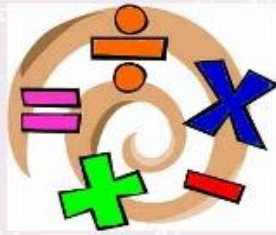


Our Journey With Math



- A mother's perspective as a fellow traveller

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grow with math

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Our Journey with math – Part 1

Learning is a never ending process and is a part of everyone's life. The *Joy of learning* is every child's very basic right. The learning experience one undergoes as a child forms the very basis for motivation to learn further.

A child having learning difficulties may find the learning frustrating. If the learning experience becomes painful and frustrating in the earlier days, the child loses the interest and motivation towards learning and hence attending school becomes a bitter task for them.

Raising such a child thus becomes a challenging one for the parent. Addressing the learning difficulty issues of the child at an early age thus becomes very important to prevent further demotivation happening in the child.

Since my child had learning difficulties, understanding and comprehending things were difficult for him with the way of teaching at school. He was totally unaware of what was happening in the school classroom. The kindergarten was managed with ease since most of the activities were done orally. The real struggle started when it came to writing. The struggle increased two, three folds when it came to *mathematics*. Right from writing the numeral and fitting it within the checked box of the notebook, the fight with math started.

We were totally unaware of what needs to be done for helping the child learn the way he understands. In the hunt of finding help, juggling from one to other we lost a lot of time that his primary education turned out to be a totally traumatic one with no sweet moments to recollect and relish.

By the time we came to know of **diksa Learning center**, my child was already in his 7th standard with the aversion and phobia for math strongly accumulated in his mind.

Though late, we feel fortunate and blessed to have Team Diksa which changed my child's whole perspective of Math. How much I wish, I had known about Diksa earlier, when my child was in his primary classes!!! His whole experience of math learning would have turned a joyous one and we could have avoided the whole lot of dreadful experiences he faced in his primary education phase.

If every child is able to reach out to Diksa at an earlier age for the math learning, the phobia of math would vanish from them. Team Diksa was instrumental in identifying and removing the struggles and challenges my child had in learning math. The credit of removing his math phobia and creating an interest towards the subject of mathematics goes to Team Diksa. I express my sincere thanks to Team Diksa for giving me an opportunity to share **“Our Journey with math”** here.

Journey continues..

Our Journey with math - Part 2

Math learning in the Primary Classes.

The first day of school life is an unforgettable moment in the lives of children and parents. Parents along with the child step into the school gate with beautiful dreams and expectations.

When unexpected turn of events happen and things go in contrast to their dreams and expectations, it takes some time for the parents to accept the reality. When I came to know that my child has learning difficulties and has to take up counseling and professional help, it was hard for me to take it. But, as I witnessed the struggles he underwent daily to do even the simple tasks at school, I understood clearly how crucial it is to take professional help to make his learning experience better.

As the counselors and educators we met explained us about his learning issues, it was all like Greek and Latin for me, but we believed that things will get smooth as days pass. Disappointingly, the struggles only increased as days passed.

Particularly with regards to math learning, my child had a very tough time. When it started with writing the numbers 1-10, 1-50 one by one, he was able to do it, but when backward counting, skip counting etc. were introduced he turned blank. Same way, he couldn't understand the concept of arranging numbers in Ascending and Descending order.

We thought drilling him and making him understand Big and Small, will help him to understand arrange numbers. The concept of Big and Small when explained using objects was understandable, but, how to explain the same with regards to numbers? Why is that understanding about big and small number not happening for him? We didn't have an answer.

Without understanding the concept of Big and Small in numbers, doing Addition, Subtraction sums was tough. The very basic knowledge that bigger number has to be written first from which the smaller number has to be subtracted was lacking while doing subtraction sums. So, for each and every sum given in the textbook, either his dad or I had to sit with him and help him with instructions to do the sums. How many ever times we drill and teach, he would make mistakes while doing Carry

over Addition and Borrowing Subtraction sums. Multiplication and Division sums made him feel all the more confused.

He had difficulty in understanding the place value and knowing what is ones, tens, hundreds in 2,3 digit numbers was tough for him. In this mindset the very sight of seeing a problem having numbers with 6,7 digits would give a shock for him and he would dodge or withdrew himself from doing the sums.

Sitting in the school classroom in a confused state, he was not able to clearly understand and write what was taught in the math class. Most of the days, his class work notebook would be blank and the remark "*Incomplete*" written in red ink became a regular happening. Everyday evening I had to contact his friends, to know what was taught in the class and make him complete the class work at home, which took a whole lot of time. The home work to be completed was kept pending and a lot of works were getting accumulated. He was in a state where he needed our help to do every sum in the book, to complete his class work and home work.

