



Essential Modern Way Of Teaching & Learning Process

In Maharashtra state Bhamate is a Highland & Desultory village which is 22 kms away from Kolhapur district city westward. In 12th June 2003, **Mr. Machhindra Raghunath Kumbhar** started working as an assistant teacher in the school of Adarsh Highschool, Bhamate Tal- Karveer, Dist:-Kolhapur. This school has only 5 teachers to manage students from standard 8 to 10. In that school I teach the Mathematics subject from the service joining date. Identify the burning issue of Mathematics in the various school as follows.

The Burning Issue of MATHEMATICS :-

We can rarely find a school that has students interested in math's. If we peep into we feel concerned about the decreased quality of mathematics, the fear about the subject & disinterestedness of learners. Is math's so difficult to understand? or there are any problem in our teaching?. Are today's learners tired of traditional way of learning with blackboard, chalk & charts?. These questions arise in the mind of a teacher like me and when I tried to find answers. I understood that there are many innovative and delightful ways of teaching Mathematics. Inspiration behind the creation of "**Interactive Animated Flipbook of IXth std Maths Part-I**". Today's kids are growing handling advanced instruments & gadgets from the childhood. To attract these multimedia stucked children towards learning & make them to learn is challenging task before teachers. So, it is mandatory for the teacher to turn to be technosavy. This is the inspiration behind creation of this **Interactive Animated Flipbook**. Which helps learners to learn in entertaining way. Let's see need & importance of my innovation.

Need & Importance Of my Innovation :-

Use of Modern Technology in self-create Interactive Animated Flipbook. All factors are arranged according to constructivism. Joyful Education is main objective of my innovation. Arrangement of attractive Videos & Cartoons in Animated, MP4 & MP3 Format. All videos & exercise of chapters are self-created in Interactive Animated Flipbook. According to unit links of websites are given for extra study & references this can be helpful for sufficient guidance. Students are appreciating Difficult level part of maths with the help of self-create cartoon films. Content related Flipped Pictures are attractive part of my Innovation. My Interactive Animated Flipbook bring to Vitality in textbook.

Pre- Preparation :-

My an innovation project completely depending upon self-made Interactive Animated Flipbook & many types of classroom learning based group activity. So you firstly download freely Interactive Animated Flipbook with the help of following links

For Desktop Or Mobile :-



<http://online.anyflip.com/kwwj/ldwk/mobile/index.html>

Download with the help of QR code





Scan QR Code with the help of QR scanner then open given link click on it then see **Interactive Animated Flipbook** in your android device & Open in your smartphone

Planning of An Innovation :-

An innovation was planned as follows,
For Innovation I had selected Sets chapter of IX th std.
(Mathematics Part-1)

a) To download **Interactive Animated Flipbook** of IXth std Maths Part-I in their smartphones by using above given link

b) To complete the Home Work by viewing same videos & cartoons. The next day the home work was checked & doubts were cleared.

According to the timing given in the innovation methodology, on that day, the students should carefully check the video and cartoon (7 minutes) by clicking on the link provided in **Interactive Animated Flipbook** of IXth std Math's Part-I. In that group discussion, activity work, question creation, self-esteem, educational material production, homework, self-determination and doubt Special emphasis on this. In this way, according to the time table, videos & cartoons of the related units were showed from YOU TUBE by using **Interactive Animated Flipbook** of IXth std Math's Part-I. Using constructivism in the class every student take part in group activity very joyful. In group activity, they make itself models of Set ,Types of sets, Venn diagram, Subset, Universal set, Complement of set, Intersection of two sets , Disjoint sets, Union of two sets using of raw materials means making durable goods from waste items. The task was completed according to the pre-planned time-table . Then multi set paper online test was planned using by testmoz.com website. Students from each group appeared online test of 25 marks. The performance was registered for Evaluation. In this way ,an innovative project was completed. Let's see Some Screenshots & **Structure of Flipbook.**

Structure of Interactive Animated Flipbook

Using the Flipbook student learn joyful & smartly. From front page student start to learn using clicking on various tabs which are given on page.

