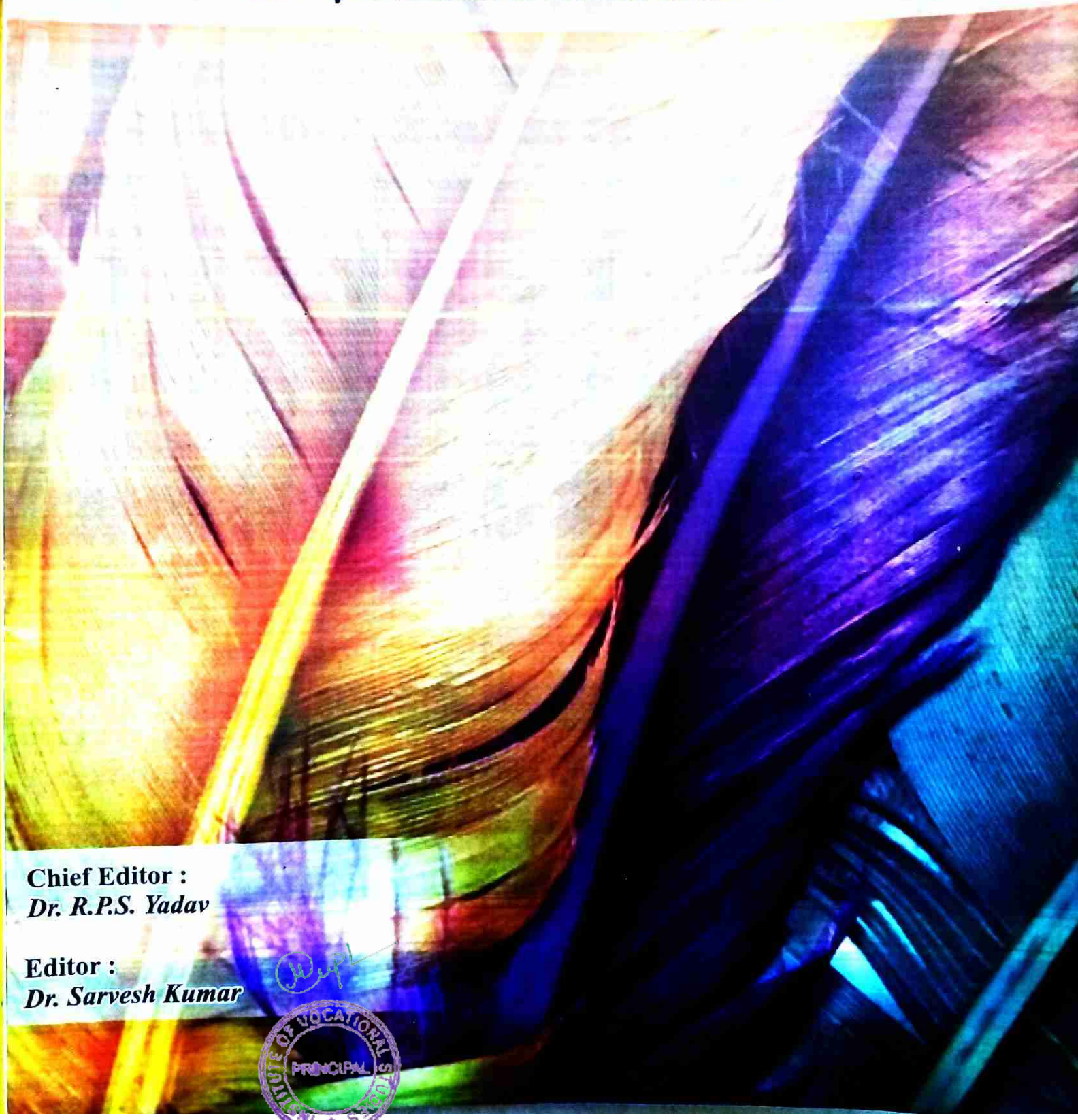
UGC Approved Journal No - 48728
ISSN 2249 - 8893

P.PUBLICATION

Annals of Multi-Disciplinary Research

A Quarterly International Peer Reviewed Refereed Research Journal



Chief Editor :
Dr. R.P.S. Yadav

Editor :
Dr. Sarvesh Kumar

INSTITUTE OF VOCATIONAL STUDIES
PRINCIPAL

UGC Approved Journal No – 48728
(IIJIF) Impact Factor - 6.034

ISSN 2249 - 8893

Annals of Multi-Disciplinary Research

A Quarterly International **Peer Reviewed** Refereed Research Journal

P. PUBLICATION

Volume 15 **Issue I** **March 2025**

Editor
Dr. Sarvesh Kumar
UPRTOU Allahabad

Chief Editor
Dr. R. P.S. Yadav
Incharge Director,
School of Humanities
UPRTOU Allahabad
www. annalsmdresearch.com

