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A STUDY OF SKILLED LEARNING IN TEACHING THE CONCEPT OF CONTINUITY, DIFFERENTIABILITY AND VECTOR FOR STUDENT-TEACHERS

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ABSTRACT:
Many misconceptions arises during the course of practicum imparted to the student related to mathematics and physics committed by student-teachers. The fallacies also arises during Ph.D presentations, symposiums, conferences as well as during of interviews, teaching in school and colleges. The confusion created in the intellect minds caused the need of this study. This paper aims to study the techniques of improvement and uplift the thought process and thus inducing creativity. Learning objective to know, analysed and overcome misconception related to continuity, differentiability and vector.
Key words: *misconception, differentiability, continuity, learning outcome.*

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INTRODUCTION: During the teaching of mathematics the mentors commit some errors in solving some problems. If the transmitter is not able to impart accurately, How could the receivers gain the things properly. So the students unable to receive proper understanding in this matter. Such type of mistakes create rumors in the intellectuals and over and above in society. But the researchers will be giving experimental evidence according to previous studies in India, like PISA report. This report revealed that our Indian school students conception are totally let down in basic concepts of mathematics.

Foundations: - It is found that an important thing is missing in the schools, colleges, educational institutions which is the key role in imparting education. That is the proper

command or mastery over the subject. Hence forth with the lack of knowledge the teacher is not able to show its full potential. Lack of content is also vanished in teacher-training institutions. Without deep and practical knowledge the student-teachers move in in the teacher training institutions in India, treating mathematics as a scary subject. Evenly in our society the layman, parents all are having a negative or a fearful attitude towards the word mathematics. This again gives a negative feedback in a student's mind. This in turn creates a dreadful subject in present scenario. All these things create several rumors about mathematics subject.

Involvements: - A learner is motivated by the friendly environment. Playway method, Skit, songs related to the concern areas diverts the mind of the student and thus the involvement of students is multiplied without any special efforts by external sources. Increased. First of all the researchers must willing to refer all text books used in all types of school boards like M.P board, CBSE, ICSE with distinctive reference to mathematics school books. He must refer various publishers and discuss with his mentors. In this way researcher will understand all the misconceptions and confusions. This can be achieved by pretests or practice papers, thinking and analyzing his mistakes. Rigorous practice is needed and enhancing the methodology is needed with the maximum use of resources. This must be then imparted to the teachers and hence students in an interactive and healthy class. The things must be explained in remedial teaching class or extra class or any free periods. Misconceptions will be removed in this this manner. It is must by conducting the post-test researchers will be competent to know that to what degree misconceptions & slips are removed.

METHODOLOGY:-

Applicants/Sample – If the misconceptions are removed in the selected small percentage of groups then it will be very effective. Problems will be sorted and removed very easily for a selected sample. This can be applied then in the classroom teaching.

Implements & Methods - Pre-test will be raised for ruling out the fallacies & after giving intermediation post-test will be given for knowing that to which level the misconceptions are detached from the minds of student-teachers.

Subsequently the purpose of this study is to find out the errors & to fathom the difference Qualitative analysis will be carried out after giving intervention.

This picture depicts the concept of differentiability for student –teachers the function f(x) shows the coffee beans with the passage of time the coffee beans are converted in coffee powder the beans are changed in powder in time(t). In a mathematical terms y=f(x) where x is independent variable and y is dependent variable the change in y can be analysed if there is change in x with respect to time. Further to see more changes again we are differentiating and we are getting second order differentiation. which is shown below picture. The characteristic of the coffee powder can be change with small time by making a drink. This can be interpreted as second differentiation. Every differentiable function is a continuous function a if a student understand the concept of differentiability then he knows the concept of continuity.

