

Data analysis and discussion

[Science](#), [Statistics](#)



Data Analysis and Discussion al Affiliation: Data Analysis and Discussion

Locus Control This is a predictor variable. A total of 35 participants gave responses on different questions or baseline variables. For question 1, part A and B had a total mean of 1.20 whereby part A had 28 responses out of 35 and B had 7 responses out of 35. This implies that all the variables had responses and no variable scored 35 out of 35. The means for different questions vary; 1.20, 1.60, 1.80, 1.26, 1.09, 1.40 and 1.83 for questions 2, 3, 4, 5, 6, 7, 8 respectively. It is clear that the maximum mean for both part A and B is 2. However, there is no group that scored this maximum. Thus, the responses from the participants greatly varied according to one's opinion on a particular question.

The variance and standard deviation for all the baseline variables is relatively low. For instance, a standard deviation of 0.41 for the first question implies that the data points are very close to the real mean. On the other hand, the seventh question's standard deviation of 0.50 implies that the data points are far apart from each other; spread out in larger ranges of the variables.

Looking at the correlation matrix from excel sheet 3, a number of baseline variable have a correlation of 1 whereas others have -1. For instance, variable 1 and 2, 1 and 7, 1 and 5, 1 and 6, 2 and 5, 2 and 6, 2 and 7, 3 and 8, 4 and 8, 5 and 6, 5 and 7 have a correlation of 1 which implies that they have a strong positive linear relationship. Other combinations have a strong negative linear relationship as shown in excel file.

The alpha coefficient is 0.97772. This implies that the items in locus control have a high internal consistency and are linked to student's performance.

t-value

Q1

Q2

Q3

Q4

Q5

Q6

Q7

Q8

Q1

Q2

Q3

0.5

0.5

Q4

0

0

-2

Q5

9.5

9.5

0.416667

-0.10526

Q6

6.25

6.25

0.611111

0.16

3.833333

Q7

2

2

0

-0.5

2.4

1.636364

Q8

-0.04545

-0.04545

-1.875

-22

-0.15

0.115385

-0.53333

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Self-Efficacy

It has six questions or variables that seek to know the level of self-efficacy on students' performance. Just like locus control, this was done on 35 participants (students) who gave different responses for the baseline

variables; as shown by their means: 6.43, 6.66, 6.51, 1.97, 6.40 and 6.29 for question 1, 2, 3, 4, 5 and 6 respectively. The standard deviation for the second variable is 0.48 implying that the data points in this baseline variable are close to the mean. The highest standard deviation is 1.25 for the fourth baseline variable. This shows that the data points for this variable are far from the mean.

From the excel sheet 3, the correlation coefficient differ greatly. For instance, baseline variable 1 and 2 have a correlation of 1 which shows that they have a strong positive correlation. Variable 2 and 8 have a strong negative relationship, a correlation of -0.96782.

Self-efficacy has an alpha coefficient of 0.940131 which imply that the items here have a high internal consistency and are linked to the performance of students.

t-values

Strongly Disagree

Disagree

Slightly Disagree

Neither

Slightly Agree

Agree

Strongly Agree

Strongly Disagree

Disagree

1

Slightly Disagree

1

1

Neither

0. 841605

0. 802702

0. 614295

Slightly Agree

0. 110838

-0. 06608

-0. 73869

-2. 80306

Agree

-1. 94743

-2. 33637

-3. 52971

-5. 94763

-5. 70088

Strongly Agree

-2. 3585

-2. 67274

-3. 51406

-4. 78239

-4. 4125

-3. 02372