Original Article

Impact Of Experiential Learning Approaches On Mathematical Aptitude In Pre- Service Teacher Trainees

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Abstract

All-round development of the students which obtained through experience is the key factor of Education. NEP 2020 focuses on teaching and learning that will be conducted in a more interactive manner; questioning will be encouraged, and classroom sessions will be more fun for the students for a deeper and more experiential learning. It says that we have to close the gap in achievement of learning outcomes, classroom transactions will shift, towards competency-based learning and education. Experiential learning can exist without a teacher and relates solely to the meaning-making process of the individual's direct experience. Though gaining knowledge is an inherent process that occurs naturally a genuine learning experience is required. NEP 2020 also says that mathematics is required to develop all aspects and capabilities of learners. Our daily life is mostly enclosed with the subject that is closely related to Mathematical aptitude. It is based on logical thinking and it is very important to be known by teacher trainees because they are the ones to hone the new generation. Mathematical Aptitude involves the process for intellectual development of the learners. It is not that mathematical knowledge is only needed by the engineers, bankers or businessmen. Even the lesser known person of the society like vendor, laborer and other unskilled worker need the basic Mathematical knowledge. The purpose of this paper is to study the various experiential learning approaches on mathematical aptitude and to find the impact level of experiential learning approaches in pre-service teacher trainees. This paper deals with the concept of experiential learning on Mathematical aptitude, problems faced by pre-service teacher trainees through traditional learning, objectives of the study, concept to be taught to pre-service teacher trainees by different activities and 'learning by doing'. The paper also discusses that through experiential learning how pre-service teacher trainees can develop the mathematical aptitude & innovative ideas

Keywords: Experiential Learning, Development, Mathematical Aptitude, Teacher -Trainees.

INTRODUCTION:

Ever increasing economic, technological, social and personal challenges of the individuals as well as the nation's alike require the Education as the main source to cope with. The Education system is supposed to prepare young people for the world of work and for economic freedom; to enable them to construct a responsible society with enough tolerance, culturally diverse even if it changes rapidly. In fact, the Education system is to be expected to make the young people capable to build lives that have more meaning and purposeful in a future that can be scarcely predicted. It should be focussed mainly on all-round development which can only be obtained through experience. It is a well-known fact that Education is more effective when it is incurred through work and craft not merely through books and theories. For true character-building education, the focus needs to be on values, ethics and ideal citizenship. Education needs to be based on non-violence. All forms of violence and exclusion in schools needs to be rooted out. Focus is also needed on culture, arts, music, dance sports and games which are the basis for the development of creativity, imagination and peaceful living with harmony. Educational planning needs to be undertaken with rural Indian masses in mind. Community is a part of every school and the community's engagement in terms of owning and managing of schools needs to be focused and promoted. With these ideas to improve the quality of education, some of the global issues and citizenship values need to be integrated in the School and Teacher Education Curriculum viz., climate change, global warming, water crisis, value crisis, swachhta, clean energies, land degradation and erosion of soil fertility, gender equity, inequity and inclusive growth to develop sensitivity and critical consciousness on the issues, among the students.

Teacher education is vital in creating a pool of schoolteachers that will shape the next generation. Indeed, with the quickly changing employment landscape and global ecosystem, it is becoming increasingly critical that children not only learn, but more importantly learn how to learn. Education thus, must move towards less content, and more towards learning about how to think critically and solve problems, how to be creative and multidisciplinary, and how to innovate, adapt,

and absorb new material in novel and changing fields. In other words, we can say that evolving pedagogy is the need of hours to make education more flexible and enjoyable. It must be designed in a way that can transact education in a manner which is more experiential, holistic and integrated so that it becomes inquiry-driven, discovery-oriented, learner-centered and discussion based education. The curriculum must include basic arts, crafts, humanities, games, sports and fitness, languages, literature, culture, and values, in addition to science and mathematics, so that all aspects of learners can be developed and education become more useful and fulfilling for the learners. Education must build character, enable learners to be ethical, rational, compassionate, and caring, while at the same time prepare them for gainful, fulfilling employment.