E-mail : annalsmdresearch@gmail.com www. annalsmdresearch.com

INSTITUTE OF VOCATIONAL STUDIES
PRINCIPAL

CONTENTS

- **Status of Mathematics subject in Secondary School of Delhi: Future Perspective and Challenges** **1-5**
  Dr. Parul Maheshwari, Associate Professor, Institute of Vocational Studies Affiliated to GGSIPU, FC-31, Press Enclave Road, Sheikh Sarai Ph-II, New Delhi-110017
  Ms. Priyanka Gupta, Assistant Professor, Institute of Vocational Studies Affiliated to GGSIPU, FC-31, Press Enclave Road, Sheikh Sarai Ph-II, New Delhi-110017
- **A study of ALP level of diabetic and non-diabetic Mellitus** **6-9**
  Dr. Md. Danish Equbal, Ph.D., Dept. of Bio-Chemistry , M.U., Bodh Gaya
- **A Review of Philosophy of the Constitution of India** **10-17**
  Dr. Harsh Singh, Teacher, Allen Career Institute, Kota, Rajasthan
- **"Clonal Propagation and Conservation of Medicinal Plant Rauvolfia Serpentina and its Economical Importance"** **18-20**
  Dr. Nidhi Kumari, Ph.D in Botany, Magadh University, Bodh Gaya
- **Study of Ecological Biodiversity and Physico-Chemical Properties of Sasta Oxbow Lake at Paroo Block in Muzaffarpur, Bihar** **21-28**
  Subodh Kumar, Research Scholar, University Department Zoology, B.R.A Bihar University, Muzaffarpur Bihar.
- **Comparative Study of River-Based Cultures: Narmada vs. Other Indian Rivers** **29-36**
  Idha Pathak, Researcher, History, Department of Humanities and liberal Arts, Rabindranath Tagore University, Bhopal
  Dr. Savitri Singh Parihar, Associate Professor, Department of Humanities and liberal Arts, Rabindranath Tagore University, Bhopal
- **Pt. Vasudev Dwivedi Shastri: An Emblem of Sanskritic Culture** **37-39**
  Dr. Raghvendra Mani Tiwari, Post Doctoral Fellow (ICSSR) Department of Sanskrit , Faculty of Arts, B.H.U
- **Effect Of Twelve Weeks Of Yoga Intervention On Kinaesthetic Perception On Residential School Girls** **40-46**
  Mrs. Niranjana Yadav, Research Scholar, Department of Psychology, LNIPE, Gwalior
  Prof. M.K. Singh, Professor, Department of Psychology, LNIPE, Gwalior
- **The Role of Artificial Intelligence in Mitigating Teacher Freezing** **47-55**
  Priyanka Joshi, Research Scholar (JRF), Department of Education, Chaudhary Charan Singh University, Meerut

INSTITUTE OF VOCATIONAL STUDIES PRINCIPAL

- **Impact of Workplace Stress and Coping Mechanisms on Pre-Primary Teachers**
  Khushboo Upadhyay, Research Scholar, FBAC (Faculty of Business Administration & Commerce), Mandasur University, (M.P.)
  Dr. Pallavi Mane, Associate Professor, FBAC (Faculty of Business Administration & Commerce), Mandasur University, (M.P.)

- **Transformation in the faculties of HEIs for their critical role as Knowledge partners in the Entrepreneurial Journey of India** 60-
  Anil Kumar, Research Scholar, School Of Management Studies, Uttar Pradesh Rajarshi Tandon Open University, Shantipuram, Prayagraj
  Dr. Gyan Prakash Yadav, Associate Professor School Of Management Studies Uttar Pradesh Rajarshi Tandon Open University, Shantipuram, Prayagraj

- **The Role of Education in Reducing Income Inequality** 67-7
  Dr. Sunita Kumari, Guest Teacher, Economics, J.N. College, Nehara, Lalit Narayan Mithila University, Kameshawar Nagar, Darbhanga

- **The Invisible Threat: Health Impacts of Air Pollution in Urban Populations in Bihar** 71-76
  Dr. Anil kumar Bharti, Assistant Professor (GT) Dept. Of Zoology Sub-divisional Govt. Degree College Benipur, Darbhanga

INSTITUTE OF EDUCATIONAL STUDIES ★ PRINCIPAL

Status of Mathematics subject in Secondary School of Delhi: Future Perspective and Challenges