Since he took lot of time to complete his works, the pace in which he went was in no way near the pace his peers were. So, he couldn't meet the demands and expectations of the school. He was lagging behind in understanding and completion of his works. With regards to exams in the primary classes, most of the questions would be unanswered with just the question number alone written in the paper. For the few sums answered, the final answer would be wrong due to the errors he makes in addition/subtraction or copying the number correctly from the question paper. Getting a pass mark in the math exam was turning a question mark for him.

It made us think !!

If he is facing such struggle while in 2nd,3rd class, what will happen to him when the syllabus increases many folds in the higher classes? How will he handle that when he is lacking understanding in the basic concepts?? For such huge syllabus that will come in the higher grades, sitting with him and helping him for each and every sum - Is that feasible??? As a parent, I was able to understand that it's definitely not possible, and it's not good for him too to grow up being dependent.

It made us think and the instances that happened further, made us look out for help to improve his math learning.

Journey continues...

Our Journey with math - Part 3

What made us realize my child needs help for Math learning

"When the going gets tough, the tough gets going" is what people say. But, for my child, "The going got tough and tough kept coming" would be the right thing to say. Yes, His struggles with math kept increasing as he progressed to further grades.

When the word problems demanded application of more than one operation, that is, do subtraction in the first step and then do multiplication, it became a night mare for him as he didn't know where to apply which operation. Further, topics like decimals, fractions, mensuration and shapes threatened him to the core.

With continuous efforts and with repeated practice, by the time he moved one step forward, his peers moved 10 steps forward. So, in no way we could match the expected pace and the lagging behind kept increasing.

Our state of mind during exam preparation

Preparing for exams were really stressful for us, as one evening wasn't enough for us to cover the entire portions. Going sum by sum, repeatedly doing them took a lot of time. If he practiced a sum 5 times, each time would make a new mistake and getting a sum right was turning impossible. In such a slow pace, we were able to cover only a few exercises out of the whole portions and the next day morning he would never gain the confidence to take up the exam. Fear and worry would fill his face on the day of math exam. After getting back home, he wouldn't be in a position to share the question paper with me as he himself wouldn't be clear of what he had presented in the answer sheet.

The evening after the math exam, both of us would feel so disappointed and drained out. The fear whether he would pass the exam would fill our minds. I used to feel very bad that even after practicing the sums several times the day before, why was it not possible for him to do them in the exams? How many times to teach him everything??

This thought suddenly made me think the other way....

If teaching the same thing several times can be frustrating for me as a parent, Then, How will he feel listening to the same thing several times, yet not understanding anything?? From the child's point of view ,isn't that a painful one for him?

Because he was forced to, he was sitting in the classroom and at home with a frustrated mindset, during math time, unable to express that he hasn't understood anything. It was definitely not his problem, but as parents, we were missing out something important in making him understand the basics. This made me feel very guilty and we realized, this is something beyond our understanding and something needs to be done to help him.

Receiving the answer sheet:

If writing exam was hard, receiving the answer sheet was all the more hard for him. The dreadful scene of receiving the answer sheet in the classroom is the one he always wants to erase off from his memory.

Having known he won't pass the exams, before sending him to school, I used to prepare him mentally to stay calm and cool while receiving the papers, however the marks are. Though I repeatedly prepared him to ignore the teasing and bullying happening at school, he was unable to stay calm while he got a fail mark. The bullying, cornering and the sense of shame he encountered receiving his paper, meeting the principal for the poor performance - All these emotions would peak up and he would throw all his negativity and anger on me. He was losing his confidence and self-esteem and was developing too much negativity.

One evening, I casually asked him, Why is he fearing so much for receiving the exam paper? How would he feel in the classroom while the teacher distributed the math papers?

He answered me, " Amma...Those are the moments I don't want to think of forever. I will be very scared as the teacher calls the roll numbers one by one. When my roll number is called out, I could hear my heart beat sound, dad dab dab , it will beat fast amma... I wouldn't have the courage to see my marks on the paper."

The answer he gave made permanent imprint in my mind. He told his answer casually and walked away. But on hearing the answer he gave, I felt like someone slapping me hard on my face.

As a child, does he deserve to face such panic moments at a young age? Why should he undergo so much stress and panic moments when lack of understanding is not his fault??

This question didn't allow me to stay at peace. It's a major responsibility for us, as parents, to find the right person, the right help for him. That urged us to search

sincerely for help and that sincere search led us to Diksa, which was a turning point in his life. A positive turning point that turned out things in a beautiful way for him.

