

# An Overview on the Students' Perception in the Direction of Mathematics and Its Special Effects on the Academic Performance

Dr. Gopal Arora

SOBAS, Sanskriti University, Mathura, Uttar Pradesh, India

Email Id- drgopalarora.chem@sanskriti.edu.in

**ABSTRACT:** *On the world stage, language proficiency in mathematics and science is regarded as a need for success in contemporary life in Portugal. The education stakeholders must examine the attitudes of students about mathematics to seek long-term solutions to problems of poor presentation and a lack of attention in Mathematics. The perceptions of learners in mathematics might be a product of their early schooling experience. According to this research, mathematics is seen as the core pillar of technical and scientific knowledge and investigates students' views and impacts on mathematics in schools. This study analyses women's views on math and the limited proportions across ages and gender among students interested in mathematics throughout the six years from the first half of June, 2014 to 1 December, 2014. These investigations promote the creation of further research to comprehend and characterize different components of mathematics that might impact the students' performance. This will help build future action plans to encourage kids to study more math's in families, communities and schools.*

**KEYWORDS:** *Academic Performance, Male, Female, Mathematics, Perception.*

## 1. INTRODUCTION

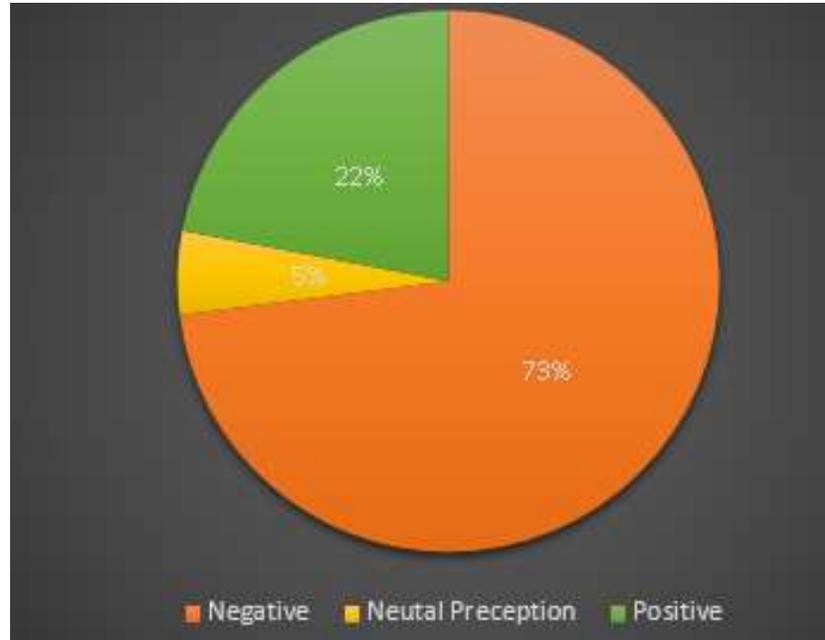
This study analyzed women's opinions on math, math 037 and the small proportions between ages and sex over the six-year period of the first half of June 2014 to 1 December 2014 for students interested in mathematics. These findings encourage additional research to understand and characterize distinct mathematical components that might have an influence on the performance of pupils. This will contribute to developing future action plans to encourage children to study more mathematics in families, communities and schools [1]. On the international arena, linguistic competence in mathematics and science is seen to be a precondition in Portugal for success in modern life. The current rules on Portuguese and Mathematical Language, tasks, curriculum, workload and assessment in the Ministry of Education, reflect these concerns since both cross-disciplines are disciplines and used in everyday life. The link between the attitudes of female students and their overall results in mathematics. Table 1 shows female students' perspectives on mathematics [2].

Furthermore, according to many surveys, most African nations place a higher value on mathematics than any other discipline. Despite Africans' high regard for mathematics, the Third Trends in Mathematics and Science Study (TIMSS) of 2004 found poor performance in the discipline in Ghana and other areas of the continent. The variety of elements that may affect Mathematics performance, on the other hand, demonstrates that good success in Mathematics is a consequence of many interconnected variables including individuals, families, and schools. Perceptions are considered as an important/key element to be taken into consideration when trying to analyze and explain variability in student performance in Mathematics by many studies.

