

## **WHY STUDENTS FAIL IN MATHEMATICS? HOW TO MAKE IT INTERESTING?**

**Namesh Kumar Kharwal, Ph. D.**

*CT College of Education, Jalandhar, [nameshg@yahoo.co.in](mailto:nameshg@yahoo.co.in)*

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### **Abstract**

*Number of innovative ideas and steps we can apply to help the weak students in mathematics to deal with anxiety, peer pressure, and self-doubt etc. The student in question will be able to improve his performance gradually with time. Parents can appoint mentors who will be able to give personalized and individualized attention. Proper guidance and regular practice will turn the conditions in the favor of the student. Together you can help your children overcome their fears and make them confident about the subject. The biggest challenge for any teacher is to seek each student's attention and conveying ideas effectively that create a lasting impression. As a teacher, to tackle this challenge effectively, you should implement innovative ideas that make the classroom experiences much more enjoyable for your students. So here are different innovative ideas that will help you rejuvenate your teaching methods and make your teaching more interesting.*



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### **Introduction**

In the past few decades, we have developed a better understanding not only of how child learns, but also of how to teach – and how to educate teachers to teach. But, if we examine carefully, one cannot deny that still there is a negative trends. Why should any student be poor in any subject? Especially when the subject deals with logic and reasoning. We are going to discuss significant reasons as to why students fail in Mathematics.

### **Attitude towards Learning the Subject**

Everything depends on one's attitude towards the subject. The child mindset plays an important role. If a child thinks from the beginning that he will not be able to perform well in the subject, he will end up developing a phobia towards that. This in turn will affect his learning abilities and performance. The positive attitude can bring about a lot of difference.

### **Teaching Methods**

Mathematics should be taught in a way that is easy to comprehend. The method should be such that students can relate to it even after the school is over. If the method of teaching is proper, the child will be able to add, subtract, divide, and multiply without using a calculator. But often mathematics teachers rely on methods that are difficult to grasp. They appear all right on pen and paper. But when its application comes to the world outside the school, problems starts to arise.

### **Lack of Connection between the Subject and Students**

One of the reasons students fail in mathematics is they are unable to develop a connection between the subject and themselves. They treat the subject as something alien to them. Such students remain mentally absent from the mathematics class. This effects their learning ability. They cannot keep a connect between the previous class and the one that they are attending.

### **Self Doubts**

Peer pressure is another reason why students fail. They are unable to handle the pressure to perform at school. This along with a comparison with other good students leads to the rise of self-doubt. Once self-doubt sets in, it becomes difficult to recover from it. Eventually, the child's ability to perform well in mathematics is hampered serously. Students might not voice out but in reality, they are very scared of the subject. They look out for ways to avoid learning the subject.

### **Low Intelligence Quotient**

Many might not agree. But one cannot overlook the role one's Intelligence Quotient plays in learning mathematics. This area is kept under wraps because no one wants to accept that his or her child has low Intelligence Quotient. But the fact remains, some students do not have the ability to grasps numbers easily as others. Thus their low Intelligence Quotient affects their learning graph.

### **Attention Span**

Some students get easily distracted. They cannot remain attentive throughout the class. Their attention distracts and they stop paying any interest. When asked to solve a problem in class they fail and become the center of jokes. Parents and teachers should make sure that their child pays more attention in the class. Both the teachers and parents can use different teaching learning aids to make mathematics interesting.

### **Lack of Understanding/knowledge about Signs and Symbols**

Mathematics is a tricky subject. Especially when it comes to the signs and symbols. There are many who are not very good at it as well.

For a below average student in mathematics, the probability of getting confused between the different mathematical signs and symbols is high.

If the student fails to mark the degree sign in geometrical problems or the right unit after solving a problem, his/her marks are deducted. Knowing where to put what sign/symbol is an important part of learning mathematics.

### **Teacher Student Ratio**

Generally, classrooms have 20-25 students with a single teacher teaching the subject. This results in a bad teacher student ratio. The teacher teaching the topic fails to pay attention to every student. He has only a rough idea as to which student is good and which is below average.

Only after class tests, the teacher may get a clear idea of his students' abilities.

### **Many Mathematics Teachers are not well versed in the Subject**

This may appear as a little out of the box reason but it cannot be ignored completely. There are many teachers who do not have a deep knowledge of the subject. There are many teachers who perform well in mathematics but when asked to teach, they somehow are not up to the mark. Teaching is an art. Not everyone is well versed in it.

### **Accessible Textbooks**

There are a number of schools where the students cannot afford to buy the textbooks. If the textbook and pupil ratio is in order, it is not difficult to teach the subject. If the scenario is reversed, where the students have to depend on the school to access the textbooks, it will hamper the performance of the students.

All the above stated problems can be solved if detected at the right time. Parents and teachers need to make a joint effort in this regard. In the past two decades, we have developed a much better understanding not only of how a child learns mathematics, but also of how to teach mathematics and how to prepare teachers to teach mathematics. A list of teaching practices that we know work to support student learning includes posing challenging tasks that connect to a child's prior understandings and out of school experiences, providing opportunities for children to make sense of and talk about mathematics, and promoting the use of mental mathematics based on patterns in our number system. Yet it is also a challenging time to be a mathematics teacher because these teaching practices are not being used in most of schools. Further, there are many constraints limiting the use of these practices.

