Studying The Effect of Mathematics Department Students' Housing Type On Their General Intelligence (IQ) And Emotional Intelligence (EQ)

Using Regression Analysis

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1. Introduction

Testing general intelligence (IQ) and emotional intelligence (EQ) are important international tests that give us an idea of students' mental and behavioral abilities with each other. From this standpoint, questionnaires containing the above tests were distributed to a sample of students from the Mathematics Department, and the test questions (general intelligence test and emotional intelligence test) were answered, and were classified according to the gender of the students (male and female), and the effect of the type of university student housing on the level of study was studied. His general intelligence and his level of emotional intelligence (whether the student's stability and comfort in housing are affected by his IQ and academic production or not). To answer this question, regression analysis was used and applied using the statistical program SPSS, and the results of the analysis were explained in the following sections of the article.

2. Graphical shapes for student data

Forms for the two tests (general intelligence (IQ) and emotional intelligence (EQ)) were distributed to students of the Mathematics Department at the College of Computer Science and Mathematics at the University of Kufa for the first semester of the academic year 2023-2024, where the students were asked about their type of housing during their academic studies (with family, boarding section, renting a house , others) The questions were answered, the forms were corrected, and each student was given the appropriate grade for him, whether in the general intelligence or emotional intelligence test. The data was arranged in appropriate frequency tables, and then those tables were drawn to see the distribution of student scores in the two tests (general IQ and emotional intelligence EQ) among female and male students in the Mathematics Department. The results of the graph were as follows:

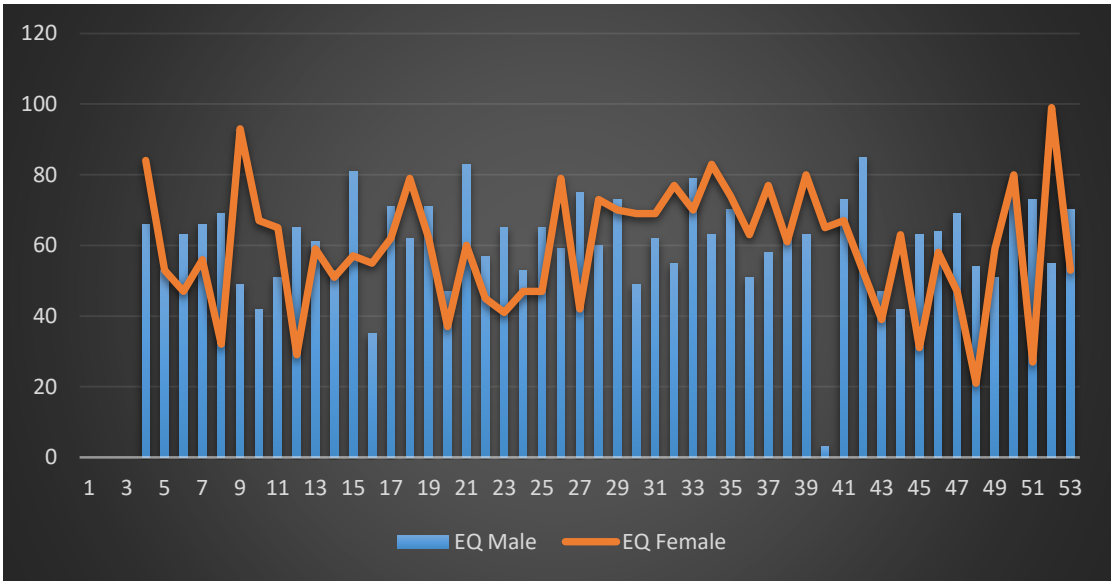

Figure 1. Scores of mathematics department students (males and females) in the emotional intelligence test.

We notice from the graph above that the scores of students in the Mathematics Department in the emotional intelligence test fluctuated, with the IQ of male students in emotional intelligence ranging from 3 to 85 degrees, and most of the male students' scores were concentrated in the category (61-70). As for female students, their emotional intelligence ranges from 21 to 99 degrees, and the two categories in which the female students' emotional intelligence scores were most concentrated were (51-60) and (61-70).

