

### **Mathematics Teaching at Primary Level**

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#### **Abstract**

*Mathematics is as old as human civilization and so it has contributed to the development of almost every branch of knowledge. Theory of Mental discipline of Transfer of Learning considers mathematics a subject which trains the human mind. As it contains Utilitarian, Intellectual, Social, Vocational, Aesthetic and Disciplinary values, its study has been made compulsory upto Secondary School level. It has great cultural value as Indian mathematicians have given birth to many mathematical concepts. Laplace failed to understand how invention of zero was missed by the world, especially from Archimedes and Apollonius. Mathematics in India can flourish properly only if its teaching is taken care of at early stage. From development point of view, Primary School is the stage where its teaching needs to be taken seriously. Teachers at Primary School level are the torch bearer of innate power development of students in mathematics. Development of mathematical talent at this stage will certainly help the nation to have a sound pool of mathematician and ultimately human resource. Primary School teachers will be able to do this important but challenging task only if they know the learners, they practice and internalize methods of teaching, teaching skills, mechanism of evaluation, techniques of making students attitude favorable towards mathematics. He has to learn to channelize creative talent of the learners and has to undertake action research in mathematics. Setting for Cooperative, Learning, Use of Constructivist Approach and Grouping the students for framing & solving the questions to ask & answer to opposite group may create more scientific environment of learning in the mathematics classrooms. If India has to gain its past glory in mathematics today it has to take teaching of mathematics seriously from the early stage of Primary Schooling; and in this connection education of teachers teaching at Primary School stage must be given due importance it deserves.*

#### **Keywords**

Mathematics Teaching, Primary Level of Schooling

#### **Introduction**

Mathematics is considered as one of the important subject of studies. It is as important as the language is. Due to its Utilitarian, Intellectual, Social, Vocational, Cultural, Disciplinary and

Aesthetic values its study has been made compulsory up to Secondary level. It has high correlation with life and also with different branches of knowledge. It is a subject which disciplines the mind and makes the study of other subjects easy by training the mind. According to Faculty Theory of Psychology study of mathematics has great potential to train human mind. The Mental Discipline Theory of Transfer of Learning also puts emphasis on the study of Mathematics. Mathematics trains the human being mentally and due to this training transfer is facilitated. IGNOU (2009) through its Self Instructional Material on Educational Technology developed for M.A. Education Program has concluded, "There were two forms of mental discipline theories. One form of the mental discipline of theory emphasized that mind could be best trained by studying the classical language and the second form of mental discipline stressed that the mind was like muscle and could be strengthened with continuous and vigorous exercise. According to mental discipline theory, subjects like Mathematics, Latin, Greek and Sanskrit should be taught to students so that these subjects help in strengthening various faculties of mind." Mathematics is as old as human civilization and so it has not developed alone as a branch of knowledge, but has given birth to many more branches of knowledge. Its study has greatly contributed to develop almost all the branches of knowledge.

Psychologically primary school students fall in the category of childhood and it is also categorized as later childhood by some psychologists. This period usually ranges between 6 yrs. to 12 yrs. of age. From developmental point of view it may be considered as the most important phase of human development. During this period some vital Intellectual and Emotional development takes place besides other development such as Physical, Social and Moral. As stated above Mathematics has great Disciplinary value to train human mind and this is the period of human life which needs training of mind more than that of any period of human development. Kapur, J.N (1995) has rightly expressed, "Mathematics is not ethically neutral. It inculcates values of honesty and integrity. One cannot be dishonest in a proof because it will make the proof invalid. In fact mathematics provides training in the virtues of objectivity, impartiality and fairness. Here we have to use only the information given to us in the form of axioms and nothing else. We have to speak truth and nothing but the truth. No personal human bias can be allowed to interfere in mathematical calculations which are the same for all individuals of all ages of all countries." Mathematics not trains intellectually only, but it trains emotionally too. This training of mind and inculcation of disciplinary value among the Primary School students through the teaching of mathematics is precious from the point of view of Human Resource Development. Any desired development does not take place as its own and this is not easy task to perform that is why teaching of Mathematics is considered difficult than teaching of any other school subjects. It is relevant to quote the bold statement made by Kapur, J.N (1995) in this context, "If however the state wants that the beautiful heritage of mankind that is represented by mathematics is made available to the general public so that everyone can enjoy this wonderful man-made world of mathematics, then it should give almost all these posts to those mathematicians who will not necessarily create a great deal of mathematics at the highest level, but who have the gift of communicating the existing mathematics and the process of mathematics in an understandable and enjoyable fashion. If the general public feels that it has been unduly denied the pleasures of mathematics and that its children are being brought up in a climate of fear of mathematics and if it wants its children to learn mathematics as an enjoyable experience, then all the professorships should go to such persons who meet these requirements." Teaching of Mathematics becomes even more difficult at Primary Level as psychology tells that the reasoning takes place only in the later part of childhood development which is the basis of mathematics learning.