The biggest challenge for any teacher is to seek each student's attention and conveying ideas effectively that create a lasting impression. As a teacher, to tackle this

challenge effectively, you should implement innovative ideas that make the classroom experiences much more enjoyable for your students. So here are different innovative ideas that will help you rejuvenate your teaching methods and make your teaching more interesting.

### **Creative Teaching**

Take the help of tools to inculcate creativity. Use playful games or forms of visual exercises that will attract young minds and capture their interest. This is a time tested method to identify every young child's creative abilities and encourage their creativity. Bring creativity into all your subjects, like mathematics, science and history. Think of ways and means to develop their creative ideas.

Encourage different ideas and give them the freedom to explore

### **Audio & Video Tools**

Include audio visual materials to supplement textbooks during your sessions. These can be models, filmstrips, movies, pictures, graphics or other mind mapping and brain mapping tools. Such tools will help their imagination to develop and grow. These methods will not only develop their ability to listen but will also help them to understand the things better.

For example, you can use some oral materials, conduct live online discussions and play recordings of lectures. If you are tech-savvy there are also smart apps for preschoolers that you can use to create awesome slideshows and presentations.

### **Real-World Learning**

Infusing real-world experiences into your teaching will make teaching moments fresh, lively and enrich classroom teaching and learning. Relating and demonstrating by creating real life situations will make the material easy to understand and learn. It will boost their interest and get the child excited and involved.

### **Brainstorm**

Conduct brainstorming sessions in your classrooms. These sessions helps to get the creative juices flowing. When we have multiple brains focusing on one single idea, we surely get numerous ideas and will also involve everyone in the discussion. These sessions will be a great platform for children to voice their thoughts. Set some rules before you start. You conduct simple brainstorming or group brainstorming or paired brainstorming.

### **Classes outside the Classroom**

Some lessons are best learnt when taught outside of the classroom or school. Organize field trips that are relevant to the lessons or just simply take students outside of the classroom. Students will find fresh and excited. Without making much effort, they will learn what you teach them.

### **Storyboard Teaching**

Storyboarding is a great way to teach any subject which requires step by step memorization and visualization of highly conceptual ideas.

Teachers can use a storyboard to recreate a famous event. Such visually stimulating activities will ensure that even difficult ideas are easily put before the students easily. You can also encourage the use of storyboards as a form of communication.

### **Stimulating Classroom Environment**

A classroom environment that is well decorated, fun, and involvement will help stimulate a child's mind and will help to think and learn better.

Such a creative and stimulating environment help them explore and will motivate them to learn about the subject. Children, especially young ones cannot be assumed to sit all day and learn. An environment that positively impacts the children is beneficial for all. Schools associated with Early Years Foundation Stage will validate the fact that the learning environment has a major role in learning and development.

### **Welcome New Ideas**

An open minded attitude can help you to innovate and create new teaching methods. Though you might claim to be open-minded but its human nature to resist change of any type. Assess yourself and ensure that you will try out new ideas in the classroom.

### **Think About New Hobby**

Sometimes, a hectic schedule may affect your engagement in teaching. If it happens, its natural that you can take a break for a couple of hours and involve in some other activity that you are interested in. This will rejuvenate you and you can do your work with more passion and interest.

### **Work Together As a Team**

If everyone knows that the end result of the collaborative effort is always positive. Think about spending some quality time with your colleagues. Ask them to share their views and ideas on improving teaching methods; you will see that many of them will come up with interesting strategies.

So, collaborate and introduce innovative and creative teaching methods.

### **Puzzles and Games**

Learning becomes fun when puzzles and games are part of teaching and education. Children may not require conscious efforts when lessons are introduced to them through games and puzzles. Puzzles and games help children to think creatively and face challenges in enjoyable manner.

### **Start School Clubs**

Think about starting an after-school club. Being a teacher and educator you may not get ample time to work on interesting topics that you are passionate about. You can share your ideas and views and learn from others when you have school clubs and groups.

### **Refer to Books on Creativity**

To be a creative teacher you need to do some action research on creative ideas and techniques. There is a lot of creativity. Choose some of the best and start learning. It will help for your professional development as well.

### **Love What You Do**

You can give your best only when you love what you do. When you are not in stress you will be more creative and innovative. Loving your work will keep you relaxed and will give you room to experiment with new ideas.

### **Introduce Lessons like a Story**

Just think, why do we watch movies with interest? We like to watch movies because there is always an interesting story to keep us engaged during the time of watching.

All these measures will help us deal with anxiety, peer pressure, and self-doubt etc. The student in question will be able to improve his performance gradually with time. Parents can appoint mentors who will be able to give personalized and individualized attention. Proper guidance and regular practice will turn the conditions in the favor of the students. Together you can help your children overcome their fears and make them confident about the subject.

With even the Knowledge and Human Development Authority emphasizing to take measures for improving the quality of teaching and learning, these innovative and creative ideas are sure to make teaching and learning more effective, interesting and success.

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