Conceptual Framework:

It is an outline, the scheme, the paradigm of the operation of all types of variables. The only scheme of the research is this plan. It is included with an outline of everything. Such as, writing the objective, collection of data and their final analysis for the operational implication. Based up on such works, researchers will complete their investigation. The framework of their research should be more specific. In fact, strategy is more specific than the plan. It should be included with methods to be used together and analyses the data. The main objective of this study is to know the effect of experiential learning approaches on mathematical aptitude in pre-service teacher trainees. In this study an exhaustive study is included for the DIETs pre-service teacher trainees of state of Sikkim which is based upon experiential approaches. The researcher focuses on the different dimensions of skills and experiential learning through model showing and creative learning approach. On the basis of the dimensions of skills and experience based approaches, the researcher develops separate questionnaire for the DIETs pre- service teacher trainees of state of Sikkim to know their learning skills and experiential learning. This impact of experiential learning on mathematical aptitude and Methodology will be ideal for other DIETs of other states. New methodology and strategy will be betterment for the pre- service teacher trainees.

Aims and Application of Mathematics:

Mathematics is the science of measurement, quantity and magnitude. Developing children's abilities for mathematics is the main goal of mathematics education. The school mathematics has a parochial aim to develop the students in such a way so that they can develop the capabilities to understand the numeracy – numbers, number operations, measurement, decimal and percentages. But the advance aim of mathematics is to make the students capable to think and understand the reasoning behind the mathematics, to pursue assumptions to their logical conclusion and to handle abstraction. It also includes the way of doing things and ability to formulate and solve the problems. Mathematics is directly connected to our day to day life because of its exactness, systemic structure, logical conclusion and clarity. It is involved in the process of one's intellectual development of mental faculties. Mathematical knowledge is not only day to day business for engineers, doctors and business personals but the common man of the society like laborers, workers etc are also have its use in their daily course of work. Knowledge of Mathematics not only increases the mental ability but it also develops some special quality like concentration, truthfulness, seriousness and logical. Thus, in the words of Locke it is rightly said that, **"Mathematics is a way to settle in the mind the habit of reasoning".**

The modern age life is fully innervated with the advent of science and technology in all walks of human life. It is so much affected with the technology that if a person feels inability to utilize them, his life becomes handicapped. But all these science and technological advancement is there due to mathematical knowledge and understanding. Roger Bacon has rightly said that, "Mathematics is the gateway and key to all sciences." In fact we can say that mathematics is the language of all sciences. We all are aware that, it was the mathematical interpretation of Newton's Law of Gravitation which led the world into the era of Satellite Communication. This world has been reduced into a Global Village due to advancement of modern day transport system, the Internet, Emergence of Computers and Mobiles. All these facts show that the exactness and systemic approach of Science which is considered as the backbone of technology is the virtue of mathematics.

EXPERIENTIAL LEARNING:

I hear and I forget. I see and I believe and I do and I understand

Experiential learning can exist without a teacher and relates solely to the meaning-making process of the individual's direct experience. However, though the gaining of knowledge is an inherent process that occurs naturally, a genuine learning experience requires certain elements. According to Kolb, knowledge is continuously gained through both personal and environmental experiences.

Experiential learning is very effective methodology in teaching learning process as the experience gained meticulously, remains permanently affixed in the minds of the children. So innovative teaching aids & projects of math's laboratory plays a vital role in the conceptualization process as recommended by NCF 2005 also. As the NCF 2005 emphasizes that children's experience of school education must be linked with the life outside the school, so that learning experience is joyful. Having had this in mind, several opportunities are provided to students to construct their systematic knowledge by engaging them in activities, experiment, projects field visits, discussion with peers & teachers, group work, brain storming sessions, collecting information from different sources, enquiring, listening, thinking etc. The students are provoked & allowed to share & explain their ideas & to ask, raise, pose & frame questions. Appropriate innovative tools & techniques are applied depending upon the situation & requirement of the underlying concepts.

Mushahari & Sharma (2022) Studied "Experiential Learning in Pre-Service Teacher Education: Attitude of Teacher Trainees and Challenges Faced" This studied aim to know the attitude of pre-service teacher trainees towards experiential learning approach and the issues and challenges of this approach. The study used a descriptive survey method. 113 pre-service teacher trainees have taken for the sample of study and trainees have done an internship in the respective schools. The study revealed that maximum teacher trainees had moderate to highly supportive attitudes towards the experiential learning approach. The study is also revealed that there is no significant difference between the attitudes of teacher trainees towards the experiential learning approach with respect to their issues and challenges.