**Table 1: Perceptions of the Female Student towards the Mathematic.**

Respondents	Frequency of Respondents
Negative	73
Positive	22
Neutral Perception	5

Mathematics is regarded by society as the bedrock of scientific and technical knowledge, which is prized by people all over the globe. It is seen to be a tool for political, social, scientific, and technological progress. Mathematics is significant in and of itself, regardless of how fundamental numeracy abilities are used. Mathematics has long been seen as the primary vehicle for the development of students' logical reasoning and higher-order cognitive abilities. The attitude of women in mathematics was significantly different from that of men. In terms of mathematics, the proportion of women (73%) was negative. The number of neutral women studying in Figure 1 was the lowest (5 percent) as compared to positive (22 percent) mathematical sentiments, as can be seen in the mathematical plot of the women's mathematical perceptions [3].

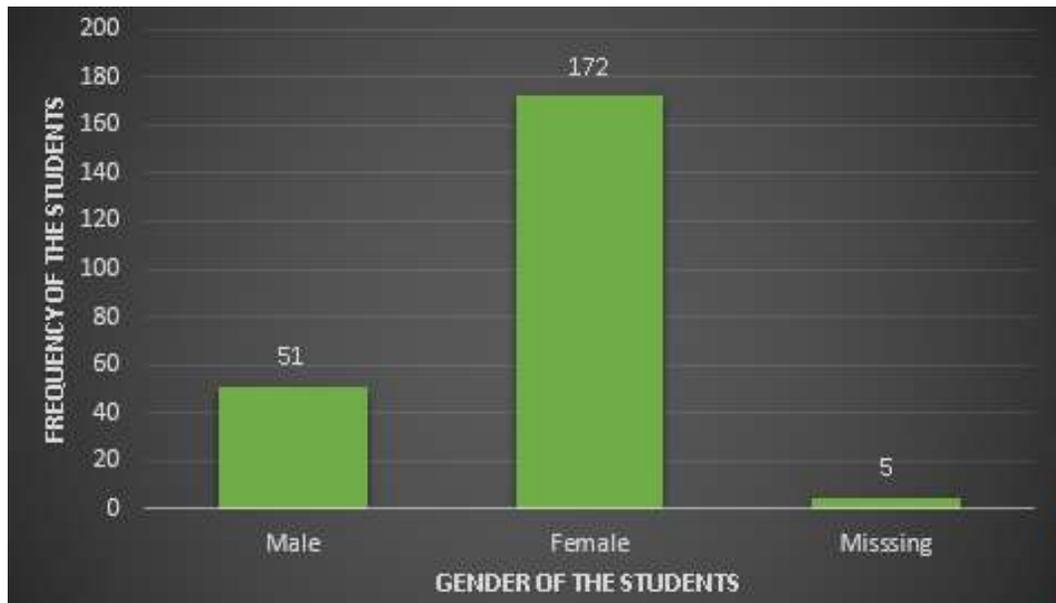


**Figure 1: Pie Chart of the Perception of the Female Student towards the Mathematic.**

Perception is a result of learning, according to the cell-assembly-phase-sequence hypothesis. As a result, being acquainted with everything new in the world aids in the formation of perception. According to the idea, early responses to a visual presentation (exposition) give birth to exploratory motor components, which play a critical part in the learning process by progressively building up activities of small groups of brain cells into a broader sequence of activity. The Commerce MDAB Pre-Diploma Programme, in UiTM Cawangan Kelantan [6], requires intensive maths in school. The findings of MAT037 during the first half of 2014 to 2014 are shown in Table 2 [4]. Mathematics is also important in a variety of other scientific disciplines, including physics, engineering, and statistics. Mathematics is widely regarded as one of the most important school subjects and a central aspect of the school curriculum in every society, as more Mathematics lessons are likely to be taught in schools and colleges around the world than any other subject, owing to its relevance and application. Figure 2 shows the similar gender ratio between students. The percentage of sex among the students is readily visible. The majority are women (172) and relatively few are male (51).