Teaching of mathematics as experts suggest need to be made effective especially in this age and in the process of effective teaching some important factors must be taken into account. Following are the factors that may lead to effective, interesting and enjoyable teaching of Mathematics.

### To Know the Learner

It is the first and foremost duty of a teacher to know the learner and his innate nature and tendencies. Kumar, Lalit (2003) claims, "As teaching is a process of stimulating, directing, and guiding the learner, the teacher needs an intensive knowledge and understanding of the physical, mental and emotional potentialities of those whose educational activities s/he hopes to direct and guide. Equally important is a thorough understanding of the psychological principles that govern human behavior, especially in relation to teaching and learning process. The basic principles of teaching deal with the nature of the child to be educated. The history of education reveals to us that Rousseau was among those great educationists to insist that education should be based upon the nature of the child." To know the learner is related to the developmental stages of the learner, his motivation, interest, attitude, ability, etc. Primary School stage is a period of development which takes place in many dimensions and teachers of subject like mathematics need to know about several changes taking place during the period. It is essential to understand the developmental pattern of the Primary School students specially their Cognitive/Intellectual and Emotional development. Emotional development is related to the development of attitude, belief, interest which is planned and natural both. Planned emotional development can be made by showing belongingness, helping the students in doing and making the students capable to internalize the concept. Knowledge of Cognitive development properly makes the teachers to illustrate and present the mathematical concept scientifically and psychologically.

Bruner suggests that primary students are not in the symbolic stage and so to teach them with the help of figure or visual objects are essential to make them understood. Piaget has classified cognitive development as sensorimotor (Birth – 2 years), pre-operational (2-7 years), concrete operational (7-12) and Formal operational (12 and up). For Primary School students concrete operational stage is the important stage of cognitive development. Hilgard, Atkinson and Atkinson (1975) write about the characteristics of concrete operational stage of Piaget, "Piaget calls this period the concrete operational stage because, although the child is using abstract terms, he is doing so only in relation to concrete objects. Not until the final stages of cognitive development, the formal operational stage, which begins around 11 or 12, is the youngster able to reason in purely symbolic terms. Vaidya, Narendra (1970) has written about the characteristics of children under concrete operational stage of Piaget in his own words as, "It is for the first time that the operations carried out by the children of this age group become reversible. This means that if they think it necessary, they can easily return to the starting point of their thinking. They can break the given object into its parts, combine the various parts to make a whole and even consider and reason about the various parts and the whole object at the same time. Thinking is no longer governed by the perceptual considerations of the situation. He tries to find sense in a confusing situation by seeing the problem from the various view points. The child thinking is still tied to the concrete situation."

Bruner's concept attainment model is especially useful for the teaching of geometry which suggests to teach geometrical concepts on the basis of their common characteristics or attributes.

Really it is difficult to teach mathematics without understanding and knowing the primary school students. It will not be out of the context to quote children's preference in Teacher behavior of Jersild mentioned by Mussen and Conger (1956), "In a study of children's preferences in teacher behavior, Jersild (38) found that children in our culture tend to prefer teachers who possess the following characteristics : (1) human qualities – kind cheerful, natural, even-tempered; (2) disciplinary qualities – fair, consistent, impartial, respected; (3) physical appearance – well groomed, nice voice, and generally attractive; (4) teaching qualities – helpful, democratic (give children voice in class affairs), interesting, and enthusiastic. The same sorts of characteristics seem to be preferred by older as well as young children (29, 44)."

