

# [Example of research paper on research methods](https://assignbuster.com/example-of-research-paper-on-research-methods/)

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## Question 1

Question 2   
An independent-samples t-test was conducted to compare DRA scores among students receiving phonics training and a control group . There was a significant difference in the scores for the phonics group (M= 6. 4, SD= 1. 64) and the control group (M= 4. 4, SD= 1. 42); t(18)= 2. 9, p = . 01.

## The mean and standard deviations for Degree of Reading Ability (DRA) scores for Year 4 students are presented in table 1.

In the current sample, the difference between the phonics group and the control group was statistically significant; the group receiving phonics training had scored significantly higher on the Degree of Reading Ability test than the group that did not receive the training. As the DRA is a measure reflecting reading fluency, these results indicate that phonics training may contribute to improving reading fluency among Year 4 students.   
Nevertheless, the control group in the study had consisted of students receiving special classes without the phonics content, a more thorough research design would benefit from having a control group receiving " treatment as usual", meaning receiving no intervention at all, in order to determine whether any intervention may have some beneficial outcome. Moreover, future research may consider evaluating the phonics intervention among younger students, as well as employing a before-and-after design in order to measure individual improvement and determinants.

## Question 3

A one-way ANOVA was used to test for correct machinery assembly differences among three forms of time constraint and one control group. Machine assembly differed significantly across the various time constraints, F (3, 75) = 14. 12, p <. 001.   
Post hoc comparisons using the Fisher LSD test revealed that individuals in the low pressure group, working within a time constraint of 50 minutes showed a significantly higher rate of correct assembly than those working within a medium pressure framework of 40 minutes (M = 16. 62, 95% CI [6. 03, 27. 21]), p=. 003 of those in the high pressure group working in a timeframe of 30 minutes (M = 24. 92, 95% CI [14. 32, 35. 51]), p <. 001 but not higher than the control group with no time pressure. Individuals working within medium pressure group showed a significantly lower rate of correct assembly than the control group (M = -21. 6, 95% CI [-32. 05, -11. 14]), p <. 001, as did the individuals within the high pressure group (M = -29. 9, 95% CI [-40. 35, -19. 44]), p <. 001.   
Planned contrasts revealed that having any form of time constraint significantly decreased rate of correct assembly compared to no time constraints t(75)= -4. 383, p <. 001. In addition, a time constraint of 50 minutes significantly increased correct assembly compared to a 40 minute time constraint t(75)= 3. 126, p= . 003.   
The study results indicate that the employment of a time constraint significantly decreases the quality of work, as the number of correctly assembled parts decreased consistently as time constraint was more salient. Therefore, while imposing a time constraint may increase gross output, the quality of output does not benefit from time constraints. Moreover, there is an additive effect for time constraint in that the less time given, the lesser is the quality.   
Future studies may benefit from further exploring subjects’ demographic information such as age and experience, and evaluating the manner in which they affect performance in terms of quality and quantity. Moreover, future research may benefit from an in-depth examination of the quality-quantity ratio.   
Figure 1: mean differences in number of correct assemblies.

## Question 4

A repeated-measures analysis of variance revealed a decrease in rumination from the end of the first week to the end of the second week of the intervention, while at the end of the third week of intervention the rumination rate was slightly higher, albeit not statistically significant. The overall repeated measures analysis did not yield a statistically significant result. F(2, 8) = 4. 04, p > . 05.   
It seems that among the subjects participating in the intervention, while there were changes in rumination, the general change was not statistically significant. Future research may consider adding a control group in order to ascertain whether the intervention has an effect on rumination. Moreover, a baseline measurement of subjects’ rumination will allow a further differentiation of the intervention’s effect and perhaps allow distinguishing specific groups that may benefit from the intervention. A larger sample and the use of control groups, or otherwise compare baseline measurements to intervention measurements may compliment the current design. Moreover, a longer time period may allow a better indication of changes over time.   
Figure 1: rumination average