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# INDIA SCHOOL NEWS

*The online school newspaper*

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### **How did you decide on making a career in education?**

I started my career in around 2000. It has been almost 19 years now. In my family there have been many teachers and I got inspired by them. One of my cousins is a Math teacher who was my main motivation. I have done my graduation and post-graduation, computer courses and PGDST – Post Graduate Diploma in Applied Statistics. Until now I haven't used much of what I have learned in my post-graduation; but now I want to use it for education industry. This is a statistical testing course that I intend to take up.

Talking about my teaching career, I started with small schools in Faridabad, close to Gurgaon. I am from Faridabad. In 2005, I joined my first regular school – Amity International School, Delhi. After 5 years of working with the CBSE curriculum – synchro-classes (those are classes where children are trained for IIT entrance exams alongside the CBSE curriculum) I switched to IB in 2011 when I joined GD Goenka Global School in Gurgaon.

That was my first IB school and I must tell you I was nervous, IB being entirely different from CBSE. I worked very hard, for around 6 months, to understand the IB system. Once I understood the system, I enjoyed the IB curriculum.

In 2014, I became an IB examiner. I am an examiner of Paper II and internal assessment exploration. I was there from 2011-2016. After that I joined The Shri Ram School, Gurugram. Ever since 2011, I have been with IB, and it has been an entirely different experience.

### **When you switched from CBSE to IB as a Math teacher what were your concerns?**

Talking about any curriculum, be it CBSE, IB or A Level, the content is same everywhere. The chapters and topics are the same, of course. The only difference is in the assessment.

Like in IB, they use technology. You are permitted to use calculators for some papers and for some you aren't. When I say calculators, it is graphical display calculator (GDC); not the normal one that we know of.

Prior to IB, I had this habit of solving all problems mentally. At that time, when I started, I used to solve questions without using GDC. When you use technology, you take less time to arrive at the answers. So, initially I used to write all over the board to explain a 2 marker, 3 marker and 4 marker. That was the transition time when I had to get comfortable with the use of technology and understood the need of the curriculum to set in the way it is and then I started enjoying being in IB.

When we are in the teaching profession, we get summer breaks. I feel personally that whether I get 30, 45, 50 or 60 days, I end up upgrading myself 70% of the time. I take the time to learn new things. I

spent almost 60 days to learn the whole system. This gave me the benefit and made me adjust within 6 months to imbibe and enjoy the new curriculum.

**For how many years were you associated with CBSE?**

I started with CBSE and was associated with it for almost 10 years, considering all the small-time schools also that I was a part of before joining a regular school in 2005.

**For how many years have you been associated with IB now?**

Almost 9 years now. I started my IB journey in 2011.

**What would your advice be to a young person who would like to shape his/her career as a Math teacher?**

In CBSE they only have one level of Math. They have a methodology in place. Everybody needs to opt for Math – whether you are a Commerce student, Science student or a Humanitarian student. Whereas, in IB, there are different levels of Math and students opt for Math as per their University age. If a person enters IB, they have to decide which level of Math he wants to teach.

Along with the content, there are so many other things the teacher needs to cater to in IB. You need to have a theoretical approach. When I say theoretical approach, there is something called extended essay wherein normally children write it out in 4000 words. But, if they write in Math using mathematical symbols and signs, it goes down in word count. So, technically if a person gets into an IB school without any other background, he/she may struggle with extended essay or exploration aspects and he/she will get less time to focus on the content.



You need to strengthen your teaching part. It is best to spend 2-3 years in CBSE/ICSE so that he/she is aware of all the teaching techniques. When I came to IB, I understood that I have to train students to take an examination. The weightage is 80% and general assessment carries 20%.

At the end, we have to work to excel at the 80% part because it forms your crux. That is why I feel you should be very strong in your teaching methodology before you head into an IB set up. Assessment can be understood at any point of time because like I told you in the beginning, the syllabus is more or less the same, everywhere.