Journey continues..

Our Journey with math - Part 4

Grow with math experience - A beautiful beginning.

"A problem clearly stated and understood is a problem half solved". After assessing my child, Sudha ma'am at Diksa was able to clearly state and understand the difficulties he was facing and what exactly needed to be done for him. That clear understanding about the child's problems marked the beginning towards solution for his difficulties.

The very first interaction with Sudha ma'am and the warm, friendly ambience and friendly gesture shown by Team diksa, gave us a lot of hope. The thought, "This place and team will definitely create the magic and will help him learn math happily" got rooted in my mind. The journey of "Grow with math" thus began with a lot of trust and hope.

Grow with math session duration was 1.5 hours and initially it worried me. The school math period was only 40 minutes and for my child, sitting for that 40 minutes was very frustrating. So I was a little worried whether he would be able to sit and pay attention for such a long time. The other thing that left me puzzled was he was not asked to carry his school math text book while attending the sessions there. Without working out the sums given in the text book one by one, what will be done for 1.5 hours, without books what will be taught and how will that improve his academic performance???? Many questions kept running in my mind.

After the first few sessions itself, I could sense the happiness and change in attitude in my child. Surprisingly he didn't turn tired after the 1.5 hours session and he didn't make a single complaint about the long duration. That happiness he showed towards attending his math sessions at Diksa, and he eagerly looking forward and waiting for the next session, ruled out and erased off all the questions that were in my mind. After that there was no looking back and as parents we kept 100% trust on Diksa and the team did wonders for him.

As a parent, I felt, the normal methodologies adopted at school alienated math from him. It gave him a scary feel about math and he considered math as something that was so fearful that he wished to remove that word math from his life. But, Diksa's approach towards math made him realize that math is not something alien. Diksa taught my child to connect math with all that we do every day.

When he was able to see math and relate it to things he sees around him, the way he approached the subject started to change. Diksa's practical approach, involving him and motivating him to open up and talk about things in terms of math casually, developed a feeling that math is not limited to textbooks, working out sums one by one several times, but math is something interesting which can be seen in all activities he does daily.

A boy who used to dodge and avoid anything related to math, slowly started talking about math. He came forward and discussed activities at home connecting math to it. "Addition, subtraction, proportions, fractions are all not something alien, and they are not something we sit and do only in the exams and notebooks, but they are a part of what I do at home every day, what amma does at home every day." When this feeling of comfort about math entered his mind, his interest towards the subject improved.

Diksa's first step was to remove the alienated feeling and bringing in a feel of comfort for him. Everything that was taught at Diksa was done in a simple yet beautiful way where the child could relate it to daily life. This brought a massive change in his mindset and he slowly started developing good bondage with the subject and also with the mentors at Diksa.

A lot of unlearning happened for him and the beautiful phase of learning math with new eyes and mind thus begun for him.

Journey continues..

Our Journey with math - Part 5

Grow with math experience - The transformation phase

The beautiful beginning of math learning at diksa blossomed and led to a positive transformation in my child's life. The dedicated efforts of his mentors - Sudha Maam, Anuradha maam, Lekha maam and team started to show its results not only in his academic improvement but also in his personality as a whole.

His Liking for Diksa classes and how it changed his approach towards math :

He found the classes at Diksa totally contrasting to what he faced at school. The math concepts were taught and explained in a way where he could connect them to his daily living.

Moreover, the teachers gave him opportunities to talk, and the activities also involved group interactions. This made him open up and talk to friends of his age, interact with them, discuss math with them. This group activities involving peer interaction gave him a lot of happiness and a sense of inclusion which made him feel good about himself. He eagerly looked forward to the sessions to learn math as well as have fun with peers and his friendly mentors there.

Every concept - Number operations, fractions, measurement, angles, shapes, time, money etc were all taught with a practical approach. Instead of getting glued to the blackboard sitting in one place, math at Diksa was taught with movement, using materials and aids with a practical approach involving interactions. This created interest and pleasure in him to learn the subject. As the interest in the subject started to grow from "within him", gradually the push I had to give decreased.

Unlike the school classes, at Diksa every topic taught was not rushed through. There was enough time to clearly understand all about the topic. He was asked to frame questions by himself which kindled the curiosity and thinking in him. Framing math stories and questions was initially challenging for him as he could frame questions only if he knew the answer. But that motivated him to improve himself and sharpen his understanding. To think and frame questions and create math stories in each topic strengthened his basic understanding of math concepts. Only after ensuring that he understood a topic, the next topic was started. That gave him time to breathe and understand thoroughly what was taught.

