DEVELOPMENT OF TEACHING LEARNING MATERIAL

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ABSTRACT

At the primary level, teaching innovatively makes task interesting and holds the child’s attention in learning content areas in language, maths and science by using concrete aids, but at the secondary level there is transition from dependence to independence so the teacher has to move from teaching through concrete materials to teaching of strategies which will help the students to learn their own. Therefore, using concrete aids and strategies as TLM will satisfy both instructional and nurturing objectives of teaching.

INTRODUCTION

The fundamental goal of schooling is to help students develop the skills they need to function in society related to content areas, to specific jobs and to affective social behaviours. Teachers and other people who work in schools help students develop these skills. In a study by Khan (1989) the quality of teachers using appropriate strategies to make the content interesting and effective was considered most important quality of a successful teacher. The child centered and activity based approach should be the main strategy of curriculum transaction to make the learning meaningful and joyful especially for children with special needs as they are unique. The curricular contents, books, instructional materials, classroom and teacher should serve as means to the pupil’s development and not as an end in themselves dominating over him. The child centred approach should help the child increase self learning which means that teachers do not make a child but they create such guidance. Children love to create with their hands and as they do so, they explore the environment with their senses. They are coordinating and controlling their muscles. So providing concrete areas is as follows:

Language

To enhance language learning one must communicate as much as possible with the children. Conversations about familiar things that interest young children are a critical tool in helping them to learn communication skills. Use language experience approach i.e. begin with selecting content based on what the child does or says. Teacher activities could include talking about objects, events, people which the children have experienced. Playing together with toys and describe the toys and combine action with language. Use movement activities and games to develop receptive and expressive language and sequential memory. As one proceeds to reading and writing use of multisensory approach along with pictures and model will help learning.

Maths

Use of concrete material is required to learn the abstract concepts. Playing with coins, ropes, ladder, ball, leaves, stone and chalk etc and talking about morning, afternoon, lunch-time etc. can be used for developing concepts
like number, number value, time, 1st last and other such mathematical operations. The play session, should be structured. After the initial exposure to a variety of stimuli from the environment, one must proceed to paper pencil work.

Science

Science is best taught through the exploration of the environment rather than being confined to the classroom. Maximum utilization of environmental resources should be made. The attitude of discover, the zeal for learning by doing and techniques of problem-solving can be inculcated in the students through appropriate usage of teaching - learning materials. Project work in science through peer - tutoring and co-operative learning helps understanding science experiments.

At the secondary level there is transition from dependence to independence. So the teacher has to move from teaching through concrete material to teaching of strategies which will help the students to learn on their own. Also the vastness of content at this level restricts the teachers in the use of concrete aids all the time. The use of strategy training is essential at this stage. A systematic plan for obtaining, processing and using of information should be taught. Students with disabilities should be trained to follow a step by step procedure to acquire teacher presented content. Strategy training can be used effectively by teachers not only in academic areas but also in social skills for an overall personality development of the child. The teachers can model the strategy, can show the students what they expect them to do. They can teach learning strategies like mnemonic devices, directly explaining how and why student's responses are right or wrong and the processes that must be used to complete the task. It is important to check that the students understand what they are supposed to do. Self monitoring and self correction are used as techniques in which the student acts as an observer for their own behavior.

Few of the strategies developed on the basis of research studies have been discussed in this paper.

In a study (Mehta, 1998) as strategy was developed to help students develop Language Comprehension. The strategy was named RUHHARS. A passage is given to the student to read and the in the end he is asked questions related to it.

The strategy is modeled as under:

- **R** - Read the text carefully
- **U** - Understand
- **H** - Highlight what is to be understood
- **A** - Ask question to self (Have I read the entire passage? Have I understood everything? What have I not understood? Am I able to answer all the questions at the end?)
- **A** - Answer them (Based on the passage, make your own question-answer them and check difficulties)
- **R** - Re-check re-read and make sure you have read the entire passage and have understood correctly)
- **S** - Seek help-if required (Look in the dictionary for meaning or ask help from any other person).

The child is taught RUHHARS so that we can apply it every time he needs to comprehend any type of reading material.
For concept development (Mehta, 1988) the strategy developed was called LIMNS: Different articles related to the concept to be taught are given to the students. The strategy to be followed is:

O - Observe what is shown
L - List all observation
I - Identify similarities
M - Make groups
N - Name the concept
S - State the rule

For solving Mathematical World Problem the strategy used in study (Swarup and Ahuja, 1997) was modeled as:

R - Read the problem
U - Understand the problem
P - Plan the solution
A - Attempt the problem
C - Check the Answer
S - State the Answer

The steps in the strategy are memorized by the students. Memorization is directed by the researcher in a systematic fashion through verbal rehearsals and drills.

For problem solving a strategy called 'I cee solution every vere (ICSEV)' was used which was directed towards solving of a specific problem which involved formation of responses and selection among possible responses. The steps followed are:

I - Identify the problem
Cee - Creating a hierarchy of sub-problems
Solutions - Strategies: Algorithms
Heuristics
Evey - Execution of the strategy
Vere - Verifying the strategy

In a study (Bhan and Kaushik, 1997) 2 aspects of social development in children with learning difficulties were identified namely egocentricity, impulsivity and altruism. A reflective thinking strategy ILEDE was taught to the students following the prescribed steps:

I - Identify the problem
L - Look at the different types of solution
Different situations were given to the students wherein they had to think reflectively following the above mentioned steps and discovered for themselves that one should not be egocentric and impulsive and should be altruistic in nature.

Training in this strategy could be used with children with various disabilities like - Hearing impairment, Visual impairment, Locomotor disabilities, Learning abilities and Mild mental retardation. The ultimate goal of use of these learning strategies is to teach students a skill needed at the present time and to have them generalized the skill across situations and setting and various time.

To conclude one can say using concrete aids and strategies as TLM will satisfy both the instructional objectives and the nurturing objectives of teaching. Besides learning the task at hand, the student will gain confidence in himself, feel worthwhile and develop a positive self image.

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### Points to remember while making T.L. Aids

1. A lot of things from waste can be used to make low-cost aids like leaves, chalk pieces, rage etc.
2. Visual aids which are specific to the content to be taught and not too crowded shall be used.
3. Auditory instructions should be brief and to the point (with the use of total communication for the hearing impairment)
4. A three-dimensional and concrete aid should be made. They should be handy, not too big to explore and not too small to understand the minute difference.
5. The aids should be strong and sturdy so as to withstand the manipulation by the children.
6. Sharp edges should be made blunt to avoid injuries.
7. Use of typewriter, calculator and computers should be encouraged when required.
8. For the visually impaired, factors like tactile attractiveness, tactual defensiveness and tactile tolerance should be kept in mind.

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### REFERENCES