Alibraheim & Al-hussary (2021) Studied on Investigating Pre-service Elementary Teachers' Mathematical Power. The findings showed that pre-service teachers had a low level of mathematical power, and there were three factors that contributed to the pre-service elementary teachers' low level of mathematical power. It could improve pre-service teachers' mathematical power domains including mathematical communication, connection, and reasoning.

Ross & Gray (2020) Studied on "The Effects of an Experiential Learning Course on Secondary Student Achievement and Motivation in Geometry". A quantitative, quasi-experimental design was used to determine the effect of an experiential learning course by Investigator. 181 samples have taken of secondary students from ninth and tenth classes. The study found that when students experiencing the Geometry in Construction curriculum. Then it has shown the significantly higher achievement in geometry and motivation to learn geometry. The effects of an experiential learning are more visible among females compare to males. The study suggested that geometry course components of the school curriculum inculcate experiential learning focused on solving problems that are relevant to learners for real life situation.

Septiana,Zubainur &Ramli(2020) Studied on "The enhancement of student's mathematical understanding ability through the Aptitude Treatment Interaction (ATI) learning model" This study aims to determine the differences in the increase in the mathematical comprehension of students who take learning using the ATI model and those who take conventional learning. This study involved 51 Years 7 students from one private Islamic Junior High School in Banda Aceh, Indonesia, namely: 25 students in the experimental class and 26 students in the control class. The instrument used was a test of the students' mathematical understanding ability. Students' mathematical understanding ability was analysed using an independent sample t-test. The study found that students' mathematical understanding ability who took learning using the ATI model was better than those who took conventional learning.

Khaliq & Rasool (2019) Studied on **"**Effectiveness of Experiential Learning Approach on Students' Mathematical Creativity". A pre-test-post-test control group design was employed to conduct this experimental study. This study compared the effects of independent variables which is traditional teaching method, experiential learning approach on the dependent variable which is mathematical creativity. The purposive non-probability sampling technique was used in this study. t- test and ANOVA used for data analysis. The study found that the experiential learning approach has a significant positive effect in developing secondary school students' mathematical creativity.

Mutmainah , Rukayah & Indriayu, (2019) Studied on "Effectiveness of experiential learning-based teaching material in Mathematics" This study included 28 students of the fifth-grade elementary school Nongkosawit 02 as the experimental group and 26 students of the fifth-grade elementary school Sadeng 03 as the control group. The instrument used in this research was multiple choice test consisting of 30 questions. The test was used to obtain pre-test and post-test score. The data analysis in this research used T-independent test to examine the hypothesis. The result of the study shows the significance level of 0.000 is less than $\alpha = 0.05$ which means that there is different cognitive ability between the experimental and control group. Thus, the use of experiential learning-based teaching material in Mathematics is effective to improve the Mathematics cognitive ability of the fifth-grade student in elementary school.

Wassem (2019) 'A Study of the ways Children Solve Mathematical Problems'. It was revealed that children shown different strategies to solve the addition problems by the using tallies or lines strategy, count all strategy etc. The Data represents that children came up with various strategies to solve the subtraction problems by the using column strategy, tallies or lines strategy etc. further Analysis showed that children used different strategies to solve the multiplication problems too by the using column strategy, row strategy, similarly children also used different methods to solve the division problems by the using tallies or lines strategy, grouping strategy etc. Investigator took the Interview of teachers and it revealed that most of teachers accepted that most of the children of their classes are able to solve the problems orally or mentally though they may face difficulties in solving it in written form. The Researcher concluded that some of the ways which are be different from the routine classroom strategies and those mentioned in the textbooks are depicted here related with addition, subtraction, multiplication and division.

Aher (2017) Studied on "Co-operative learning strategies academic achievement interest and problem-solving ability of students". The researcher showed that the developed intervention programme (including the lesson notes, the support material and the achievement test) was suitable to be implemented in the classroom. It is also found that Co-operative learning strategies improves academic achievement, interest and problems solving ability in Mathematics.

Coker & Heiser (2017) Studied on "Impacts of Experiential Learning Depth and Breadth on Student Outcomes" This study suggested that both experiential learning depth (amount of time commitment) and breadth (number of different types of experiences) are valuable and lead to additional learning gains in a range of areas. Both depth and breadth were positively associated with acquiring a broad general education, writing clearly and effectively, contributing to the welfare of the community, relationships with faculty and administration, and desire to attend the same institution.

