



DATA ANALYSIS USING R: IMPACT OF ROLE MODEL ON ACADEMIC PERFORMANCE AND THE PERSPECTIVE OF POLISH STUDENTS ON IT

Computer Science

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ABSTRACT

BACKGROUND: Research has shown the power of having a role model. For the academic year 2017-2018, students of the Poviast School Complex in Lopuszno, Poland were part of a Project and the impact of Role model on academics of them was studied.

OBJECTIVE: To explore the perspective of students towards the role of Role Model in academics.

METHODOLOGY: The analysis was carried out in R. studio and its careful study revealed some interesting results.

RESULTS: The students who don't have a role model are the ones with the most penurious academic performance and the analysis registered from the questionnaires showed that the students responded very positively to the impact of having a role model in academics.

CONCLUSIONS: The students responded vastly conclusively to the positive role of Role models and only 12% of the students thought that to have a role model has no influence on academic performance.

KEYWORDS

R, Data Analysis, Role Model, Academic performance

1. INTRODUCTION

A Role model may lead to an update of beliefs about what can be achieved by similar people resulting in changes in behavior [1]. Research has shown the power of female role models [2] and of male role models [3]. Role models types typically include parents and other relatives, close friends, acquainted and unacquainted professionals, and celebrities; boys are more likely to adopt role models in glamorized careers than are girls, and a small percentage of youth generally indicate having no role models [4]. The objective of this study is to explore Polish school students' perspective towards the role of role model in academic success. The analysis was performed in the Poviast School Complex in Lopuszno, Kielce, Poland. Study of the effects of role model on the academics of students aged 15-18 years was done. R and other analysis techniques were used for finding outcomes. Authentic data from a survey was carried out by Ishansh Gupta in the Poviast School Complex in Lopuszno. Polish people face a social problem which is lack of knowledge about own interests and career predisposition which was the reason of taking data from Kielce, Poland and the knowledge/research is vital for purpose of academic studies and further studies[5]. Moreover, the utilization of the new methods was selected as they enhance students' outlook on stats and students are more occupied in class ventures [6].

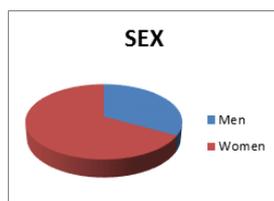
2. METHODOLOGY

Investigation of the relationship between the variables "Do you have a role model?", "Have you ever failed?" "Do you study consistently?" and "Is your academic percentage above 70?", of the students of Poviast School Complex in Lopuszno was carried out. R Studio- open-source integrated development environment for R, a programming language for statistical computing and graphics was used in order to calculate the percentages of the variables, the average and changes of variables, the t-test, charts and scrutinize the relation of the students' academic performance and having a role model. The scrutinization revealed that students who have don't have a role model, are the ones with the most penurious academic show. Then, questionnaires were provided to the students to know their views on the impact of the Role model on academic performance. The results from the analysis are in the coming sections.

2.1. The DESCRIPTIVE ANALYSIS

Out of 100 school students that were a part of the study, 33.00% were men and 67.00% were women (Table 1).

TABLE 1. Sex.



For the component "Having a role model has a positive influence on academic performance" 48.48% of the men and 19.40% of the woman responded, "Strong agree". 24.24% of the men and 46.26% of the women responded: "Agree". 12.12% of the men and 19.40% of the women responded: "Can't say". 12.12% of the men and 10.44% of the women responded: "Disagree" while 3.03% of the men and 4.47% of the women responded, "Strong disagree" (Table 2).

TABLE 2. Having A Role Model Has An Influence On Academic Performance.

	Men		Women		Total	
	n	%	n	%	n	%
Strong agree	16	48.48	13	19.40	29	29
Agree	08	24.24	31	46.26	39	39
Strong disagree	01	3.03	03	4.47	04	4
Disagree	04	12.12	07	10.44	11	11
Can't say	04	12.12	13	19.40	07	7
Total	33	100	67	100	100	100

For the component "To have a role model has no influence on academic performance" 6.06% of the men and 4.47% of the woman responded, "Strongly agree". 9.09% of the men and 7.46% of the women responded: "Agree". 9.09% of the men and 5.97% of the women responded: "Can't say". 36.36% of the men and 25.37% of the women responded: "disagree" while 39.39% of the men and 56.71% of the women responded, "Strongly disagree" (Table 3).

Table 3. To Have A Role Model Has No Influence On Academic Performance

	Men		Women		Total	
	n	%	n	%	n	%
Strong agree	02	6.06	03	4.47	04	4
Agree	03	9.09	05	7.46	08	8
Strong disagree	13	39.39	38	56.71	52	52
Disagree	12	36.36	17	25.37	19	19
Can't say	03	9.09	04	5.97	07	7
Total	33	100	67	100	100	100

For the component "Having a Role model is vital for academic success" 57.57% of the men and 34.32% of the woman responded, "Strong agree". 9.09% of the men and 35.82% of the women responded: "Agree". 24.24% of the men and 25.37% of the women responded: "Can't say". 3.03% of the men and 4.47% of the women responded: "Disagree" while 6.06% of the men and 0% of the women responded, "Strong disagree" (Table 4).

TABLE 4. Having a Role model is vital for academic success.

	Men		Women		Total	
	n	%	n	%	n	%
Strong agree	19	57.57	23	34.32	42	42
Agree	03	9.09	24	35.82	27	27

Strong Disagree	02	6.06	00	0	02	2
Disagree	01	3.03	03	4.47	04	4
Can't say	08	24.24	17	25.37	25	25
Total	33	100	67	100	100	100

For the component "I will have a role model in the future" 51.51% of the men and 28.35% of the woman responded, "Strong agree". 24.24% of the men and 47.76% of the women responded: "Agree". 18.18% of the men and 19.40% of the women responded: "Can't say". 6.06% of the men and 2.98% of the women responded: "Disagree" while 0% of the men and 1.49% of the women responded, "Strong Disagree" (Table 5).

TABLE 5. I will have a role model in the future.

	Men		Women		Total	
	n	%	n	%	n	%
Strong agree	17	51.51	19	28.35	36	36
Agree	08	24.24	32	47.76	40	40
Strong disagree	00	0	01	1.49	01	1
Disagree	02	6.06	02	2.98	04	4
Can't say	06	18.18	13	19.40	19	19
Total	33	100	67	100	100	100

3. CONCLUSION

Students of the Poviats School Complex in Lopuszno were analyzed for their views towards the role of Role model in academic performance. The students responded vastly conclusively to the positive role of Role models. 68% of the students responded "Agree" and "Strongly agree" for the component "Having a role model has an influence on academic performance". 69% of the students responded "Agree" and "Strongly agree" for the component "Having a Role model is vital for academic success" and 76% of the students responded "Agree" and "Strongly agree" for the component "I will have a role model in the future" whereas only 12% of the students responded "Agree" and "Strongly agree" for the component "To have a role model has no influence on academic performance".

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