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Mediated Learning Experience to Help Underachievers

Alice Seng Seok Hoon

There are many reasons why the child is not achieving well up to his or her potential at school. A main problem is that teachers find it hard to identify the underachiever in class and to take steps to remove the barriers towards his/her optimal achievement. The school system is unfortunately characterised by the teacher-centered approach which assumes that these underachievers with various learning difficulties should be accepted as they are, since they are incapable, for a variety of reasons, to be what they can supposed to be. The teaching-learning relationship is quite passive-acceptant and some form of hidden frustration and compassion are strangely combined with the need to protect such children from daily tasks beyond their conceptual, physical and emotional reach.

This passive-acceptant approach is reflected in various ways in the schools as for instance, psychometric assessment is aimed at describing the stable, unchanging characteristics in the underachieving child. Underachievers are labelled for example into low achievers, moderate achievers and high achievers. Curricular programmes and materials are planned and developed in such a manner that key subject areas are spelt out in a simplified, slowed down version. Perhaps a great emphasis is placed on reproductive and manipulative materials. There is not enough creative activity work calling for a higher level of thinking or independent performance.

The underachieving child if put in a non-challenging environment and if there is no systematic attempt to modify his behaviour, he is restricted to specific tasks requiring a much 'lower cognitive demand and he is often resigned to this 'disability'. In this 'vicious' cycle he experiences difficulties which lower his level of motivation and aspiration.

In order to raise this child to higher levels of development the passive-acceptant approach must be replaced by an active modification approach. (Feuerstein et.al., 1980). This active modification approach is based on the idea of the Modifying Environment (Beker & Feuerstein, 1990) which is rooted in the assumption that fundamental change can be stimulated by planned, active intervention that... systematically makes demands on those within it for cognitive, emotional, and social modification in the context of their existing levels of development, skill, etc. It does not 'accept the student where he (or she) is,' but it does 'start where the student is,' building on existing competencies while providing for needed feelings of security. As competency and performance improve, demands rise accordingly, thus establishing ever higher levels of functioning. Whatever the specific setting, the task is to establish and maintain a modifying environment appropriate to the needs of the particular clientele being served. (Beker & Feuerstein, 1989).

The objective, it should be emphasized, is not simply that students should be able to do specific tasks better, but that they should do them differently in ways that will better enable them to approach and master other tasks of the same kind in the future. (Beker & Feuerstein, 1990). This cognitive demand is highly necessary in our knowledge-based economy where so
many individual intellectual, social as well as emotional choices have to be made. The underachieving child too, has to learn to adapt and Beker (1989) emphasises a need for him to establish cognitive and emotional flexibility and the capacity to modify his own thinking, feelings and behaviour in response to internal and external conditions.

In order to make such modes of learning and thinking available to the child, much more is required than offering some specific skills or lessons. Ideally the whole school is systematically involved in a sort of three pronged approach to:

1 Assess the child's characteristics and his/her level of modifiability more dynamically.

2 Offer this information obtained through this assessment to policy makers, teachers, parents and to the children themselves.

3 Establish guidelines for intervention based on the preferred modes for increasing modifiability, as derived from the results of a dynamic assessment.

The environment is shaped so that it becomes a modifying environment and with the shaping of the environment, the modifiability of the individuals is increased. (Feuerstein & Rand, 1991).

**Mediated Learning Experience**

One key component in the Modifying Environment is what Feuerstein define as Mediated Learning Experience (MLE), 'an interaction in which another human, usually the adult caregiver, interprets the world to the child.' (Feuerstein et.al., 1980). In a mediated learning experience, the teacher or mediator interposes himself or herself between the child and the environment. According to Feuerstein the underachieving child learns by means of two major systems: direct exposure and mediated learning.

Learning through direct exposure is based on Piaget's formula of S-O-R which translated means that the organism (O) or the individual ID child interacts directly with the stimuli (S) of the surrounding world and responds (R). In this kind of interaction with the environment learning is incidental. Mediated learning on the other hand is the more vital approach that ensures effective learning. Feuerstein develops Piaget's formula of S-O-R further to include a human mediator between the world of stimuli, the organism and the response. His new formula for mediated learning is then S-H-O-H-R where H is the human mediator. The human mediator interposes himself between the learning organism and the world of stimuli to interpret, guide and give meaning to the stimuli.

Central to the MLE process is the theory of structural modifiability which represents a comprehensive (holistic) approach to problems of low levels of cognitive performance. ...In the course of every individual underachiever's development, changes take place such as walking, speaking, reading, etc. These changes are connected to specific types of behaviour. The underachieving child with cognitive modifiability methodically accumulates information, classifies and organises it, seeks laws in what surrounds him, raises hypotheses and examines them. Structural modifiability is an active process in the child who experiences an entire range of thinking functions and this brings about a change which can be totally unexpected on the basis of his regular development. (Kaniel & Feuerstein 1989 p 167).

The quality of the structural changes can be described by the following dimensions.

1 retention or permanence
2. resistance
3. flexibility or adaptability
4. generalisability or transformability.