## Methods of Teaching Mathematics

In the pedagogical study of mathematics, we mainly concern ourselves with two things; the manner in which the subject matter is arranged and the way in which it is presented to the pupils. The former is called method and the later mode. There are various methods and modes of teaching mathematics which can be studied from the published reports of experience of others or can be known by personal consultations with experienced teachers by observation of teachers at work or by actual teaching. How to teach?' is really a difficult question to answer. Teaching is generally considered as an art and methods are the ways to understand and practice the art. Primary school stage is a period at which students are conscious and fearful to the concept of mathematics and if the concepts are not presented by using proper method of teaching it can mar the courage and command of the learners. To know all the important methods of teaching by the teachers is an essential requirement to make a rational choice. Kumar, Lalit (2004) expressing dissatisfaction over knowledge of mathematics teacher in methodology has rightly wrote, "Usually mathematics teachers do not adopt the methods of teaching in accordance with the nature of the subject matter and the level of the students. This is due to the fact that they often do not have command over different teaching methods and therefore find it difficult to select most appropriate method in a given situation."

It takes some young teachers a lot of time to learn the lesson that the thing that is important is not what they give out but what the students take in, that their work is teaching and not preaching. A method makes the matter simple and leads the students assess the concept, and if the method fails it means the method is not suitable to the situation. Teachers should learn and internalize to be capable to choose the suitable method to present the chosen mathematical concept; otherwise the young mind may surrender by being puzzled. Inductive-deductive, Analytic-Synthetic and Laboratory methods are more used in the teaching of mathematics though Lecture, Demonstration, Project and Heuristic methods are also employed in the light of the demand of the concept to be developed. What is more import is to mastery over these methods and its selection as per the demand of the situation. Mere knowledge is not enough, effective application of these methods is essential to be a better primary school mathematics teacher. In this connection editorial HT[2013]has rightly suggested, "India needs to revamp and build a separate cadre of teachers who will be trained to teach at the primary level." It is perfectly true to the teaching of mathematics too.

To develop understanding among the students leaner- centered methods like buzz session, project, problem-solving, group-discussions, etc. have been suggested. Some teacher educators have also suggested co-operative learning for the development and understanding of the

mathematical concepts. Mehra Vandana & Thakur, Kalpana (2008) has expressed, "Mathematics is conceptually dense. Cooperative learning can be used to promote classroom discourse and oral language development. Mathematics vocabulary and mathematical symbols must be understood to work problems as there are no contextual clues to aid understanding. In cooperative learning activity, vocabulary and symbolic understanding can be facilitated with peer interactions." Chandrasekhar, K & Kumar, Santosh (2006) has also suggested the mathematics and language teacher to use and practice innovative methods of teaching, "The teacher should try to use innovative methods and practice to enhance the achievement level of the students." Adoption of constructivist approach in teaching mathematics provides opportunity to the students to understand mathematical concepts by constructing the related concepts as their own. What Prabha, Shashi (2010) has concluded for science education is also true to the mathematics teaching, "constructivist classroom places a child in the centre position of the classroom. Ideas initiated by students are accepted and encouraged. Students opinion are value... Focus is given to what students are learning rather than what the teacher is teaching. They are involved in all the activities of classroom and at all stages of teaching learning processes."

### **Skills and Techniques of Teaching Mathematics**

Skills and Techniques of teaching help the students to understand the concept easily. If we define triangle without drawing the figure the students will not be able to understand. If we do not develop a mathematical concept by putting some questions before the students the students may not internalize the concept. In the other hand poor students may not be able to know and understand the fact or concept they have not been able to know or understand due to some reason or other. How to frame questions? 'How to ask questions' and 'How to distribute the questions among volunteer and non-volunteer students' are the questions whose answer the Primary School mathematics teachers have to search. A good teaching is the teaching having maximum or at least optimum pupil participation, pupil participation cannot be increased without increasing the number of questions to be asked. Framing of question is meaningful only if it is asked and distributed properly and so the teacher must know and practice how to frame, ask and distribute questions. Besides questioning skill the primary school mathematics teacher should know how to manage the responses of the students, how to reinforce, how to vary the stimulus to gain maximum impact, how to illustrate with suitable examples and how to explain.