In the text book there are many types of flipped images & content related videos which can be confidently solve content related problem of every student mind.

Smart & Amuse extra exercise very helpful for student memoire & revise mathematical content.





सं. B = {x | x ही 1 ते 10 मधील सगळे संख्या आहे.} यामध्ये 1 ते 10 मधील सर्व संख्यांचा समावेश होईल म्हणून B हा संघ {2, 3, 5, 7} असा आहे. यामध्ये केवळ 2, 3, 5, 7 हे संख्यांचा समावेश होईल.

Q क्व कोणत्या संख्या संघात गुणवत्ता प्रमाणित आहेत ते सांगितले जावे.

$$Q = \left\{ \frac{p}{q} \mid p, q \in \mathbb{N}, p \neq 0 \right\}$$

याचे संघ \mathbb{Q} या संघात समाविष्ट आहे. अशा संघात \mathbb{N} , \mathbb{Z} ही मोठे संघ आहेत. म्हणजे $\mathbb{N} \subset \mathbb{Z} \subset \mathbb{Q}$ म्हणून म्हणता येईल.

सूचक उदाहरणे : कधीकधी उपसंघात प्रमाणित संघात येऊन शकतात. उदाहरण असे:

गुणवत्ता संघ	संघ
A = {x x हा EVEN NUMBERS चा समुहात्मक संघ आहे.}	A = {0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, ...}
B = {y y ही संख्या आहे जी 4 च्या गुणवत्ता आहे.}	B = {0, 4, 8, 12, 16, 20, 24, 28, 32, 36, 40, 44, 48, ...}
C = {z z ही 5 च्या गुणवत्ता आहे.}	C = {0, 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, ...}

शे. : गुणवत्ता प्रमाणित संघात समाविष्ट संघात येऊन शकतात.

संघ	गुणवत्ता संघ
A = {2, 4, 6, 8, 10, 12, 14, ...}	A = {x x ही 15 पेक्षा लहान वा बरोबर संख्या आहे.}
B = {3, 6, 9, 12, 15, ...}	B = {x x ही 1 ते 20 मधील पूर्ण संख्या आहे.}
C = {a, b, c, d, e, ...}	
D = {x y हा द्विघात समीकरण आहे.}	
E = {x x ही पूर्ण संख्या आहे जी -3 < x < 3}	
M = {1, 8, 27, 64, 125, ...}	M = {x x हा पूर्ण संख्या आहे.}

उदाहरण 1.1

(1) गुणवत्ता संघात येऊन शकतात.

(2) संघात समाविष्ट संघात येऊन शकतात.

(3) संघात समाविष्ट संघात येऊन शकतात.

(4) संघात समाविष्ट संघात येऊन शकतात.

(5) संघात समाविष्ट संघात येऊन शकतात.

(6) संघात समाविष्ट संघात येऊन शकतात.

(7) संघात समाविष्ट संघात येऊन शकतात.

(8) संघात समाविष्ट संघात येऊन शकतात.

(9) संघात समाविष्ट संघात येऊन शकतात.

(10) संघात समाविष्ट संघात येऊन शकतात.

(1) मोठे संघात येऊन शकतात.

(2) संघात समाविष्ट संघात येऊन शकतात.

(3) संघात समाविष्ट संघात येऊन शकतात.

(4) संघात समाविष्ट संघात येऊन शकतात.

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(9) संघात समाविष्ट संघात येऊन शकतात.

(10) संघात समाविष्ट संघात येऊन शकतात.

Some Highlights of student learn with the help of animated flipbook

Using the Flipbook student learn joyful & smartly .



Students Learn every content very carefully & concentered with the help of Flipbook.