**Table 2: The Some Proportions of the Gender among Students.**

Genders of Students	Frequency
Male	51
Missing	5
Female	172

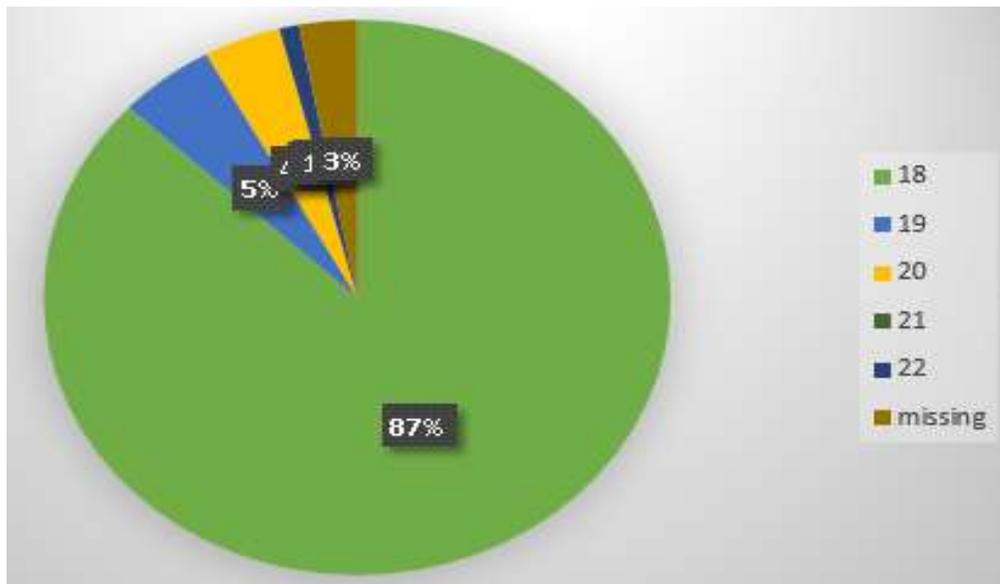


**Figure 2: Bar Graph of the Some Proportions of the Gender among Students.**

In particular, the connection between mathematics perception and success has long been a focus of study in the field of mathematics education. For example, characterizes the connection between the two as the result of a reciprocal effect, in which perceptions impact performance and performance influences perception. Figure 2 shows the comparable ratio of gender among students. The sex ratio among the students is easy to discern. The majority of them are women (172), although few are males (51) [5]. Indeed, the value of mathematics education in society is so great that universities often utilize it to screen secondary school students for admission to renowned science-based degree programs. Despite the advantages of studying mathematics, it is widely acknowledged that mathematics is difficult, obscure, and uninteresting to some individuals. Figure 3 shows the diagram for students with an interest in mathematics of few proportions of the ages. The diagram shows clearly that among mathematics students, the proportions for the ages are 18 years old [6].