Finally we conclude this picture in

Fig 1

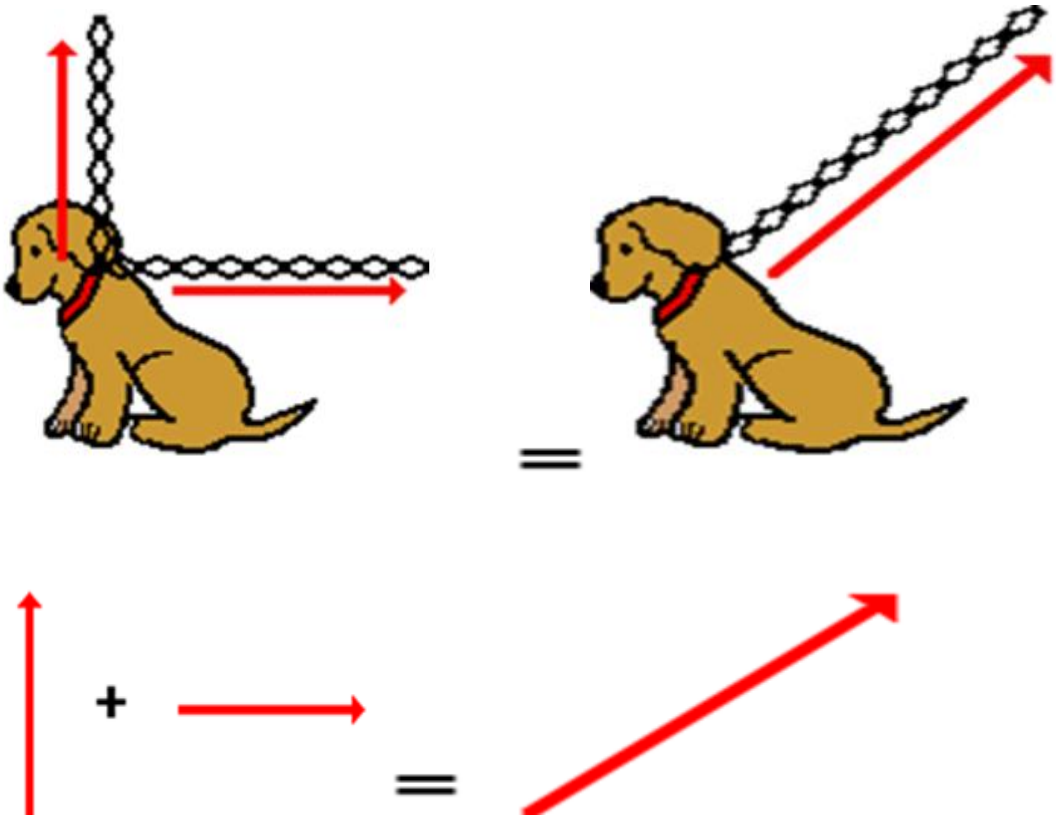

Fig 2

In fig 2 the direction of pulling the chain represents the direction of vector In fig (2(i)) the chain is pulled in vertical and horizontal direction so the dogs head will move in the direction of resultant vectors given in fig (2(ii)) This play way method will create interest in the minds of the student and they will learn concept of addition of vector with interest.

Occupancy of the study period - 3 months

Demarcations of the study- The delimitation of the study will be as follows-

1. The study will be restricted to only student-teachers studying who opted Pedagogy of Mathematics and physics in 4 year B.SC.B.Ed. Course in RIE, Bhopal.
2. The content of school mathematics and physics will be confined to school students and college students.
3. The short interval of 3 months is a constraint itself to rule out & remove the inaccuracies & misconceptions, consequently only fundamental errors will be reflected.

Conclusion:-

1. The study will prove to be important to interpret the misconceptions in understanding the concepts of mathematics and physics subject with special reference to continuity, differentiability and vector.

2. The study will help to maintain continuity and remove the misunderstanding in mathematics among student teachers in continuity, differentiability and vector.

3. The study will help in teaching mathematics school, colleges, seminars, symposium conference and research papers so that a proper channel is established for student and teachers in understanding the concepts clearly.

4. This study will help student-teachers to recognize the teaching methodology for the different category of students.

5. This study will be effective in teaching mathematics

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