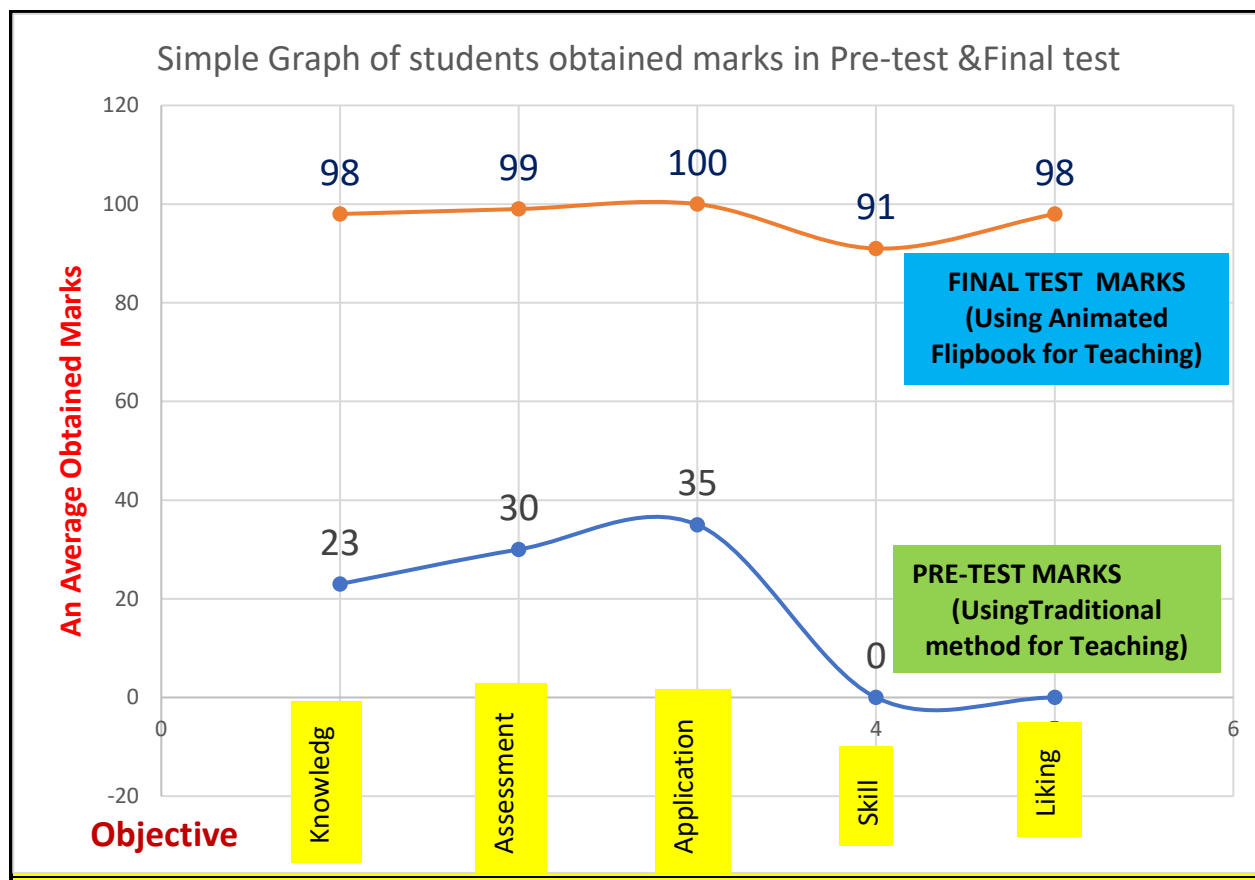


*Mr.M.R.Kumbhar sir In the Class
Taking Students Activity by using
Animated Flipbook*



*Hon. Scientist Dr. Arvind Natu sir & Hon.
Dr. Gitanjali Borude Attend function of
Inaugurator of Interactive Animated Flipbook*

Let's Compare an average percentage of obtained marks in Pre-Test & Final Test with the help of " the Graph"



After Observing the above graphs, You can easily understand the traditional teaching method is very boring, a teacher-centered, Apathetic, students dislike so the progress of the students has been certainly reduced.