Task of the primary school mathematics teacher remains incomplete if he/she do not learn the skills and techniques of writing Instructional and Behavioral objectives, organizing the content, creating set for introducing the lesson, introducing the lesson, using teaching aids, pacing of the lesson, promoting pupil participation, use of blackboard, achieving closure of the lesson, giving assignments, Evaluating the pupil's progress, diagnosing pupil learning difficulties & taking remedial measure and managing the class. Mathematics is a subject which needs a lot of drill and practice. To draw angle, to construct a geometrical figure, to learn to make sequence, etc. are the tasks that primary school students find difficult and if the teacher teaches without using proper skills and techniques of mathematics it becomes even more difficult for them to understand. Press Trust of India referring a study has clearly stated that students learn mathematics better when their teachers use hand gestures. We use gesture as part of the teaching skill-Stimulus Variation.

Educational Technology has given birth to two brilliant ideas (i) specification of objectives in behavioral terms and (ii) objectives based evaluation. To teach as per the specified behavioral objectives, is the crucial task the primary school mathematics teacher has to perform. They can be successful in their act only when they know, understand and practice writing objectives in behavioral terms and explaining the importance of objectives specification in behavioral term. Kumar, Lalit (2001) concludes, "Objective's specification provides the teacher specific direction and if objectives are specified in terms of behavioral changes the task of teacher becomes easy because for him selection of teaching activities become more specific and purposeful."

Teacher through objectives based evaluation can measure the impact of his teaching in one hand and can know the students learning difficulties in the other. Continuous and comprehensive internal evaluation, criterion referenced evaluation and other ways of evaluation in conscious and unconscious manner be known to the Primary School mathematics teacher. Internalization of these techniques and skills will not strengthen the teaching capabilities of the teachers only, but it will also make them courageous to teach in any mathematical situation and to any mathematical concept. Putting emphasis on the need of continuous comprehensive Internal Evaluation Dewasthalee, R.B (1990) has summarized, "One of the basic principles of sound educational evaluation is that he who teaches should evaluate, as he knows what is expected from the students and, therefore, is in the best position to judge their progress. Educational evaluation has to be an integral part of the teaching-learning process. Internal assessment is useful in putting this principle in actual day-to-day practice. Growth and development are continuous and, therefore, educational evaluation also has to be continuous to determine, if there is any growth and development and whether it is in the right direction. Internal assessment, bring continuous, follows this principle faithfully." Kumar, Lalit (2008-09) have expressed to consider evaluation in mathematics at Elementary School Level seriously as it has its bearing on all the aspects of Learning mathematics. He has categorically suggested taking some measures to make evaluation in mathematics at elementary school level effective and meaningful as to make the attitude of students favorable towards mathematics and its evaluation, to employ unconscious and oral evaluation, to employ Internal and criterion-Referenced Evaluation and to train the Elementary School Teachers in evaluation techniques.

### **Attitude towards Mathematics**

What Shakespeare told, there is nothing good or bad only thinking makes it so, is enough to express the importance of attitude. Attitude matters in the development of interest, motivation, enjoyment, freedom from fear and ultimately to the development of study habits and skills of reading. In one of the studies Kumar, Lalit (1994) has taken Enjoyment, Motivation, Importance, Freedom from Fear as dimensions of Attitude Towards Mathematics. Kumar, Lalit (1998) has defined "Attitude towards Mathematics is an internal state which affects an individual choice of action towards mathematical objects, mathematical events or persons related to Mathematics. More precisely attitude towards mathematics is a delimited totality of one's behavior with respect to mathematics." Attitude has its bearing on almost all the aspects of human behavior. It initiates, regulate, modify and improve one's action and activities. A teacher can never be a good teacher of mathematics unless he/she does not try to make learners attitude favorable by using positive, interesting and motivating comment. To scold, to discourage and to pronounce in a negative manner is what one can say as the crime from the part of a teacher, especially when these actions

make the learners attitude unfavorable towards the mathematics or towards any concept or person related to mathematics.

Kumar, Lalit (1998) has found in his study that attitude towards mathematics has its bearing on achievement in mathematics and has concluded in the same study that attitude towards mathematics is significantly correlated with achievement in mathematics. Saha, Subrata (2007) has found the relationship in the same manner. Singh, Priyanka (2009) has found that attitude towards mathematics is significantly correlated with achievement in mathematics. She concludes, "Attitude towards Mathematics is positively and significantly correlated with achievement in mathematics. High attitude towards mathematics group is significantly superior in their achievement in mathematics in comparison to the low attitude towards mathematics group, on all dimensions of attitude towards mathematics, except the social dimension."