*Dr. Parul Maheshwari**
Ms. Priyanka Gupta ***

The study of numbers, amount, and space is known as Mathematics. It can be applied to other fields like Physics and Engineering or it can be studied as abstract ideas known as pure Mathematics. It entails applying formulae, symbols, and logical reasoning to the study of structures, patterns, and relationships. It is observed over the past few years that students are not willing to studying Mathematics as the number of students in pre service teacher education programmes with Teaching of Mathematics are declining over the years. To look for probable reasons of not choosing Mathematics at Senior Secondary and higher studies, researchers have undergone a research study in the schools of Delhi city. Students of secondary school were asked to fill a questionnaire containing few questions. The results shows that there is not much difference between the number of students choosing Mathematics after class 10 and students not selecting Mathematics as a subject after class 10^{th}. Therefore the data also reveals that fear of Mathematics is main reason for students not selecting and studying Mathematics at secondary level.

Key Words: Status of Mathematics, Secondary School, Future Perspective, Challenges Introduction

The study of numbers, amount, and space are known as Mathematics. It can be applied to other fields like Physics and Engineering or it can be studied as abstract ideas known as pure Mathematics. It entails applying formulae, symbols, and logical reasoning to the study of structures, patterns, and relationships. Mathematics is considered to abstract and complex which requires strong foundation in earlier concepts to understand the higher and more advanced topics of Mathematics.

Mathematics can be challenging to study but at the same time it is very valuable and offers deep insights into the real world. Proficiency in Mathematics opens door to many careers.

Over the few past years, the students choosing mathematics after class 10^{th} have reduced drastically.

The National Policy on Education 1986 went further: Mathematics should be visualized as the vehicle to train a child to think, reason, analyse and to articulate logically. Apart from being a specific subject, it should be treated as a concomitant to any subject involving analysis and reasoning.

NCF 2005 stated that one of the primary goals of learning mathematics should be mathematisation of child's thought process. It is stated in NCF 2005 that children should enjoy mathematics and learn important maths. It clearly mentioned that fear of Mathematics should be completely removed through our improved ways of teaching and learning.

---

* Associate Professor, Institute of Vocational Studies Affiliated to GGSIPU, FC-31, Press Enclave Road, Sheikh Sarai Ph-II, New Delhi-110017

** Assistant Professor, Institute of Vocational Studies Affiliated to GGSIPU, FC-31, Press Enclave Road, Sheikh Sarai Ph-II, New Delhi-110017

INSTITUTE OF VOCATIONAL STUDIES ★ PRINCIPAL

Then what went wrong in our efforts that students are leaving the subject and not willing to study in higher classes. There can be many reasons for students not willing to Mathematics.

Student's attitude towards mathematics could be influenced by many different factors, including gender. For example, research has shown that attitude toward mathematics is more negative among girls than boys (Prendergast n Hongning, 2016; Frost et al., 1994), or that attitude seems to shift from positive to negative while students' progress during their scholarly years (McLeod, 1994). Other researchers like Haladyna et al., (1983) have found that a teacher's quality of instruction and enhancement and motivation of students is related to their attitude.

There are many factors that have an influence on how we learn. Some of these factors are not related to an individual capacity to retain information or memorize a concept, but rather to the many variables surrounding the process of learning and teaching (Walberg, 1982). In the following paragraphs some of the factors and approaches are addressed that have guided this study, particularly the ones related to the role of teachers and student's affect (i.e., emotions, belief, attitude and self-confident).

Belief in Mathematics Self confidence

Within the field of mathematics, self-confidence pertains to the way in which learners—that is, students—view their own competence in the subject (Adelson n McCoach, 2011; Hannula et al., 2004). Self-confidence is one of the most important factors influencing students' learning acquisition as well as their performance and accomplishment, according to Hannula et al. Studies by Van der Bergh (2013) and Mutodi and Ngirande (2014), which discovered that students with a high degree of self-confidence firmly think they have the ability and abilities to excel in mathematics, lend credence to these beliefs. Students' self-assurance in their mathematical abilities is important because it gives them the strength to face their anxieties about performing below expectations.

Teacher's role in motivating students to learn Mathematics

When it comes to inspiring, involving, and motivating students to study, participate actively in class, and perform well, teachers are crucial and play a significant role. In the dynamic process of teaching and learning, it is essential that both teachers and students are motivated (Anderman et al., 2011).

