 | | |
| Fall 2022 | CUNE | 13 | 5830 | 1.00 | | |
| Fall 2022 | CUNE | 13 | 6007 | 4.00 | | |
| Fall 2022 | CUNE | 13 | 6062 | 9.00 | | |
| Fall 2022 | CUNE | 13 | 6095 | 3.00 | | |
| Fall 2022 | CUNE | 13 | 6381 | 6.00 | | |
| Fall 2022 | CUNE | 13 | 6441 | 5.00 | | |
| Fall 2022 | CUNE | 13 | 6601 | 1.00 | | |
| Fall 2022 | CUNE | 13 | 6783 | 9.00 | | |
| Fall 2022 | CUNE | 13 | 6809 | 7.00 | 6.00 | -1.00 |
| Fall 2022 | CUNE | 13 | 6842 | 7.00 | 7.00 | 0.00 |
| Fall 2022 | CUNE | 13 | 6848 | 7.00 | | |
| Fall 2022 | CUNE | 13 | 6920 | 8.00 | 9.00 | 1.00 |
| Fall 2022 | CUNE | 13 | 6964 | 8.00 | 5.00 | -3.00 |
| Fall 2022 | CUNE | 13 | 7193 | 4.00 | | |
| Fall 2022 | CUNE | 13 | 7501 | 3.00 | | |
| Fall 2022 | CUNE | 13 | 7632 | 3.00 | | |
| Fall 2022 | CUNE | 13 | 7646 | 9.00 | | |
| Fall 2022 | CUNE | 13 | 7695 | 10.00 | 9.00 | -1.00 |
| Fall 2022 | CUNE | 13 | 7903 | 6.00 | | |
| Fall 2022 | CUNE | 13 | 8108 | 10.00 | | |
| Fall 2022 | CUNE | 13 | 8157 | 8.00 | | |
| Fall 2022 | CUNE | 13 | 8380 | 10.00 | | |
| Fall 2022 | CUNE | 13 | 8390 | 2.00 | 3.00 | 1.00 |
| Fall 2022 | CUNE | 13 | 8454 | 9.00 | | |
| Fall 2022 | CUNE | 13 | 8522 | 3.00 | | |
| Fall 2022 | CUNE | 13 | 8593 | 7.00 | 9.00 | 2.00 |
| Fall 2022 | CUNE | 13 | 8678 | 10.00 | | |
| Fall 2022 | CUNE | 13 | 8696 | 7.00 | 10.00 | 3.00 |

| Term | Course Delivery Method | Instructor | Student_ID | Pretest | Posttest | Difference |
|------|------------------------|-----------|-----------|---------|----------|------------|
| Fall 2022 | CUNE | 13 | 8759 | 8.00 | | |
| Fall 2022 | CUNE | 13 | 8767 | 9.00 | | |
| Fall 2022 | CUNE | 13 | 8788 | 4.00 | | |
| Fall 2022 | CUNE | 13 | 8857 | 6.00 | | |
| Fall 2022 | CUNE | 13 | 8962 | 6.00 | | |
| Fall 2022 | CUNE | 13 | 9120 | 4.00 | 1.00 | -3.00 |
| Fall 2022 | CUNE | 13 | 9191 | 8.00 | 6.00 | -2.00 |
| Fall 2022 | CUNE | 13 | 9383 | 7.00 | | |
| Fall 2022 | CUNE | 13 | 9392 | 6.00 | | |
| Fall 2022 | CUNE | 13 | 9437 | 6.00 | | |
| Fall 2022 | CUNE | 13 | 9788 | 6.00 | | |
| Fall 2022 | CUNE | 13 | 9853 | 7.00 | | |
| Fall 2022 | CUNE | 13 | 9982 | 10.00 | 5.00 | -5.00 |
| Spring 2023 | CUNE | 12 | 0864 | 12.00 | | |
| Spring 2023 | CUNE | 12 | 2807 | 5.00 | | |
| Spring 2023 | CUNE | 12 | 3051 | 8.00 | | |
| Spring 2023 | CUNE | 12 | 6496 | 5.00 | | |
| Spring 2023 | CUNE | 12 | 7234 | 7.00 | | |
| Spring 2023 | CUNE | 13 | 1234 | 2.00 | | |
| Spring 2023 | CUNE | 13 | 9154 | 0.00 | | |
| Spring 2023 | CUNE | 16 | 0550 | 8.00 | | |
| Spring 2023 | CUNE | 16 | 2178 | 8.00 | | |
| Spring 2023 | CUNE | 16 | 9731 | 7.00 | | |
| Fall 2022 | Dual Credit | 10 | 0553 | | 8.00 | |
| Fall 2022 | Dual Credit | 10 | 0893 | | 7.00 | |
| Fall 2022 | Dual Credit | 10 | 1676 | | 8.00 | |
| Fall 2022 | Dual Credit | 10 | 2666 | | 7.00 | |
