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GRT NEURO-LINGUISTIC PROGRAMMING AND PROBLEM SOLVING ABILITY

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Abstract:- This study is an attempt to discuss the neuro-linguistic programming and problem solving ability. The teaching of mathematics presents numerous problems for the teacher of mathematics. For effective learning of Mathematics subject, constant and continuous understanding is a must. The learner can attain the goal. Only after overlooking his distractions, deviations, disturbances, defects, and discriminating and determining the facts previously. Hence a necessity arises to know about the effective and innovative Neuro-Linguistic Programming approach in problem solving ability. NLP helps to bring out the easiness in thinking process. Students develop understanding and they can monitor their own learning. They will be free from fear about Maths and enjoy maths while doing word problems. NLP evokes thinking and reasoning about Mathematical ideas. Students find out the place where they are in comprehension and they will be ready to upright their position in Mathematics.

Keywords: Neuro-Linguistic , Problem Solving Ability , Mathematics subject, Mathematical ideas.

INTRODUCTION:

Education is a process of bringing about changes in the individual in desired direction such as development of interest, attitudes and skills to carry out the certain activities. The teaching of mathematics presents numerous problems for the teacher of mathematics. The methodology adopted by the teacher in the classroom needs frequent change as the student's aptitude and attitude vary year after year. Education is a continuous process on developing the personality of an individual. It aims at the overall development of teaching techniques to solve the problems. For effective learning of Mathematics subject, constant and continuous understanding is a must. The learner can attain the goal. Only after overlooking his distractions, deviations, disturbances, defects, and discriminating and determining the facts previously. Hence a necessity arises to know about the effective and innovative Neuro-Linguistic Programming approach in problem solving ability. In the words of the National Council of Teachers of Mathematics (NCTM): A conceptual approach enables children to acquire clear and stable concepts by constructing meaning in the context of physical situations and allows mathematical abstractions to emerge from empirical experience. A strong conceptual framework also provides anchoring for skill acquisition. Skills can be acquired in ways that makes sense to children and in ways that result in more effective learning. A strong emphasis on Mathematical concepts and understanding also supports the development of problem solving.

WHAT IS LEARNING

Learning is a process consists in the transformation through experiences of the behaviour of an organism in a manner that is directly subservient to the maintenance of its basic circularity. Learning occurs in a manner such that for the observer the learned behaviour of the organism appears justified from the past, through the incorporation of a representation of the environment that acts, modifying its present behaviour by recall, notwithstanding this, the system itself function in the present, and for it learning occurs as a temporal process of transformation. The learning nervous system is a deterministic system with a relativistic self-regulating organization that defines its domain of interaction in terms of the states of neuronal activity that it

maintains constant, both internally and at its sensory surfaces, and that specifies these states at any moment through its functioning, and through the learning (historical transformation) itself. All changes in the nervous system during learning must occur without interference with its continued function as a self-regulating system.

NEUROCOGNITIVE LEARNING

Learning is not a process of accumulation of representations of the environment; it is a continuous process of transformation of behaviour through continuous changes in the capacity of the nervous system to synthesizing. As a consequence, the quest in the study of the learning process must answer two basic questions; What changes can a neuron undergo (in any of the component parts) which it can maintain constant for a certain time, and which modify in a definite manner its possible participation in different configurations of relative neuronal activity. What organization of the nervous system would permit continuous changes in the relative activity of its anatomical components, as a result of different concomitances in their activity, and still permit the synthesis of a conduct that is defined only by the states of relative neuronal activity that it generates, and not by the components used. The human brain is the centre of the human nervous system and is a highly complex organ. Most of the expansion comes from the cerebral cortex, a convoluted layer of neural tissue that covers the surface of the forebrain. Especially expanded are the frontal lobes which associated with executive functions such as self-control, planning, reasoning and abstract thought. The neo cortex is the centre of higher order thinking, learning and memory.

Effective teaching in problem solving ability is effective precisely because they are brain based. The first three years of a child's life should be filled with enriching experiences provided by the parents or caretakers. These experiences create connections in the brain that form the foundation for spoken language, reading, comprehension of written language writing and problem solving. Dr. Harry Chugani, a neurologist using PET scans, and MRI's has discovered how the brain can be altered permanently due to lack of parental nurturing and enriching experiences. The brain prefers to input information in a hierarchy depending on the number of senses engaged. The brain takes information in symbolic input found in the form of letters that create words, numbers that create maths problems, equations and formulas found in maths is the most difficult for the brain because it engages only one or two of the 19 senses. The limbic system is the gatekeeper for the brain and filters all information entering. Parts of the limbic system process the information depending on whether or not the person "feels" safe. Teachers can help students understand their emotions on the ability of cerebral cortex to use the information to build mental programs and enhance the ability of the cerebral cortex to process information and create permanent program.