Kumar, Lalit (1994) has also found significant relationship between Attitude Towards Mathematics and mathematical creativity. He has summarized that the group with high attitude towards mathematics is superior in mathematical creativity than the group with low attitude towards mathematics. Panchalingappa, S.N (1995) has found in his research study that poor attitude towards mathematics is the cause of underachievement in mathematics.

Attitude towards Mathematics is an important concept of study to improve the teaching and learning of mathematics and so the teacher of the subject can internalize the fact for becoming efficient and effective. Kumar, Lalit (1996) has stated in this context, "In the process of identifying the goals of mathematics education most of the researchers, policy makers, teachers, teacher educators and scholars have made a mention of attitude towards mathematics. A mathematics teacher can provide proper atmosphere in the classroom to inculcate favorable attitude towards mathematics among the learners who blossom into citizens. This is possible only when the teachers themselves possess favorable attitude towards mathematics irrespective of their subject of teaching." It is unfortunate what Kumar, Lalit has concluded in the same study, "A few primary school teachers possess high favorable attitude towards mathematics."

### **Fostering Mathematical Creativity**

Barron (1961) defines creativity as making new combinations from already existing objects and events. Torrance defines it as divergent thinking and differentiates it from convergent thinking (Intelligence). Divergent thinking makes the person capable to explore more and more ideas or solutions against a given problem or situation. In the language of measurement creativity is the sum total of the scores obtained on its dimensions, i.e., Fluency, Flexibility and Originality. Fluency is right and relevant responses, Flexibility is the approach by using which responses have been made and Originality is the uniqueness or novelty of the response. In fact, this originality is the heart of the concept creativity. No nation can develop without sharpening and using creative talent of its human resource. It is unfortunate our mathematical talent is being more properly used by USA and other nation. From mathematical point of view, India is lagging behind today though American President B. Obama recognizes mathematical ability of Indians and hope that India will excel in mathematics in years to come in the way it excelled during ancient period. Laplace has rightly been quoted in mathematics Newsletter (1993) as saying, "It is India, which gave us the ingenious method of expressing all numbers by means of ten symbols, each symbol receiving a value of position as well as an absolute value, a profound and important idea which appears so simple to us now that we ignore its true merit. But its very

simplicity, puts on arithmetic in the first rank of useful inventions and the appropriate the grandeur of this achievement to more when we remember that it escaped the genius of Archimedes and Appollonuis, two of the greatest men produced by antiquity."

Our classrooms are not developing mathematical creativity of the students in the way it needs to be. Teacher is the guiding force of any type of development and primary school stage is the age at which the care and development of mathematical creativity be taken into account seriously. Kumar, Lalit (1994) has clearly explained the need of development of creative talent in mathematics, "Creative thinking is essential for solving problems, and solving problem is necessary for survival and for achieving an abundant life. Failure to solve problems lead to frustration, and frustration leads to aggression, violence and war. Creativity in fact is a vital ingredient in most of the decision making processes. India, like any other country, aims to raise the standard of living of its people and the achievement of this ideal is contingent upon rapid Industrialization, Utilization of its natural resources and technological advancement. It is for this reason there exists an intense demand for identification and nurturance of creative talents."

Primary school mathematics teacher needs to know what mathematical creativity is and how mathematical creativity can be developed. What Singh, Bhoodev (2003) has quoted in his research paper in the name of Balka is very much needed for the Primary School teachers to understand mathematical creativity and its measurement/development, "Balka has developed the following criteria for measuring creative ability in mathematics : (1) The ability to formulate mathematical hypotheses concerning cause and effect in a mathematical situation. (2) The ability to determine patterns in mathematical situations. (3) The ability to break from established mindsets to obtain solutions in a mathematical situation. (4) The ability to consider and evaluate unusual mathematical ideas, to think through their consequences for a mathematical situation. (5) The ability to sense what is missing from a given mathematical situation and to ask questions that will enable one to fill in the missing mathematical information and (6) The ability to split general mathematical problems into specific sub-problems."