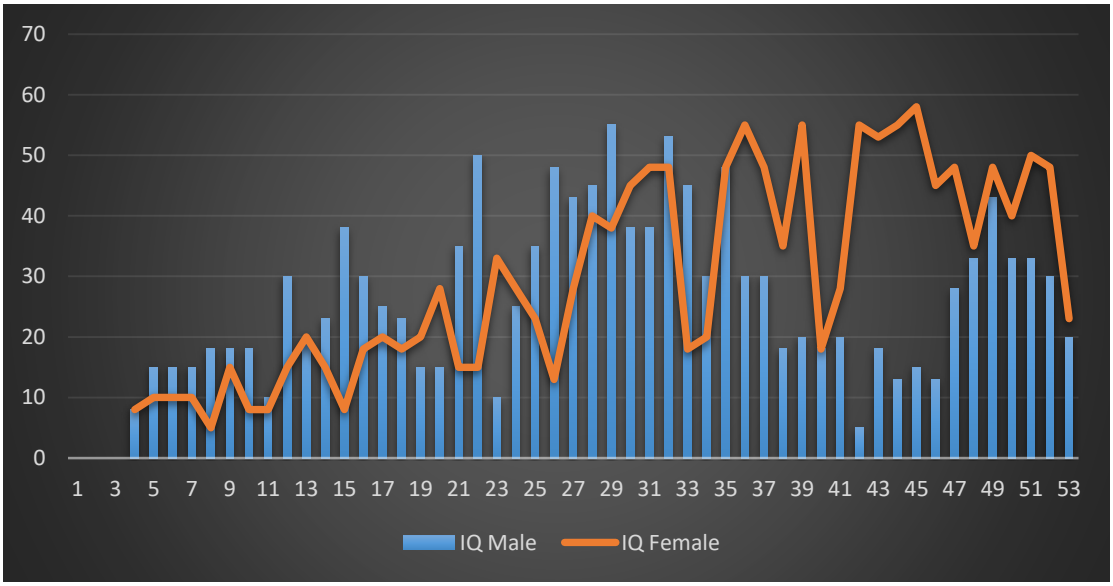

Figure 2. Scores of Mathematics Department students (males and females) on the general intelligence test.

Through the graph above, we notice the rise and fall of students' scores in the general intelligence test, where the male students' scores ranged from 5 to 55 degrees, while the female students ranged from 5 to 58 degrees.

3. Regression analysis

Regression analysis was used to study the effect of a university student's residence on his general intelligence and emotional intelligence. The statistical analysis was classified according to the gender of the students (males and females) and also according to the four academic levels, as follows:

3.1. First level/Males / Emotional Intelligence EQ

The data of male students in the first academic stage in the emotional intelligence test was analyzed, and the results were shown in the following table:

Model	R	R^2	$\overline{R^2}$	F	Sig.	β	t	Sig.
Constant	0.498	0.248	0.164	2.961	0.119	69.786	9.609	0.000
Residence						-8.64	−1.721	0.119

The table above shows that the regression model is not significant and that the percentage of interpreting the analysis results correctly is 24%. The type of student housing does not affect the emotional intelligence of male students in the first stage of study.

3.2. First level/Males / General Intelligence IQ

The data of male students in the first stage of study in the general intelligence test was analyzed, and the results were shown in the following table:

Model	R	R^2	$\overline{R^2}$	F	Sig.	β	t	Sig.
Constant	0.334	0.112	0.013	1.132	0.315	22.679	4.208	0.002
Residence						-3.964	-1.064	0.315

The table above shows that the regression model is insignificant and that the percentage of interpreting the analysis results correctly is 11%. The type of student housing does not affect the general intelligence score of male students in the first study stage.