Mallart, Font & Diez (**2017)** Studied on "Case Study on Mathematics Pre-service Teachers' Difficulties in Problem Posing" 10 pre-service teachers who were good at problem-solving participated in the study. Data was gathered through qualitative techniques used like classroom observations, sequences of tasks, questionnaires, student focus groups, and discussion. The case study illustrated with some of the pre-service teachers' difficulties in problem posing: creating problems that students recognize as relevant to their everyday lives, problems adapting to the school curriculum at a specific educational level, and problems that can be self-corrected. The study revealed that the role of Problem-solving approaches is very much a part of teaching mathematics in classes, but problem-posing is not addressed to the same extent in teaching mathematics. The study also revealed that the pre-service teachers did not feel prepared to pose mathematics problems because they had only been trained to solve the problems not to pose the problems. They acknowledged that they did not have satisfactory resources or tools.

Mishra (2017) Studied on "Scientific Aptitude and Achievement in Mathematics of Students in Sikkim". It was found that boys have more scientific aptitude than girls. It is also found that scientific aptitude of urban students is more than rural students and positive real correlation exists between scientific aptitude and achievement in Mathematics.

Chesimet , Githua & Ng'eno (2016) Studied on "Effects of Experiential Learning Approach on Students' Mathematical Creativity among Secondary School Students of Kericho East Sub-County, Kenya" The study found that Experiential Learning Approach had a significant effect on students' mathematical creativity. The findings of the study are expected to assist mathematics teachers to adjust their instructional strategies and also teacher trainers may use the information from the study to sensitise in-service and pre-service mathematics teachers on the importance of Experiential Learning strategies in enhancing Mathematical Creativity.

Paramasivan (2011) Studied on "Effectiveness of activity-oriented approaches in improving the performance of backward learners in Mathematics at the secondary school level". The study revealed that activity-oriented approaches implemented in secondary school of class Nine have significantly improved the academic achievement of the backward students in Mathematics. It was also revealed that maximum students were very much willing to learn new theorem and enjoyed doing theorems with efforts and confidence.

Objectives of the Study:

- To Study the Mathematical Aptitude of pre- service teacher trainees of DIETs Sikkim.
- To Study the Impact of experiential learning approaches on Mathematical aptitude of pre- service teacher trainees of DIETs Sikkim.
- To Compare the Mathematical Aptitude in relation to Male & Female, Private & Government Management, Mathematical & Non Mathematical background and ST & NON-ST of pre- service teacher trainees of DIETs Sikkim

Methodology of the Study: The Investigator used descriptive method to find the impact of experiential learning on mathematical aptitude of pre- service teacher trainees. This Study conducted by Investigator in all DIETs which is run by Government of Sikkim and it is situated at Gangtok District, Namachi District and Soren Districts of Sikkim. Investigator is also conducted study one private DIETs namely Carmel teachers training Institute, from Pakyong District of Sikkim.

Population and Sample of study: There are 400 pre- service teacher trainees in all DIETs of Sikkim. Investigator was collected data from 346 pre- service teacher trainees in which there are 53 males and 293 females selected randomly from all DIETs of Sikkim.

Procedure of data collection: The Researcher developed the tools and used in his study. This scale has been standardized by Investigator himself. In this scale an effort has been made to assess various dimensions like concept of calculation in Arithmetic, series based questions, verbal reasoning, concept of Average, concept of percentage etc. to know the level of mathematical aptitude of the subjects. Reliability of the Mathematical Aptitude Test was established with the help of Split-Half Reliability KR-20 method. For establishing the reliability, the Mathematical Aptitude Test was administered twice on 168 pre-service teachers of DIETs from government and private college. The gap between first and second administration was of 30 days. From the data, correlation coefficient was computed. The Split-Half Reliability KR-20 Reliability coefficient alpha for the 25 items was 0.63, which indicates that the items from a scale that has reasonable internal consistency reliability. Therefore, Mathematical Aptitude was considered to be reliable.

First of all, Investigator has taken permission for data collection, from the principal of, all DIETs of Sikkim. There were 249 samples from government DIETs and 97 from private DIETs, 106 samples based on Mathematical Background and 240 samples from Non-Mathematical Background pre- service teacher trainees, 155 samples from ST Category and 191 NON-ST category. Simple random sampling technique was used to collect the data for the present study. Data obtained from 346 pre- service teacher trainees of all DIETs of Sikkim and analysed by using the quantitative and descriptive analysis methods for the present study.