Students need to believe that the material they are learning in the classroom is important and has application to real-world situations. Students frequently voice complaints on the value of certain subjects, such as chemistry, science, or maths. However, among other factors, a teacher's actions, the nature of their interactions with students, and the way they prepare, advise, talk to, and engage with them all have a significant impact on classroom learning and how students acquire knowledge (Ball n Forzani, 2011).

Emotions and Mathematics

Emotions have been shown to impact and influence students' learning and achievement in mathematics (Schukajlow et al., 2017). While anxiety has been extensively studied in connection with mathematics, researchers are now concentrating on the role emotions play in the teaching and learning process (Chang n Beilock, 2016).

For example, Pekrun et al. (2017) studied the connection between emotions and achievement throughout the course of a long-term study with secondary students. Researchers discovered a correlation between students' emotional states (be they good or negative) and their performance and accomplishment levels, concluding that higher levels of pleasant emotions are associated with better maths scores.

In a survey conducted by 'cue math', in 2021 found that 82N of the students from class 7 to 10th fear Mathematics. Only 1 in 10 students are confident about their Maths ability. The survey explored the key factors spread across perception, performance and confidence for Mathematics. With a sample size of 1,600 non - Cue math students, the survey showed a rising disconnect between students and their learning of Mathematics. There are several reasons for disconnect, the core being the redundancy of conventional teaching.

Need and Significance for the Study:

The review of literature shows lack of research in this area. Teaching profession requires well qualified and trained teachers. The teachers should be well versed with the concepts of Mathematics. Conceptual knowledge requires zeal to study and positive attitude towards the subject. Mathematics teachers have to create positive and comfortable environment for learning to happen smoothly. Over the past few years it is seen that population opting for Mathematics subject has declined. To find out the probable reason for declining enrolment of students in pre service teaching course for teaching of mathematics, this research was conducted. The study has implications for the pre service teachers, teacher-educators, policy makers and curriculum developers to improve their attitude towards teaching of mathematics and make changes or innovations in their planning, teaching strategies, evaluation process and teacher training programmes.

Operational Definition:

Title: Status of Mathematics subject in Secondary School of Delhi: Future Perspective and Challenges Status of Mathematics: Do students choose Mathematics subject after class 10th or not Secondary School: Secondary school refer to Government and Private Schools of Delhi Future Perspective: What type of possibilities do children think will come from Mathematics in the future? Challenges: Difficulties in studying Mathematics and lack of interest in studying Mathematics

Objectives of the study This study was conducted to

- Find out the average number of students choosing Mathematics after class 10th.
- Find the probable reasons of students not willing to study Mathematics after class 10th.

Importance and relevance of the study

- The research will help in forming the future of course of action to improve the status of mathematics.
- The study will highlight the major factors responsible for the current state of
- Mathematics in schools.
- Necessary changes required in current curriculum of Mathematics.
- It will help in bringing the further areas of research required in Mathematics.
- To find out the probable reason of

Research Design: The Present study used survey method.

Population:

Population for the study was all Class 11th and 12th students studying in Government and Private secondary schools of Delhi city.

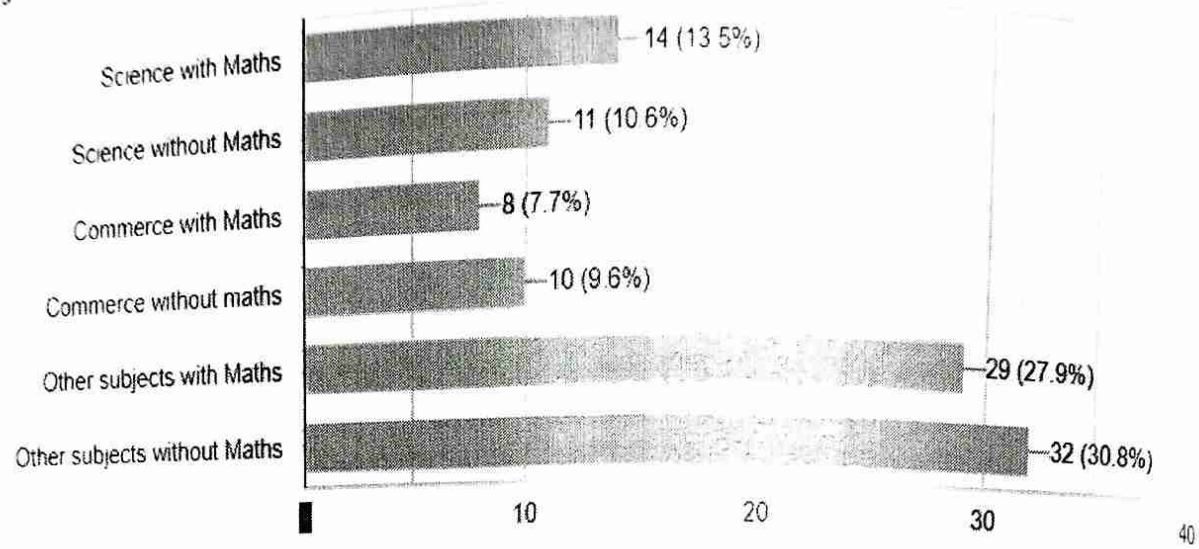
Sample: Purposive method was used. Sample consists of total 104 students studying in Government and Private Higher Secondary Schools of Delhi.

