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EDG 500

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Lab 10

To collect data for this scenario, we could gather test scores from the weekly testing group and the test after the unit in the third-grade classroom. Let's assume that the scores are out of 100, and higher scores indicate better performance.

Here's an example dataset:

Gender	**Test Scores After the Unit**	**Gender**	**Test Score Weekly**
Girl	78	Girl	95
Gi	80	Girl	92

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Boy	67	Boy	90
Girl	87	Boy	98
Boy	90	Girl	88
Girl	95	Boy	89
Girl	70	Boy	95

Boy	70	Girl	85
Girl	89	Boy	90
Boy	81	Girl	89
		Boy	94
		Girl	93

To test whether there will be a significant difference in math achievement between the two groups (weekly testing vs. unit testing) we will use an independent sample t-test. Our null hypothesis (Ho) if there is no significant difference in mean math achievement scores between the weekly testing group and the unit testing group. Our alternative hypothesis (Ha) will prove that there is a significant difference in mean math achievement scores between the two groups.

We will calculate the t-value and p-value using a two-tailed test with an alpha level of 0.05. If the p-value is less than 0.05, we will reject the null hypothesis and conclude that there is a significant difference in math achievement between the two groups.

To determine whether there will be any significant differences in achievement between the two groups we will use repeated measures the T test or ANOVA with one within-subjects factor (time: weekly testing vs. unit testing) and one between-subjects factor (group: weekly testing vs. unit testing). Our null hypothesis (Ho) will prove that there is no significant interaction between time and group, indicating that the effectiveness of the two testing methods does not differ over time. Our alternative hypothesis (Ha) will be that there is a significant interaction between time and group, indicating that the effectiveness of the two testing methods does differ over time.