| Fall 2022 | Dual Credit | 10 | 3340 | | 7.00 | |
| Fall 2022 | Dual Credit | 10 | 3485 | | 6.00 | |
| Fall 2022 | Dual Credit | 10 | 3551 | | 9.00 | |
| Fall 2022 | Dual Credit | 10 | 4204 | | 5.00 | |
| Fall 2022 | Dual Credit | 10 | 6383 | | 8.00 | |
| Fall 2022 | Dual Credit | 10 | 6433 | | 5.00 | |
| Fall 2022 | Dual Credit | 10 | 7841 | | 7.00 | |
| Fall 2022 | Dual Credit | 10 | 8246 | | 8.00 | |
| Fall 2022 | Dual Credit | 10 | 9060 | | 9.00 | |
| Fall 2022 | Dual Credit | 10 | 9311 | | 2.00 | |
| Fall 2022 | Dual Credit | 10 | 9632 | | 6.00 | |
| Fall 2022 | Dual Credit | 13 | Tron | 5.00 | | |
| Fall 2022 | Dual Credit | 15 | 0255 | 4.00 | 11.00 | 7.00 |
| Fall 2022 | Dual Credit | 15 | 0328 | 4.00 | 12.00 | 8.00 |
| Fall 2022 | Dual Credit | 15 | 0419 | | 12.00 | |
| Fall 2022 | Dual Credit | 15 | 0511 | 6.00 | | |
| Fall 2022 | Dual Credit | 15 | 0813 | 9.00 | 10.00 | 1.00 |
| Fall 2022 | Dual Credit | 15 | 0966 | 4.00 | 1.00 | -3.00 |
| Fall 2022 | Dual Credit | 15 | 1013 | 5.00 | 7.00 | 2.00 |
| Fall 2022 | Dual Credit | 15 | 1171 | 5.00 | | |
| Fall 2022 | Dual Credit | 15 | 1182 | 5.00 | 12.00 | 7.00 |
| Fall 2022 | Dual Credit | 15 | 1227 | 10.00 | 12.00 | 2.00 |
| Fall 2022 | Dual Credit | 15 | 2024 | 10.00 | 12.00 | 2.00 |
| Fall 2022 | Dual Credit | 15 | 2160 | 7.00 | 12.00 | 5.00 |

| Term | Course Delivery Method | Instructor | Student_ID | Pretest | Posttest | Difference |
|------|------------------------|-----------|------------|---------|----------|------------|
| Fall 2022 | Dual Credit | 15 | 2852 | 3.00 | 12.00 | 9.00 |
| Fall 2022 | Dual Credit | 15 | 2925 | 5.00 | | |
| Fall 2022 | Dual Credit | 15 | 2939 | 8.00 | 9.00 | 1.00 |
| Fall 2022 | Dual Credit | 15 | 3330 | 7.00 | 11.00 | 4.00 |
| Fall 2022 | Dual Credit | 15 | 3977 | 9.00 | | |
| Fall 2022 | Dual Credit | 15 | 4157 | 4.00 | 12.00 | 8.00 |
| Fall 2022 | Dual Credit | 15 | 4466 | 4.00 | 10.00 | 6.00 |
| Fall 2022 | Dual Credit | 15 | 4853 | 7.00 | | |
| Fall 2022 | Dual Credit | 15 | 4975 | 7.00 | 9.00 | 2.00 |
| Fall 2022 | Dual Credit | 15 | 5311 | 5.00 | 7.00 | 2.00 |
| Fall 2022 | Dual Credit | 15 | 6342 | 5.00 | 11.00 | 6.00 |
| Fall 2022 | Dual Credit | 15 | 6406 | 7.00 | 11.00 | 4.00 |
| Fall 2022 | Dual Credit | 15 | 6494 | 6.00 | 12.00 | 6.00 |
| Fall 2022 | Dual Credit | 15 | 6540 | | 8.00 | |
| Fall 2022 | Dual Credit | 15 | 7027 | 6.00 | 11.00 | 5.00 |
| Fall 2022 | Dual Credit | 15 | 7279 | 4.00 | 11.00 | 7.00 |
| Fall 2022 | Dual Credit | 15 | 7394 | 3.00 | 11.00 | 8.00 |
| Fall 2022 | Dual Credit | 15 | 7905 | 2.00 | | |
| Fall 2022 | Dual Credit | 15 | 8132 | 2.00 | 11.00 | 9.00 |
| Fall 2022 | Dual Credit | 15 | 8275 | 6.00 | 12.00 | 6.00 |
| Fall 2022 | Dual Credit | 15 | 8420 | 5.00 | 8.00 | 3.00 |