Table No. 1: Test of significant difference between means of male and female of pre- service teacher trainees on mathematical aptitude

Gender	N	Mean	Std. Deviation	S_{ED}	t	*df*	Remark
Male	53	23.13	5.929	0.910	4.119	80.009	Significant
Female	293	19.39	6.931				

The above table No. 1 shows the value of 't' is 4.119 of pre- service male and female teacher trainees on mathematical aptitude which is more than the table value 1.97 at 0.05 and 2.59 at 0.01 level of significance. Therefore, the hypothesis that there exists no significant difference between pre- service male and female teacher trainees on mathematical aptitude was rejected. It means that Null hypothesis is not accepted and shows that mathematical aptitude of pre- service male and female teacher trainees differ significantly, thus it can be concluded that gender affects the mathematical aptitude of pre-service male and female teacher trainees.

Table No. 2: Test of significant difference between means of government and private of pre- service teacher trainees on mathematical aptitude

Management	N	Mean	Std. Deviation	S_{ED}	t	d*f*	Remark
Government	249	20.59	7.352	0.714	3.131	85	Significant
Private	97	18.35	5.331				

The above table No. 2 shows the value of 't' is 3.131 of pre- service government and private teacher trainees on mathematical aptitude which is more than the table value 1.97 at 0.05 and 2.59 at 0.01 level of significance. Therefore, the hypothesis that there exists no significant difference between pre- service government and private teacher trainees on mathematical aptitude was rejected. It means that Null hypothesis is not accepted and shows that mathematical aptitude of pre- service government and private teacher trainees on mathematical aptitude differ significantly, thus it can be concluded that management affects the mathematical aptitude of pre- service government and private teacher trainees.

Table No. 3: Test of significant difference between means of mathematical and non-mathematical background pre-service teacher trainees on mathematical aptitude

Stream	N	Mean	Std. Deviation	SED	t	d*f*	Remark
Mathematical	106	19.66	6.803	0.799	0.540	205.508	No-Significant
Non- Mathematical	240	20.09	6.970				

The above table No. 3 shows the value of 't' is 0.540 of mathematical and non-mathematical background pre- service teacher trainees on mathematical aptitude which is less than the table value 1.97 at 0.05 and 2.59 at 0.01 level of significance. Therefore, the hypothesis that there exists no significant difference between mathematical and non-mathematical background pre- service teacher trainees on mathematical aptitude was not rejected. It means that Null hypothesis is accepted and shows that mathematical aptitude of mathematical and non-mathematical background pre-service teacher trainees on mathematical aptitude does not differ significantly, Thus, Stream does not affect the mathematical aptitude of pre- service teacher trainees.

Table No. 4: Test of significant difference between means of ST and Non-ST Category pre- service teacher trainees on mathematical aptitude

Category	N	Mean	Std. Deviation	S_{ED}	t	d*f*	Remark
ST	155	20.48	7.036	0.749	1.252	324.696	No-Significant
Non- ST	191	19.54	6.799				

The above table No. 4 shows the value of 't' is 1.252 of ST and Non-ST category pre- service teacher trainees on mathematical aptitude which is less than the table value 1.97 at 0.05 and 2.59 at 0.01 level of significance. Therefore, the hypothesis that there exists no significant difference between ST and Non-ST category pre- service teacher trainees on mathematical aptitude was not rejected. It means that Null hypothesis is accepted and shows that ST and Non-ST category pre- service teacher trainees on mathematical aptitude does not differ significantly, Thus, category does not affect the mathematical aptitude of pre- service teacher trainees.

FINDING OF STUDY:

Related to objective one: To Study the Mathematical Aptitude of pre- service teacher trainees of DIETs Sikkim. Investigator has done the content analysis of the questionnaire on the level of Mathematical aptitude of pre- service teacher trainees through physical mode. Investigator also found the value of mean and median on the variable of Mathematical Aptitude of pre-service elementary teachers is 19.96 and 20 respectively which are quite proximate to each other.