**Table 3: The few Proportions of the Ages among the Students who have Interest in Mathematics.**

Age of Students	Value in Percentage
18	87
19	5
20	4
21	0
22	1
missing	3

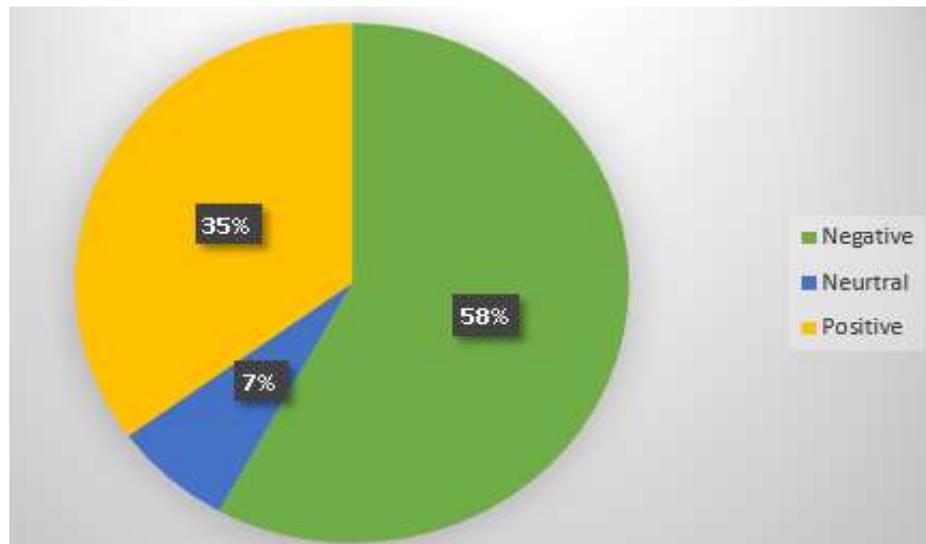


**Figure 3: Pie Chart of the few Proportions of the Ages among the Students who have Interest in Mathematics.**

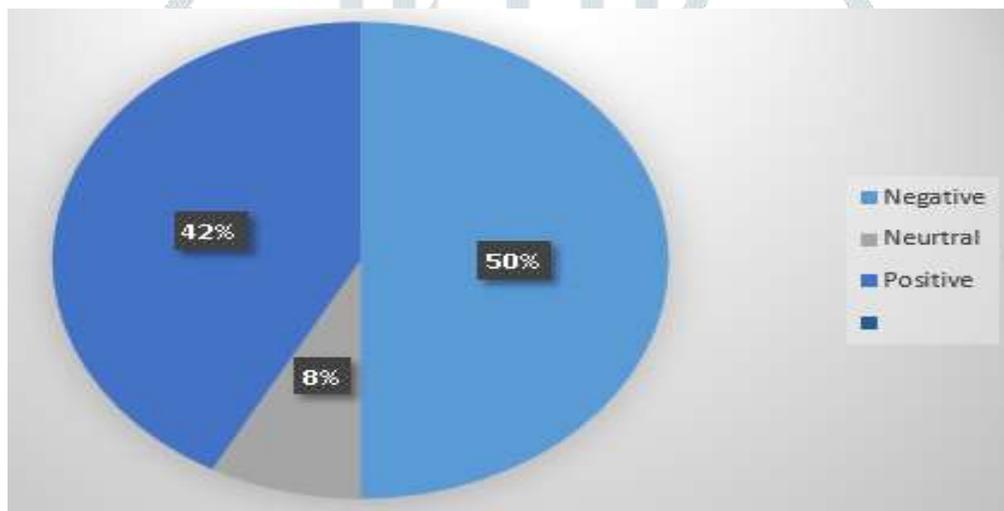
As a consequence, some students see Mathematics as their Waterloo, and as a result, they do badly in the subject. Both Mathematics educators and mathematicians have long been interested in these attitudes toward mathematics and mathematics learning, as well as their implications for mathematics teaching. They go on to say that, more than any other factor, pupils' low performance in mathematics is mostly due to their perspective. Mathematical underachievement among students is no longer simply a problem for certain nations, but has evolved into a worldwide issue. Table 4 illustrates the impact of the negative, neutral and positive types of education on the perspective of mathematics, such as co-education, co-educational internships, etc. [7]. Although it is undeniable that mathematics plays an essential part in life, the majority of students find it very difficult to learn the many mathematical abilities and procedures that are necessary in their daily lives. The pie chart demonstrates the impact of school type on female students' perceptions of arithmetic. Figure 5 depicts the pie chart. This graph demonstrates that 58 per cent of the negative effect is the highest influence.

**Table 4: The Influence of Type of School on Perception of Female Students towards Mathematics.**

Type of Influence	Co-Educational Day	Co-Educational Boarding	Female Boarding
Negative	58	50	35
Neutral	7	8	7
Positive	35	42	58



**Figure 4: Pie Chart of the Influence of Type of School on Perception (co-educational day) of Female Students towards Mathematics.**



**Figure 5: The Influence of Type of School on Perception (co-educational boarding).**

On the world stage, competence in languages, science, and mathematics is regarded as a prerequisite for success in contemporary life in Portugal. Because these subjects are cross-curricular and used in everyday life, recent Ministry of Education guidelines on Mathematics and Portuguese Language curricula, tasks, evaluation, and workload reflect this concern. The graph shows the influence of the classroom on the views of arithmetic of female pupils. The pie chart is shown in Figure 5. This diagram shows that the maximum effect is 58% of the negative effect [8].

## 2. LITERATURE REVIEW

Various researchers are involved in studying and analyzing the issue of student perception of mathematics and its influence on academic achievement. Some of the following are given: Dissou A. L. Spangmose studies the influence of student views on their interest in mathematics is investigated using multivariate statistical methods. In the study, the influence and impacts of student insight on the student's mathematics notice were studied and predicted using multivariate methods. The questionnaire was the main technique used in research by Arturo et al. Students in the metropolitan Kumasi were picked from 3 SHS using a deliberate sampling technique as the sample size of the trial [9]. The results demonstrate that, despite the difficulties, the students have a good attitude towards mathematics and are thus essential because of their everyday usage. Both the relationship between students and the mathematical comprehension of the subject were inadequate and badly linked. S. Cassidy et al. analyses MDAB students' mathematical perception in three areas: student mathematicians' attitudes, the mathematics teacher's student views, and the peer's impact on the subject. The

study shows that mathematical themes are the most impactful of the lecturers' perspectives. A high-level in student attitudes is the perception that Mathematic is useful in one's own life [10].