| Fall 2022 | Dual Credit | 15 | 8699 | 7.00 | 12.00 | 5.00 |
| Fall 2022 | Dual Credit | 15 | 8906 | 6.00 | 11.00 | 5.00 |
| Fall 2022 | Dual Credit | 15 | 9122 | | 12.00 | |
| Fall 2022 | Dual Credit | 15 | 9192 | 5.00 | | |
| Fall 2022 | Dual Credit | 15 | 9274 | 5.00 | 12.00 | 7.00 |
| Fall 2022 | Dual Credit | 15 | 9331 | | 9.00 | |
| Fall 2022 | Dual Credit | 15 | 9372 | 5.00 | 8.00 | 3.00 |
| Fall 2022 | Dual Credit | 15 | 9608 | 3.00 | 12.00 | 9.00 |
| Fall 2022 | Dual Credit | 15 | 9665 | 8.00 | 11.00 | 3.00 |
| Fall 2022 | Dual Credit | 15 | 9958 | 8.00 | 10.00 | 2.00 |
| Spring 2023 | Dual Credit | 4 | 0082 | 2.00 | | |
| Spring 2023 | Dual Credit | 4 | 0859 | 7.00 | 7.00 | 0.00 |
| Spring 2023 | Dual Credit | 4 | 1743 | 8.00 | | |
| Spring 2023 | Dual Credit | 4 | 1984 | 6.00 | | |
| Spring 2023 | Dual Credit | 4 | 2398 | 8.00 | | |
| Spring 2023 | Dual Credit | 4 | 2883 | 3.00 | | |
| Spring 2023 | Dual Credit | 4 | 2946 | 5.00 | 12.00 | 7.00 |
| Spring 2023 | Dual Credit | 4 | 3646 | 5.00 | | |
| Spring 2023 | Dual Credit | 4 | 3724 | 7.00 | | |
| Spring 2023 | Dual Credit | 4 | 3919 | 6.00 | 5.00 | -1.00 |
| Spring 2023 | Dual Credit | 4 | 4166 | 3.00 | 5.00 | 2.00 |
| Spring 2023 | Dual Credit | 4 | 5082 | 7.00 | | |
| Spring 2023 | Dual Credit | 4 | 5168 | 5.00 | | |
| Spring 2023 | Dual Credit | 4 | 5263 | 4.00 | | |
| Spring 2023 | Dual Credit | 4 | 5981 | 6.00 | | |
| Spring 2023 | Dual Credit | 4 | 6227 | | 0.00 | |
| Spring 2023 | Dual Credit | 4 | 6271 | 3.00 | 7.00 | 4.00 |
| Spring 2023 | Dual Credit | 4 | 7318 | 7.00 | 11.00 | 4.00 |
| Spring 2023 | Dual Credit | 4 | 7681 | 11.00 | 9.00 | -2.00 |
| Spring 2023 | Dual Credit | 4 | 7880 | 9.00 | 10.00 | 1.00 |

| Term | Course Delivery Method | Instructor | Student_ID | Pretest | Posttest | Difference |
|------|------------------------|-----------:|------------|--------:|---------:|-----------:|
| Spring 2023 | Dual Credit | 4 | 8098 | 8.00 | 9.00 | 1.00 |
| Spring 2023 | Dual Credit | 4 | 8755 | 7.00 | 5.00 | -2.00 |
| Spring 2023 | Dual Credit | 4 | 9595 | 9.00 | | |
| Spring 2023 | Dual Credit | 4 | 9680 | 8.00 | | |
| Spring 2023 | Dual Credit | 16 | 0152 | 8.00 | 4.00 | -4.00 |
| Spring 2023 | Dual Credit | 16 | 1259 | 4.00 | 10.00 | 6.00 |
| Spring 2023 | Dual Credit | 16 | 1296 | 5.00 | 4.00 | -1.00 |
| Spring 2023 | Dual Credit | 16 | 3832 | 3.00 | 6.00 | 3.00 |
| Spring 2023 | Dual Credit | 16 | 4219 | 10.00 | | |
| Spring 2023 | Dual Credit | 16 | 6025 | 6.00 | 5.00 | -1.00 |
| Spring 2023 | Dual Credit | 16 | 6524 | 4.00 | | |
| Spring 2023 | Dual Credit | 16 | 7576 | 5.00 | 8.00 | 3.00 |
| Spring 2023 | Dual Credit | 16 | 8279 | 9.00 | 8.00 | -1.00 |
| Spring 2023 | Dual Credit | 16 | 9582 | 6.00 | 4.00 | -2.00 |
| Spring 2023 | Dual Credit | 16 | 9843 | 5.00 | 8.00 | 3.00 |