The other important part he liked was that the statement problems given at Diksa had numbers of maximum 3 digits and the scary several digits numbers weren't used. The examples and the simple language used in the sums helped him to understand the statement problem by himself without me sitting and explaining to him. The simplicity of the numbers minimized the mathematical errors he usually made. He was able to arrive at right answers without committing much errors.

The activity sets given at Diksa were designed according to the level of him. It was given in such a way that, the child could sit and solve everything by himself. As he started solving the activity sets by himself, he felt proud to taste the feel of independence. This resulted in a remarkable change in his confidence levels. The thought that "I can do" started to develop deeply in him.

The sense of accomplishment he gained by solving the problems & the activity sets all by himself and the opportunity given to interact with the peer group and teachers made all the difference.

Diksa was instrumental in giving him what he missed at school :

It was this sense of accomplishment he was lacking at school as he was never given opportunities to taste that feel of independence and achievement.

Every time he failed in math, he would be asked to take up a re-test. The name "re-test" student was his brand and that gave him a lot of pain. As a mother, I had a feeling, if he was given a chance to pass at least one test and if was able to taste that happy moment of getting a pass mark once, that would motivate and push him further. Hence, I would request his teacher at school to give few easy questions in the re-test for him to sense the happiness of passing the test. But, Unfortunately even the re-test question papers would be set hard and the very sight of the first few questions of the paper will set a panic for him. He would lose his confidence and in panic leave questions unattended and would struggle to get a pass mark. As this happened year on year, confidence in improving himself was lost and he eventually lost the interest in the subject and avoided mingling among a group too.

Fortunately, by the divine's grace, he landed up at Diksa at the right time before he could reach the peak of his frustration. Attending math sessions at Diksa, the way math was taught for him, the beautiful peer group interactions and motivation from the mentors and most importantly the "feel good factor" about himself that diksa seeded in him and the feeling of independence he felt while doing math at Diksa,

brought a change in his mindset and we were able to see noticeable changes in him.

Journey continues...

Our Journey with math - Part 6

Visible changes in his academic performance and at the home front

Approaching things with confidence and approaching things with fear - The approach we choose matters and it affects the results. Diksa helped my son discard the fear and approach things with confidence. This made a positive transformation happen in him.

The clarity he gained and the removal of clutter and confusion from his mind helped him to present his answers in an acceptable neat manner. He gained clarity in the sequence of doing a statement problem involving 3,4 steps and different mathematical operations. He gave up dodging and came forward to try every problem in the textbook and in the exams. Though doing the whole sum right was not happening all the time, he gave a good try and was able to progress through the steps in the right order.

He started to stay calm and relaxed and he started to believe in himself that he could do. This positive attitude helped him a lot to minimize the mathematical errors he usually makes out of panic during exams. Surprisingly, he also came forward to share the question paper with me and discuss about his performance. He was able to recall and tell what all sums he did right and what all sums he did wrong and to my huge surprise, he referred to his class work and confirmed that his answers were right.

For the sums that went wrong, he was also able to analyze why it went wrong. Understanding where we made a mistake is a key towards correcting them. Diksa molded him to self correct, analyze and understand his mistakes, a huge learning that happened for him that helped him in his positive progress.

One more wonderful noticeable change was, the quality of focused attention. Initially it would take hours together to finish a small portion but after the sessions and the fine tuning that happened in him, we were able to complete the homework sooner and during exam preparations we were able to cover up the syllabus in a comparatively quicker span of time. Expecting my verbal prompt and guidance in doing the sums gradually ceased and he was able to initiate solving the problem by himself. This was made possible because of the good quality of attention he paid and the attitude in him to learn and try with happiness and confidence and the ability he gained to connect and apply the concepts appropriately.

At home:

He was totally carried away by the practical approach at Diksa that he started seeing everything with the eyes of math. He saw angles - acute, right, straight angles in the things at home. He observed patterns and shapes in and around the objects we use daily. He participated in cooking, tried explaining about proportions and volume with the things we used for cooking. The measurements, time, money concepts became clear for him he was able to think in a realistic way when it was taught with a practical approach engaging the children to get involved in real time project works. In short, he was breathing mathematics so casually that he saw math as an inseparable factor in daily life.

He took initiative to do small shopping independently, calculate the balance amount and bring it back home correctly along with the items he purchased. He showed a liking to have and maintain a money purse on his own and have a record of his transactions.

The best part is his active participation in the games we used to play in the family and in the neighborhood. Initially, he would dodge and try to avoid playing games as it demanded understanding of rules, apply logical thinking and process math information. A simple game like Monopoly appeared a big task for him as there were calculation of money involved. Card games and board games like Scotland yard would be a night mare for him as he wouldn't know to plan and make the best moves.