3.3. First level/ Females / Emotional Intelligence EQ

The data of female students in the first academic stage in the emotional intelligence test was analyzed, and the results were shown in the following table:

Model	R	R^2	$\overline{R^2}$	F	Sig.	β	t	Sig.
Constant	0.116	0.13	-0.052	0.205	0.657	62.962	5.466	0.000
Residence						-3.237	-0.452	0.657

The table above shows that the regression model is insignificant and that the percentage of interpreting the analysis results correctly is 13%. The type of student housing does not affect the level of emotional intelligence among female students in the first study stage.

3.4. First level/ Females / General Intelligence IQ

The data of female students in the first stage of study in the general intelligence test was analyzed, and the results were shown in the following table:

Model	R	R^2	$\overline{R^2}$	F	Sig.	β	t	Sig.
Constant	0.385	0.148	0.092	2.616	0.127	8.061	2.082	0.55
Residence						3.890	1.617	0.127

The table above shows that the regression model is not significant and that the percentage of interpreting the analysis results correctly is 14%. As for the type of student's residence, it does not have a significant effect on the general intelligence quotient of female students in the first stage of study.

3.5. Second level/ Males / Emotional Intelligence EQ

The data of the male students in the second academic stage in the emotional intelligence test was analyzed, and the results were shown in the following table:

Model	R	R^2	$\overline{R^2}$	F	Sig.	β	t	Sig.
Constant	0.448	0.201	0.068	1.509	0.265	41.609	2.237	0.067
Residence						11.609	1.228	0.265

The table above shows that the regression model is not significant and that the percentage of interpreting the analysis results correctly is 20%. As for the type of student's residence, it does not significantly affect the percentage of emotional intelligence among male students in the second stage of study.

3.6. Second level/ Males / General Intelligence IQ

The data of male students in the second academic stage in the general intelligence test was analyzed, and the results were shown in the following table:

Model	R	R^2	$\overline{R^2}$	F	Sig.	β	t	Sig.
Constant	0.524	0.274	0.153	2.268	0.183	47.217	3.693	0.010
Residence						-9.783	-1.506	0.183

The table above shows that the regression model is not significant and that the percentage of interpreting the analysis results correctly is 27%. The type of student housing does not have a significant impact on the general intelligence quotient of second-year students.

3.7. Second level/ Females / Emotional Intelligence EQ

The data of female students in the second academic stage in the emotional intelligence test was analyzed, and the results were shown in the following table:

Model	R	R^2	$\overline{R^2}$	F	Sig.	β	t	Sig.
Constant	0.300	0.090	-0.001	0.992	0.343	72.000	5.609	0.000
Residence						-9.667	-0.996	0.343

The table above shows that the regression model is not significant. The type of student housing does not have a significant impact on the level of emotional intelligence among second-year female students.

3.8. Second level/ Females / General Intelligence IQ

The data of female students in the second academic stage in the general intelligence test was analyzed, and the results were shown in the following table:

Model	R	R^2	$\overline{R^2}$	F	Sig.	β	t	Sig.
Constant	0.117	0.014	-0.085	0.139	0.717	27.000	2.281	0.046
Residence						3.333	0.373	0.717

The table above shows that the regression model is not significant and that the percentage of interpreting the analysis results correctly is 1%. As for the type of student housing, it does not significantly affect the general intelligence quotient of female students in the second stage of study.

3.9. Third level/ Males / Emotional Intelligence EQ

The data of male students in the third academic stage in the emotional intelligence test was analyzed, and the results were shown in the following table:

Model	R	R^2	$\overline{R^2}$	F	Sig.	β	t	Sig.
Constant	0.083	0.007	-0.083	0.076	0.787	61.694	8.050	0.000
Residence						1.528	0.276	0.787

The table above shows that the regression model is not significant and that the percentage of interpreting the analysis results correctly is very small. The type of student housing does not have a significant impact on the level of emotional intelligence among male students in the third stage of study.