**What is a good preparation for somebody who wants to become a Math teacher?**

First of all the person who aspires to teach should know the various teaching methods in depth. When you are teaching, you are bound to get bored with the same curriculum you deal with, within about 2 years.

What I do is I like to show something new each time. I try to get something wherein I can incorporate technology. I sometimes make some handouts. I always explore different ways to teach new concepts.

If a person aspires to become a teacher, he/she needs to have the patience to explore the whole world. That is an inherently important aspect to have from their college days itself. If during graduation days itself the aim is to be a teacher, then, right from that time they should explore various ways of teaching, communicating etc.

For example, I teach a topic called optimization, in which there is a question around a company that wants to make an optimized cylinder, where the height should be equal to the diameter. There is a very formal proof for this. I taught this concept 2-3 years ago in a direct format. After doing it that way it occurred to me that I could have used it to make students sensitive towards the environment, the consumer's pocket etc. So, I had to think differently.

Nowadays, when I teach this, I ask students to look for cylinders around their premises or in the market, which suits this style. And, we have found so many of them. Also, when you set students on an exploration mode they come back with a lot of observations and inferences. Math is the backbone of everything. So, you can create interest in it through various methods.

I believe that a person aspiring to be a teacher should start grooming himself/herself from graduation onwards. They need to look for every opportunity in and around his space where he can incorporate Mathematics.

I am not of the opinion that Math is a true science but it is a true social science. That is because you can do a lot of good for the society if you are good in Math. Earlier it was just statistics that was used to provide data using which we could analyse and perform better for the future. But, if you take the example of the calculus, you can think about the system wherein we can save lakes and the environment. We can incorporate Math in any topic. I always look for opportunities to find something different in almost every chapter.

**As the HOD, how would you work towards improving the Math department of an old school which is not doing very well?**

To improve a school's level of Mathematics, we need to create an interest in Math among the students. The students have to be involved in every type of activity that we do in class. It is not just that we have to make some project or something, but rather than teaching on the blackboard, we have to incorporate creative methods of teaching so as to invoke participation among the children.

What I feel is at a very basic level IV, V, VI and VII standards; we need to give challenging questions to the students at least once in a week so that students can try to work on it. This question should have the power of generating a discussion in the class – one which is not initiated by the teacher. If the students are involved at a good level, then definitely the Math level will be on the rise, for sure. In my school, I always tell my teachers that we need to work on basics and move from challenging path and then identify students who are very shy.

See, practically the first month is about settling down in the class. Every other time there can be a jumble up in the timetable, teachers sometimes get new students. So, I give them a month to know each of their students. After that they have to work with each of them based on their individual levels, such that each of their levels increases.

The other part is to tell and convince children that their competition is with themselves so that they get better each time no matter how others are doing. A child who is at 50% needs to target at raising his/her own percentage. That is their achievement. They don't have to compare their marks with anyone else. There is no need for a 70% student to compete and outdo a student who is doing a 90%. That is how I try getting students involved – taking the fear factor away and releasing them off peer pressure.

I suggest that children to be taken to the basketball ground etc., when being taught about measurements, etc. Students should be asked to measure different things, they should check for the area of the inner circle etc. These are the ways in which students are made to get involved and how their interest can be captured.

This is how things are conducted in our school and this is how I would advise other school teachers too. The more activities they come up with the easier it gets to pull up the level of Mathematics.

**What aspects of a teacher make you understand that they are bright?**

See, whatever ideas I suggest, the execution finally rests on the shoulders of the teacher. There is a difference between people who do it willingly and who do it just because I told them to. There is a difference in energy level, zeal, effectiveness and output in both. We can see that clearly.

There are people who are willing to do anything as soon as you suggest something. In fact they will give their inputs as well. There are people always in the department who are willing to do anything anytime and they also find ideas when I ask for their time to incorporate something. They squeeze out time to incorporate it and make things happen. I want to see that kind of willingness. We are there in the school from 8 to 3 or 3:30. One must be willing to work effectively during those hours.