Tool for the Study: Survey was conducted through a self-made questionnaire on "Google Form".

INSTITUTE OF EDUCATIONAL STUDIES PRINCIPAL

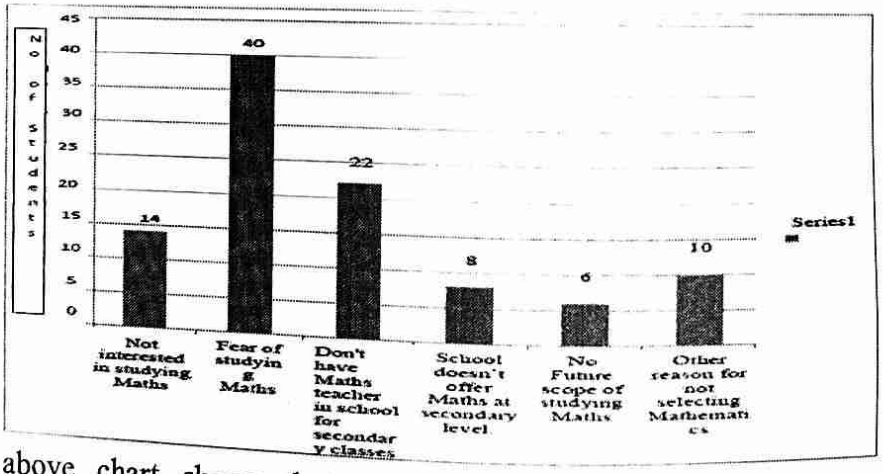
Findings

Subject Combinations



The above the chart shows the combination of subjects choosen by students in class 11th. The chart clearly shows that out of 104 students 53 students have not selected Mathematics as a subject in class 11th. 11 students have selected science without Mathematics, 10 have selected Commerce without Mathematics and 32 have selected other subjects without Mathematics.

If you don't have Maths as your subject, then what is the reason of not choosing Maths in class 11th?



The above chart shows that probable reason of students for not selecting Mathematics as one of the subject in senior secondary classes. 14N of the students are not interested in studying Mathematics at the senior secondary classes, 40N fear studying Mathematics and 22N students don't have Mathematics teacher in school for secondary classes. Schools of 8N students don't offer Mathematics at secondary level. 10N of the students had other reason for not selecting Mathematics at secondary level.

Interpretation:

The study reveals that there is not much difference in students selecting Mathematics at secondary level and students not selecting Mathematics at secondary level. This means that Mathematics is equally in demand as other subjects. But the data also reveals that there

INSTITUTE OF VOCATIONAL STUDIES ★ PRINCIPAL

is equal number of students who doesn't want to study Mathematics further after class 10th. The data carries one highlighting result that 40N of the students have fear in studying Mathematics after class 10 th and 14N of the students are not interested in studying Mathematics at the senior secondary level.

Implication:

The study has following implication for curriculum developers, educationists and training institutions.

- Rethink and redesign the curriculum of Mathematics at middle level.
- Create fearless environment for studying Mathematics.
- Encourage students to engage in Mathematics learning in a fearless environment.
- Encourage students to study Mathematics at the senior secondary level.
- Develop interesting teaching strategies to transact the curriculum in a more creative and innovative way
- Focus should be on transacting curriculum in more engaging manners so that students feel connected with the subject.

References

- htt ps:/ /www.indi atoda y.in/ educati on -toda y/l atest -studi es/s tor y/82 -students -classes -7- retrieved on 3.11.24
- to-10-are -fearful -of-math-surve y-1827619-2021-07-13 retrieved on 3.11.24
- htt ps:/ /files.eric.ed.gov/f ull tex t/EJ 1327942.pdf retrieved on 3.11.24
- NEP 2020
- NCF 2005
- Gupta. S, Maheshwari. P (2019) A study of the impact of high and low level school environment on the scholastic achievement of students , Jigyasa ISSN No 0974-7648

***