Related to objective Two: To Study the Impact of experiential learning approaches on Mathematical aptitude of pre-service teacher trainees of DIETs Sikkim. Investigator explained to pre- service teacher trainees about experiential learning approaches and instructed to apply this approaches to give the answers. Investigator analysed and known the positive value of skewness is 0.27. It revealed that data is skewed to the right and the distribution is almost symmetric. The excess kurtosis (-0.29) is a bit less than zero implies that distribution is slightly platykurtic. The observation leads to the conclusion that Impact of experiential learning approaches on mathematical aptitude scores of pre- service teacher trainees are normally distributed.

Related to objective Third: To Compare the Mathematical Aptitude in relation to Male & Female, Private & Government Management, Mathematical & Non Mathematical background and ST & NON-ST of pre- service teacher trainees of DIETs Sikkim. Investigator done the test of significant difference between means of pre- service male and female teacher trainees on mathematical aptitude and calculated the value of t which is 4.119. thus it is significant. Test of significant difference between means of pre- service government and private teacher trainees on mathematical aptitude and calculated the value of t which is 3.131 thus it is significant. Test of significant difference between means of mathematical and non-mathematical background pre- service teacher trainees on mathematical aptitude and calculated the value of t which is 0.540 thus it is not significant. Test of significant difference between means of ST and Non-ST category pre- service teacher trainees on mathematical aptitude calculated the value of t which is 1.252 thus it is not significant.

Major Findings of the Study:

- The study found that Impact of experiential learning approaches on Mathematical aptitude of pre- service teacher trainees of DIETs Sikkim is very high in respect to problem solving ability, developing the thinking skills, building the capability, developing the innovative ideas and creativity, developing the better understanding in pre- service teacher trainees
- The level of mathematical aptitude gets influenced in pre- service teacher trainees by gender variation and Management (Government Institution and Private Institution)
- The level of mathematical aptitude does not influence in pre- service teacher trainees by Stream (Mathematical and Non- Mathematical background) and category (Scheduled Tribe and Non-Scheduled Tribe)

CONCLUSION:

Experiential learning can exist through learning by doing process and it gained by individual's direct experience. Mathematical aptitude is a person's capacity to solve logical, intellectual, abstract, or any other practical challenge that arises in everyday life. Experiential learning is very effective methodology to understand Mathematical aptitude in teaching learning process through the experience which effects permanently in the minds of the students. The innovative teaching aids, projects, activity done in math's laboratory and field based experiences plays a vital role in the conceptualization process to learning better mathematical aptitude skills. Despite the fact that mathematical aptitude skills are very important for our cultural growth as well as our personal development, it is not a favorite subject among many pupils because it is taught by traditional and mechanical methods where no creativity or practical aspects are there. Students are rarely taught how to build mathematical calculating skills. They are not encouraged to improve their problem-solving skills or increase their mathematical thinking aptitude. So, it is very important to teach mathematical aptitude by activity, logically and through real life based example. Here comes the role of Mathematics teacher. A mathematics teacher should transact the knowledge amongst the students in such an entertaining way that the students may able to learn mathematics with some feeling of enjoyment. Imparting only theoretical knowledge does not work always. The best quality of teacher delivers his theory that inspires the learner more. The teacher should teach the learner not only through books and abstract as per his knowledge and experience. There are substantial numbers of Pre-service teachers in the state of Sikkim who belong to the tribal and non-tribal society and their teaching ability of mathematics can bring the huge change in society especially in terms of mathematics education. It will improve the quality of mathematical aptitude amongst the students of the state of Sikkim. The above findings also show that the mathematical aptitude level of pre-service teacher trainees has nothing to do with the stream like Mathematical and non-mathematical and category like Scheduled and Non-Scheduled Tribe, but it is influenced by the gender variation and Management. This study can be used by the state Government of Sikkim to design the better teacher training module so that Pre-service teacher may be equipped in mathematics education through experiential learning methods and can impart proper mathematical aptitude skill to the learners at primary level which can further improve the mathematics education at secondary and tertiary level.

Some of the important recommendations are given below:

- Learner should visit in local community and learn through experience.

- Learners should understand the concept rather learning the formula.
- Providing the facilities to the Institution by Management in respect to Infrastructure, Activity Lab, Learning resources etc.
- Problems of Mathematics may solve by activity based methods
- Teacher should adopt new methodology and techniques for better understanding foe learners.
- The trainings must emphasis on practical demonstrations and conceptual learning.
- Teachers should guide to learners in such a way. So interest can be developed in them and they may create new idea through experiential learning

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