Teachers have a noble role in imparting knowledge to the innumerable members in a society. The teacher plays an important role in the educational process. On the caliber of the teacher depends the success with which new methods are employed and adopted. Successful and effective teaching requires two basic things. The teacher should be competent to teach the subject allotted to him at the same time, he should follow good techniques of teaching to make the learning fruitful. The learner can attain the goal, only after overlooking his distractions, deviations, disturbances, defects, and discriminating and determining the facts previously. Hence a necessity arises to know about the effective and innovative NLP Strategies in problem solving ability. Neuro-Linguistic Programming was developed at the University of California at Santa Cruz in the 1970's. The emergence of NLP happened between 1972 and 1981. NLP has since achieved popularity as a method for communication and personal development. It is used by professional practitioners of many kinds – managers, trainers, sales people, market researchers, counselors, consultants, medics, lawyers and more.

Neuro-Linguistic Programming(NLP)

The word Neuro linguistic programming can be broken down to three distinct words: neuro, linguistic, and programming. Neuro refers to the brain and neural network that feeds into the brain. Neurons or nerve cells are working units used by the nervous system to send, receive, and store signals that add up to information. Linguistics refer to the content, both verbal and nonverbal, that moves across and through these pathways. Programming is the way the content or signal is manipulated to convert it into useful information. The brain may direct the signal, sequence it, change it based on our prior experience, or connect it to some other experience we have stored in our brain to convert it into thinking patterns and behaviors that are the essence of our experience of life.

Neuro-Linguistic programming is a technique that shows people how to change or "reprogram" their thoughts, feeling and actions by simple mental exercises. NLP has been called software for the brain. People use Neuro-Linguistic Programming to understand themselves and others and be more flexible and effective communicators. Specific NLP tools can be used to motivate, inspire, get goals, improve performance, change beliefs, resolve phobias, strengthen relationships, focus attention, sell ideas, resolve conflict, break unwanted habits and enjoy more and better choices.

Maths pedagogy involving higher-order questioning, challenge, problem solving and collaborative working may be a way of improving attainment in adult numeracy learning, however, such strategies may be less effective if the relationship between teacher and learner does not reflect sensitivity to attitudes, beliefs and emotions (areas which advocates of NLP claim effectiveness in). The present study investigates. The principles of effective adult numeracy teaching, as defined in the National Centre for Excellence in the Teaching of Mathematics 2008 report (NCETM, 2008), and which define a more innovative approach to pedagogy in adult learning, formed the basis for the curriculum, with a particular emphasis on higher-order questioning: Building on existing knowledge, Exposing misconceptions, Encouraging reasoning rather than answer

getting, Using rich collaborative tasks. Creating connection between topics, both within mathematics and to the real world, Developing mathematical language and Understand what has been learned and how. The Learning is an active process in which meaning is accomplished on the basis of experience. We each construct a unique image by combining information we receive from our sense organs.

Problem solving is considered as a heart of mathematic learning, because the skill is not only for learning the subject but it emphasizes on developing thinking skills and methods as well. Students can apply their knowledge and problem solving skills to be useful in daily life since the processes of solving the mathematic problem are similar to the general problem solving. Mathematical problem is the tool used as not only to help students develop their thinking ability but it also helps them to develop their basic skills of solving the problems especially a problem in daily life. The goal of teaching Mathematics to be effective was that the students were able to solve its problem.

According to Vygotsky thinking involves the use of words and notions. Speech is a tool to develop thinking. Hence, language acquisition in the learners their main concern should be to scaffold them on their way towards achieving mathematical competences.

The teacher's task is to enable the students to develop their individuality different process of knowledge building and meaning construction as well as positive attitudes. Hence, the teacher of Mathematics one who can control his/her class not through fear or high handedness but by virtue of his interest in the learner, good command on the subject matter and the ability to present it interestingly and effectively. Within NLP our thinking and communication patterns are linked to just three of the main human senses: Visual(V), Auditory(A) and Kinaesthetic(K). Whilst Gustatory and Olfactory are primary senses, they do not play a major role in our thinking and communication patterns and are generally included with Kinaesthetic. A fourth pattern, which is not directly linked to any of the human senses is Auditory Digital (Ad) and focuses on someone's preference for using discrete words, facts, figures and or logical processing. It could be deemed advantageous if mathematicians had a strong auditory digital preference. NLP techniques enable us to demonstrate to students their own inner learning processes. This brings them much closer learning, manage their own rich internal software their images, sounds and feelings. Bit by bit they will come to understand and even learn how to control the way they think. In short they will learn how to learn. By using specific language to change how our mind represents our internal world (thoughts), we can transform our external world (behaviour) to achieve greater personal success.

CONCLUSION

NLP helps to bring out the easiness in thinking process. Students develop understanding and they can monitor their own learning. They will be free from fear about Maths and enjoy maths while doing word problems. NLP evokes thinking and reasoning about Mathematical ideas. Students find out the place where they are in comprehension and they will be ready to upright their positin in Maths. They will be good thinkers and good doers. Successful and effective teaching requires two basic things. The teacher should be competent to teach the subject allotted to him at the same time, he should follow good techniques of teaching to make the learning fruitful, the learner can attain the goal. Teachers have to concentrate not only on gifted children but also on the slow learners. By identifying each groups, they can plan their learning strategy accordingly. The recent neuro scientific developments have provided a chance to explore the problems in learning and the causes which are all hitherto unknown and unavailable to the teachers.

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