### 3. DISCUSSION

This article examines the perspective of the student – mathematics and its impact on academic achievement. Math is considered by society to be the fundamental pillar of technical and scientific knowledge, and individuals throughout the world are highly valued. It is seen as an instrument for economic, political, technological and scientific progress. In essence, mathematics is essential, regardless of how basic numeracy is used. For a long time, mathematics has been viewed as the main vehicle for developing logical *raisonnement* and cognitive skills for children. In each culture, mathematics is commonly recognised as the once most significant subject of the school as well as the basic element of the prospectus of schools, because, because of its pertinence and application, it is more likely that the math classes are shown in universities as well as schools worldwide. This study also describes the female student's perspective of the mathematical and mat037 aspects of mathematics in the period of 1July 2014-December 2014, as well as the few proportionalities of the ages and gender in mathematics among students with a low age group. Intensive Math is a necessary subject at school in UiTM Cawangan Kelantan's Commerce MDAB pre diploma programme. This article also discussed the outcomes of MAT037 for the first half (June 2014 - December 2014).

### 4. CONCLUSION

This article concludes that the topic of mathematics is extremely essential to everyone and that learning rises every day. This research also finds that the mathematical mindset of women was quite different from male pupils. The percentage of women (73%) learners showed an adverse mathematical attitude. In the final examination data for the Commerce MDAB Pre diploma at UiTM, UiTM Cawangan Kelantan, the number of female students with a neutral attitude (5 per cent) compared to those with favorable sentiments of mathematics (22 per cent), and only nine percent failed. The sex of students. The gender ratio between students. The highest among them is females (172), of which very few are male (51), the largest impact of school type on women's perceptions of mathematics is 58. These findings urge further investigation to identify and characterise different variables that might affect the performance of students in mathematics. This will help to build future strategies to promote the growth of further mathematics among students, families, communities, and schools.

### REFERENCES

- [1] A. Mercer and I. B. Puddey, "Admission selection criteria as predictors of outcomes in an undergraduate medical course: A prospective study," *Med. Teach.*, 2011, doi: 10.3109/0142159X.2011.577123.
- [2] L. Sweeney and R. M. Rapee, "Social phobia," in *Anxiety Disorders in Children and Adolescents: Epidemiology, Risk Factors and Treatment*, 2013.
- [3] J. Li, H. Ye, Y. Tang, Z. Zhou, and X. Hu, "What are the effects of self-regulation phases and strategies for Chinese students? A meta-analysis of two decades research of the association between self-regulation and academic performance," *Frontiers in Psychology*. 2018, doi: 10.3389/fpsyg.2018.02434.
- [4] C. Patterson, "Business Briefs - Business Theory Made Simple," *Business*, 2010.
- [5] B. I. Ehikioya, "Corporate governance structure and firm performance in developing economies: Evidence from Nigeria," *Corp. Gov. Int. J. Bus. Soc.*, 2009, doi: 10.1108/14720700910964307.
- [6] M. F. Musso, E. Kyndt, E. C. Cascallar, and F. Dochy, "Predicting general academic performance and identifying the differential contribution of participating variables using artificial neural networks," *Front. Learn. Res.*, 2013, doi: 10.14786/flr.v1i1.13.
- [7] K. Scouller, "The influence of assessment method on students' learning approaches: Multiple choice question examination versus assignment essay," *High. Educ.*, 1998, doi: 10.1023/A:1003196224280.
- [8] R. Bachan and B. Reilly, "Is UK vice chancellor pay justified by university performance?," *Fisc. Stud.*, 2015, doi: 10.1111/j.1475-5890.2015.12045.x.
- [9] A. L. Spangmose *et al.*, "Academic performance in adolescents born after ART - A nationwide registry-based cohort study," *Hum. Reprod.*, 2017, doi: 10.1093/humrep/dew334.
- [10] S. Cassidy and P. Eachus, "Learning style, academic belief systems, self-report student proficiency and academic achievement in higher education," *Educ. Psychol.*, 2000, doi: 10.1080/713663740.