If a teacher intends to grow in the organisation, they need to be willing to work after work hours as well or over the weekend also. They need to source some ideas to improve teaching or make teaching interesting.

**Is teaching an exhausting career?**

Normally, when I discuss I say that in our industry the raw material has a mind. In any other industries, the raw material doesn't have a mind of its own.

The advantage is that we get on-the-spot reflections. I am like a family to my students and that attitude fetches me a reflection at the end of my class. This is not just my case; there are so many others who bear testimony to this. And it is all taken positively.

If children ask for time to get adjusted to a concept, we try to facilitate it and try our best to improve the level of each student because like I mentioned earlier, we never promote competitions among students, the competition is with oneself.

**What are your future plans?**

When I entered IB, like I said, I worked hard for 6 months before I started enjoying this curriculum. I want to continue with teaching. I am not keen on administrative levels like being the Principal or the Vice Principal because I am at home with teaching. I love the exploration we do and the process of finding new ideas. I am very happy as a teacher because I am in touch with the students and I learn immensely from them.

Having said that, I propose to work on something from a data analyst's space in the interest of analysing the education in the state in various manners. To give you minor examples, sometimes you see schools getting ranked in the newspapers. I want to understand the basis of ranking schools. I see some schools ranked as number 1 in some states and then ranked as 10 in some others. I want to analyse and come to a consensus on this.

Another thing is – sometimes there are two judges judging a competition, and they give marks to, say, 10 participants who are part of the competition. Now, the ranking as per both judges will be different.

That means, when two people give marks to the same person, they judge differently. The judges are not in sync with each other. So, how can we decide whom to call to judge competitions? It should be people who are not much variant from each other in their marking. These are minor examples.

When I come across various scenarios like these, I have this urge to do my own data analysis. This is true for results, admission criteria, etc. I would like to analyse all this with the help of statistical tools. I have begun working on it and hopefully I will achieve this in a couple of years' time. This is another area I would like to explore. It will help me give my best inputs for what kind of curriculum suits certain children, etc.

### **Would all schools who offer IB work at the same level?**

When I say similar, every school showcases good infrastructure, facilities; the difference is in the teaching part. That is the game changer.

Technically, what I feel is that there is a crisis with respect to a few teachers all the time. The practicality of conducting a syllabus rests on the shoulders of a teacher. A person sometimes comes into the industry assuming that it is an 8-3 job and relaxation after that and that summer vacation is all about enjoyment etc.

But it is only teachers who think out of the box and begin enjoying the profession plus it becomes effective for the children. That way the organisation treads forward positively. When I talk about the teaching faculty in various schools, there is a gap because the school provides all the facilities. If the teacher doesn't see things positively, then nothing is of any use. The zeal of the school takes a downward plunge.



Sometimes, I observe deeply because I have worked as an HOD in my previous school as well. I have overheard teachers commenting about the need of such detailing, the need for some training programmes the school facilitates for them, etc.

When you are sitting through a training, for instance, it can be that out of 100 points that are being said, only 10 points may appear new for an experienced person. It is about looking at it either that you got to learn 10 new things or cribbing that 90 things were things you already knew.

If teachers are of the same healthy mindset in all schools, they all can be ranked equally.

### **Can a school's administration point of view make a difference to creating the right environment for good teachers to thrive in?**

I have worked with three big groups and many small groups. What I have seen is that in the present school, they follow the protocol. That is one of the best aspects.

For instance, if there is a complaint from the student's side, it needs to go to the teacher first. If the teacher cannot solve, the HOD should be notified, after which the coordinator can be involved, and likewise there should be an escalation process upwards.

Sometimes, parents are highly impatient. If something happens they directly mail the coordinator or the Principal. Imagine a complaint going to a Principal. He is a person in charge of the whole school. It