Online vs. Ground Outcomes

Upon converting grades to GPA

An independent-samples *t* test was performed to determine whether online course grades differ from traditional course grades. While the results were statistically significant, or in other words, reliable (aka, our results really exist, our sample reflects the population), given the extremely large sample size, $t(12752.3) = -3.15$, $p < 01$, the average online course grade ($M = 2.70$, $SD = 1.36$) was virtually identical to the average traditional course grade ($M = 2.74$, $SD = 1.29$), on a 4-point grading scale. Online courses (18.1%) had a higher attrition rate than ground courses (12.8%).

Using A, B, C, D, E, (W)

A two-way contingency table analysis was conducted to determine whether a relationship exists between course delivery (online vs. ground) and grades. The relationship between the two variables was statistically significant, $\chi^2(4, N = 100{,}240) = 74.7$, $p < .001$. The Contingency Coefficient indicates that 2.7% of the variance in course outcome was accounted for by course delivery. In other words, knowing students' mode of instruction enhances our prediction of their outcome by only 2.7%. When withdrawal rate was added as an outcome, the Contingency Coefficient (effect size/influence) increased to 5.5%, as online courses (18.1%) had a higher attrition rate than ground courses (12.8%), Pearson $\chi^2(5, N = 115{,}746) = 349.4$, $p < .001$.