### **Action Research in Mathematics**

Fundamental Research is the research which contributes to the fund of knowledge. It needs a lot of expertise and sophistication. Action research does not need more expertise and sophistication and is useful to the Primary School mathematics to a great extent. It helps in solving the day to day mathematics related problems. Why the students are getting difficulty in understanding the word-problems? Why a student is specific backward in mathematics? Why the students are under-achiever in mathematics and like questions can be answered by the primary school mathematics teacher if they undertake action research. They have to be able to identify problems to undertake action research, they have to learn to write action hypotheses and they have to know the process of conducting action research. Action research is the most important research to solve the problems faced by the teacher and students in the boundary of the school. This will not make a teacher better researcher too, but will create a healthy atmosphere in the school for teaching and learning. Kumar, Lalit (1998) has felt need of action research in mathematics desperately and has suggested some area of mathematics where action research may be undertaken by the school teachers as Arousing and Maintaining Interest in Mathematics, Presentation of Content Matter of Mathematics, Drill Work and Home assignment in Mathematics, Examination and Evaluation in Mathematics, Methods and Techniques of



Teaching Mathematics, Individual Differences in Mathematics, Use of Teaching Aids in Mathematics, Mental and Oral work in Mathematics, Diagnosis and Remedy in Mathematics, Teacher's personality and Effectiveness and Creativity and Co-curricular Activities in Mathematics. Problems for action research can emerge only if the teacher pays direction to his/her research thought. Any research problem does not emerge in vacuum, neither it is being sold at any counter or shop.

Teachers of mathematics must be aware about the steps of a action research and be capable of framing hypotheses and reaching at a conclusion by analyzing the data. If they are not aware about the process of action research the study conducted may not yield desirable result. Sharma, R.A (1984) has mentioned six steps of action research as Identification of Problem, Defining and Delimiting the Problem, Analyzing causes of the Problem, Formulating the Action hypotheses, Design for testing the Action hypotheses and Conclusions of Action Research Project.

## Sum Up

Teaching mathematics may be difficult but it is challenging and interesting. Knowing child's potential, practicing methods of teaching and using techniques of evaluation, development of teaching skills, undertaking action researches and fostering mathematical creativity of the students are the challenging field of mathematics education. Proper study and utilization of these area can lead a teacher to a state where she/he can enjoy teaching of mathematics. Only in the situation of enjoyment of teaching she/he will be able to make teaching of mathematics activities based as suggested by NCF (2000), "Mathematics learning should be imparted through activities from the very beginning of school education, i.e., from the primary stage itself. These activities may involve the use of concrete materials, models, patterns, charts, pictures, posters, games, puzzles and experiments." Teaching of Mathematics at primary school level trains the students mind and this act has wider impart on life and study of other concept. In fact this is one of the vital objectives of teaching mathematics. NCF (2005) pronounces, "Developing children's abilities for mathematization is the main goal of mathematics education. The narrow aim of school mathematics is to develop "useful" capabilities, particularly those relating to numeracy – numbers, number operations, measurements, decimals and percentages. The higher aim is to develop the child's resources to think and reason mathematically, to pursue assumptions to their logical conclusion and to handle abstraction. It includes a way of doing things, and the ability and the attitude to formulate and solve problems."

No doubt task of mathematics teacher is difficult, but no nation and society can develop without proper development of its own mathematical potential to a great extent. Utilitarian, Vocational, Intellectual, Social, Aesthetic and Disciplinary values of mathematics reflect that it trains mind and prepares for the future Primary School mathematics teachers have to take their task seriously as this is the right time of training mind, habit and talent. It is relevant to mention Edwards, Tryon quoted in Mathematics Newsletter (1993), "The study of mathematics cultivates the reason; that of the languages at the same time the reason and task. The former gives grasp and power to the mind; the later both power and flexibility. The former, by itself, would prepare us for a state of certainties which now ever exists; the later for a slake of probabilities, which is that of common life. Each by itself does but an important work; in the union of both is the best discipline for the mind and the best mental training for the world as it is."

Whenever we talk in terms of teaching it is the teacher who has to play the role of torch bearer and that is why the New Education Policy (1986) and Kothari Commission (1966) have given top position to the teachers by saying that no nation/people can go beyond the level of its teacher. Teaching starts with the teacher and gets the level not higher to the level of the teacher. Teaching takes place due to teacher; it improves if the teacher improves either in terms of knowledge or skills & techniques. Considering the efficiency and effectiveness of teacher essential for better teaching Banerji, R (2012) has rightly suggested some ways to improve teaching of mathematics at middle school level as special considerations for word problem, taking care of back benchers, opting conversational style of teaching, creating competition among divided groups of learners to answer & ask questions and raising more questions to increase pupil participation.

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