On the contrary, In the classroom teaching use the combination of modern technology (Using Interactive Animated Flipbook) & constructivism always drop positive affect on students. If include the constructivism in the teaching method then children are filled very happy. That's method, keeping encouraged the children for done their work very smartly, motivate them doing their work & given them an opportunity to learn according to their ability. so the progress of children has been certainly increased.

Children who are involved in mobile & who are losing their time in mobile. This innovative project work is useful for this students. This innovative project work is fruitful for education system. This project work brings students in stream of joyful learning. It keeps student busy in classroom activities & also creates scholastic atmosphere. Pleasant or Joyful learning is the main purpose of this project. Students are learning Math's with enthusiasm. This project enthuse the pupils. We have succeeded to remove the unnecessary fear about math's by preparing Videos, cartoons & assignments based on constructivism. Under this project work activity books are made on as constructivism base. Animated videos & MP4, MP3 formats are used to make related videos. These videos are related to math's topics. These videos make teaching, learning process easy & joyful. Because of self producing cartoons, which are used in "Interactive Animated Flipbook" the students can solve difficult mathematical problems with great interest & happily. **This is the best result of my innovation. Different websites Links are giving in Interactive Animated Flipbook to learn some topics like "set". These links are useful as supplementary material for additional learning of such topics. "Testmoz.com" is very easy & interesting website.**

It is very easy for the students to give the tests & to get fast results. At the same time it is easy for teachers to diagnose & to understand the problem & mistakes committed by the students & that will help the teacher to guide the students properly & to give new them new links. No one remain undeveloped by using this work of project. We have made 45 Apps to learn math's by easy way. These apps make learning process more effective. My innovative project work create interest in students. We found that now they are very eager to learn math's through this project. Before using this innovative project work students were on average level but after using this project they are developed & got the skill of math's & very easy technique. It increased their interest in learning. This innovative work increase the level of knowledge, the skill of understanding & application. This project helps students to think independently & express themselves more effectively. By undertaking this project we got 100% development among students. It sharpens & upgrade their abilities & skills to acquire perfection. Students are get acquainted with beauty of math's. This innovative project is revolution in field of education. It aims to help students to become better users of new technique. In the world of globalization it has become need of hour. It increase the confidence among the students. Now students talk freely with teachers. It is definitely useful to all level students. This innovative work of **Interactive Animated Flipboo** in their day to day teaching. This **"Interactive Animated Flipbook"**. Flipbook is freely available on given link. It will reach among students, teachers & parents within few days. So the students, the teacher & the parents will get advantage by downloading this app. Day to day life students depends on private classes but this app will keep away students from such classes. It will bring them in self learning process. It saves money & their time. Because of this innovation (**Interactive Animated Flipbook**) the parents, the society & the teachers & their teaching methods have increased their believe. It offers the opportunity to students to learn math's easily. It is opportunity not only to students but also teachers & parents. Math's is part of our life. No human life without math's. we all are familiar with it but app provides simple way to handle math's & give chance to do practice. My innovation is completely paper less means eco-friendly. All data of my innovation available in **"Interactive Animated Flipbook"** that is on internet. It saves environments. Ideal citizen make ideal society. Now days students are builder of nation. My flipbook develop to students means indirectly develop to society. With the help of Advanced Technology such as What's app, Facebook, Twitter, Sky-pe, Attendance app, Math-papa app. Social work jobs app etc. these flipbook connect school to society. **Our innovative flipbook aims to build fearless, tension free, confident & self-sufficient, studious students. It work as tutor. Thus this flipbook is foundation of new society. Thanks to all.**



My Remotely Introduce



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