3.10. Third level/ Males / General Intelligence IQ

The data of male students in the third academic stage in the general intelligence test was analyzed, and the results were shown in the following table:

Model	R	R^2	$\overline{R^2}$	F	Sig.	β	t	Sig.
Constant	0.559	0.312	0.250	4.998	0.047	58.278	6.529	0.000
Residence						-14.389	-2.236	0.047

The table above shows the importance of the regression model and the percentage of correctly interpreting the analysis results is 31%. The type of student housing does not have a significant impact on the general intelligence quotient of third-year students.

3.11. Third level/ Females / Emotional Intelligence EQ

The data of female students in the third academic stage in the emotional intelligence test was analyzed, and the results were shown in the following table:

Model	R	R^2	$\overline{R^2}$	F	Sig.	β	t	Sig.
Constant	0.121	0.015	-	0.265	0.613	66.339	5.723	0.000
Residence			0.040			-4.391	-0.515	0.613

The table above shows the importance of the regression model and the percentage of correctly interpreting the analysis results is 1%. The type of student housing does not have a significant impact on the level of emotional intelligence among third-year female students.

3.12. Third level/ Females / General Intelligence IQ

The data of female students in the third academic stage in the general intelligence test was analyzed, and the results were shown in the following table:

Model	R	R^2	$\overline{R^2}$	F	Sig.	β	t	Sig.

Constant	0.154	0.024	-0.030	0.439	0.516	38.435	5.128	0.000
Residence						3.652	0.663	0.516

The table above shows that the regression model is not significant and that the percentage of interpreting the analysis results correctly is 2%. The type of student housing does not have a significant impact on the general intelligence quotient of third-year female students.

3.13. Fourth level/ Males / Emotional Intelligence EQ

The data of male students in the fourth academic stage in the emotional intelligence test was analyzed, and the results were shown in the following table:

Model	R	R^2	$\overline{R^2}$	F	Sig.	β	t	Sig.
Constant	0.523	0.273	0.225	5.642	0.031	80.883	7.900	0.000
Residence						-12.723	-2.375	0.031

The table above shows the importance of the regression model and the percentage of correctly interpreting the analysis results is 27%. The type of student housing does not have a significant impact on the level of emotional intelligence among male students in the fourth stage of study.

3.14. Fourth level/ Males / General Intelligence IQ

The data of male students in the fourth academic stage in the general intelligence test was analyzed, and the results were shown in the following table:

Model	R	R^2	$\overline{R^2}$	F	Sig.	β	t	Sig.
Constant	0.052	0.003	-0.064	0.040	0.844	22.338	3.470	0.003
Residence						0.675	0.200	0.844

The table above shows the importance of the regression model and that the percentage of correctly interpreting the analysis results is very low. The type of student housing does not have a significant impact on the general intelligence quotient of fourth-year students.

3.15. Fourth level/ Females / Emotional Intelligence EQ

The data of female students in the fourth academic stage in the emotional intelligence test was analyzed, and the results were shown in the following table:

Model	R	R^2	$\overline{R^2}$	F	Sig.	β	t	Sig.
Constant	0.200	0.040	-0.002	0.955	0.339	63.490	12.612	0.000
Residence						-3.150	-0.977	0.339

The table above shows that the regression model is not significant and that the percentage of interpreting the analysis results correctly is 4%. The type of student housing has a very small effect on the level of emotional intelligence among fourth-year female students.

3.16. Fourth level/ Females / General Intelligence IQ

The data of female students in the fourth academic stage in the general intelligence test was analyzed, and the results were shown in the following table:

Model	R	R^2	$\overline{R^2}$	F	Sig.	β	t	Sig.

Constant	0.252	0.064	0.023	1.562	0.224	25.840	6.080	0.000
Residence						-3.400	-1.250	0.224

The table above shows that the regression model is not significant and that the percentage of interpreting the analysis results correctly is 6%. The type of student housing does not have a significant impact on the general intelligence quotient of fourth-year female students.

4. Conclusion

We conclude from the above that there is no significant effect of the type of housing of university students, specifically students of the Mathematics Department, on the scores of the general intelligence and emotional intelligence tests for all students, male and female, and for all four academic levels.