But after Diksa fine tuned his thinking and strengthened his understanding and as he gained in depth knowledge about each concept, a remarkable change took place in his thinking and in the way he processed mathematical information. He was able to do calculations mentally in a pretty quick manner. He was not wanting a paper and pencil anymore to do calculations. It is such a wonder moment for us that he is now able to think and make smart calculated moves, plan and win games.

The diligent efforts by his mentors and the willing cooperation he offered helped him score a consistent 50% of marks in mathematics. But, That was still not enough to meet the expectations of the school as he was nearing ninth standard and would be appearing for board exams in a year. What was decided and how did he make it?

- to be continued in the final part.

Our Journey with math - Part 7

Board exam preparations and his view of Math now

The math sessions attended at Diksa and their way of teaching brought in a phenomenal change in my child. Not only in daily life but also in his academics he showed visible improvement in all aspects related to math. He was able to pass in every math exam and was able to get consistently 50% of marks.

But, the expectations of the school were different. Since he was at the end of grade 8 and would be appearing for board exams in a year, the average 50 percentage of marks wasn't impressing them to get him promoted to next grade. The question of whether he would be able to handle and clear the tenth grade board exam bothered them.

At that point of time, we were given two choices,

- Either we opt for taking exemption for the subject of math during board exams
- Or, opt for moving out to a different school following an easier syllabus.

As parents we were in a fix and a got little confused about what to do next. His dad was very firm against the option of taking exemption for math. He believed that the subject of math was always essential to improve the thinking and that would eventually help the child to handle things in a better way in his life. So he turned down the option of taking exemption for mathematics and without choice we had to leave the school.

His mentors at Diksa guided us that he would definitely be able to do well when shifted to comparatively easier Samacheer board. We then moved him to a very small school following the Tamilnadu Board Samacheer syllabus.

As per the saying, "Everything happens is for good", the move to the new school, new environment brought in positive changes in him. The atmosphere was friendly, people at the new school saw him as himself without any preconceived labels. Suddenly he felt that the burden of carrying the tag and labels so long was shed and he felt very free at his heart and mind. That gave him a lot of encouragement and motivation to improve himself.

Though the syllabus was heavy, the questioning pattern was easy for him to handle. Repeated revisions, good efforts and hard work helped him pass all the math exams in his new school. Not a single time he failed in the subject of

mathematics. This gave him a lot of confidence and improved his self esteem and he started to believe that he was also capable of scoring good marks in math. This pushed him to put in more efforts and try harder to achieve good marks.

During his tenth grade we arranged home tuition for him. Home tuition helped him to get better individual attention and also he developed good bonding with his math teacher. The teacher was able to understand his strengths and weaknesses and he guided my child beautifully by encouraging him and highlighting his positives.

The good interest he developed in the subject made him do mathematics with happiness, enjoying every bit of it. We even reached a state, where, he started to feel other subjects were tough and was able to handle math in a much easier way than other subjects.

The divine's grace, his hard work and diligent efforts, the positive attitude he developed towards the subject - All helped him score 67 % in his tenth board exams. It was such a happy moment for us where he passed his tenth grade with an overall 72% without much of stress and strain.

His math learning didn't stop with tenth grade. He wanted to take it up further too. He opted Business studies group choosing Statistics and Business math as main subject and his learning experience with math continues happily.

We realize, there is no difficulty or problem with the subject math. The difficulty arises in the mind of the child when it is not taught in the way the child understands. The uniform expectation that all children should learn and perform the same way, and the teaching methods aligning to it, multiplies the difficulty for few children who have difficulty to understand or need more time to follow the routine teaching methodology.

We are extremely glad that my child got the opportunity to learn math the way he understands and we feel grateful to Team Diksa for being instrumental in removing the phobia of math from him. He is really fortunate to be mentored by the hands of Team Diksa. Math travels with us throughout our lives in one form or the other. My child is now experiencing and learning mathematics in a joyful manner. The entire credit of making it a happy experience goes to Team Diksa.

We are extremely thankful to Team Diksa, all our friends, family and well-wishers who kept encouraging us and supporting us in every tough moment we faced.

We never forget what we learn with pleasure - How true ! My child can never forget all that he learnt at Diksa. The wonderful happy learning moments Team Diksa gave him will remain with him forever. Carrying all those happy learning in

his mind he continues his journey further with confidence aspiring to become a successful businessman.

By the grace of the Divine and with the blessings of all his mentors let his dreams come true.

- Journey with math - A mother's perspective - Ends happily.