MLE is a dynamic process by which structural cognitive modifiability occurs with the help of the mediator (teacher) who organises and interprets the world to the child. When an individual gives meaning to events, helps children select relevant from irrelevant variables, assists in abstracting rules for regularly occurring phenomena, and generally attempts to develop children’s ability to think, that individual is engaged in mediated learning.

The MLE approach creates an interactive process which allows the teacher to derive a great amount of information concerning the nature of the difficulties the child is confronted with in the cognitive tasks given to him. The dynamic assessment session is marked by a constant feedback process involving both the mediator and the mediatee, with the mediator constantly intervening.

According to Feuerstein and Krasilowsky (1970), many severely deprived adolescents in Israel had benefited from cognitive intervention programs based on MLE. Almost two decades of clinical experience with cognitive modifiability approaches applied to hundreds of socially deprived adolescents as well as experimental work done on groups of retarded individuals, have demonstrated the effectiveness of these methods to evaluate modifiability in youngsters above and beyond their low manifested level of cognitive functioning.

MLE basically has been used by mothers and fathers with their children all the time, usually without their thinking about it. However, many children have not experienced adequate MLE probably due to parents being very poor transmitters or receivers and as a result these children have not developed the adaptational skills on which further developmental learning depends. Sometimes the cognitive deficits in the child can be organic in nature or indirectly related to parental malfunctioning due to economic or marital stress and mental or emotional difficulties. In any event, when the needed MLE is provided through parents or any adult when that is possible, the cognitive deficits can be successfully resolved.

According to Feuerstein, many children who manifest low mental functioning do so not necessarily because of particular ‘etiological’ factors like heredity and/or organicity, but because of the lack of MLE. The deficiency produced by lack of MLE is mainly in the areas of attitude, orientation, habits and cognitive strategies of the child toward the world and toward himself. Such deficiency may not necessarily occur if MLE is made accessible. It is important to emphasise that MLE represents the quality of the interaction and is no way connected with any school subject matter. Feuerstein had developed ten criteria that described mediated learning which may be seen in various types of situations, different environments and cultures.

1. intentionality and reciprocity
2. meaning
3. transcendence
4. competence
5. self-regulation and control of behaviour
6. sharing
7. individuation
8. goal planning
9. challenge
10. self-change.

All the criteria of MLE are interlinked and it is up to the creativity, flexibility and insightfulness of the teacher to respond to the underachiever in ways which exploit the mediational potential of the dynamic relationship.
Underachieving children need to enhance their 'propensity' to use their experiences with stimuli in order to become modified and more experienced by this exposure. According to Feuerstein and Rand (1991), they must be rendered more 'flexible' so that their previous ways of thinking can interact with the new data by new ways of perceiving them, new modes of 'elaborating' them, and new and more adequate ways of responding to them. Through this process, they will become better able to benefit from experience.

The first goal of any intervention programme that aims at enriching the low achieving children will be to have them 'permeable' to the program, by creating in them the prerequisites for learning and that is done through increasing their modifiability. A number of subgoals are necessary and Feuerstein insisted that these must guide the construction of the programme and the selection of its materials and content. These are listed as follows:

1. correction of deficient cognitive functions
2. acquisition of prerequisite information
3. production of generalization and transfer
4. development of intrinsic motivation
5. creation of task-intrinsic motivation
6. changing the role of the underachiever.

**Two Singapore studies**

In a pilot study (1991) of four community tuition centers, an experimental group of 52 students received a combination of mediated learning experience and the usual academic programme for four months, while a control group of the same size received only the academic instruction. The children averaged 11 years of age and all of them were perceived by their teachers as underachievers having difficulty in concentrating, using poor study skills and work habits and lacking in confidence and motivation. Fifteen participant tutors attended a workshop on the mediated learning experience philosophy and received supervision and field coaching. Students were tested using Raven's Standard Progressive Matrices (RPM) and the Cognitive Abilities Test (CAT) and a record of class tests in mathematics and English was compiled. Results showed that mediated learning experience classes in

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**Task avoidance in completing homework.**

<table>
<thead>
<tr>
<th>MLE Criteria</th>
<th>What is Mediated</th>
<th>How it is mediated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intentionality/</td>
<td>Having child identify the problem, recognize a problem to be solved (elaboration)</td>
<td>Create signals for child to start task, remove distractions, create clear starting and stopping task.</td>
</tr>
<tr>
<td>Reciprocity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transcendence</td>
<td>Show how achieving success relates to other aspects of school/home</td>
<td>Bridging to other activities where completing tasks helps achieve positive outcomes.</td>
</tr>
<tr>
<td>Meaning</td>
<td>Get clear perception of need for and value of task completion (input)</td>
<td>Validate meaning of homework positive outcomes when it is completed, role of tasks in other family members' lives.</td>
</tr>
<tr>
<td>Competence</td>
<td>Help child use existing skills to complete tasks</td>
<td>Coaching, teaching, reinforcing past success, identifying newly acquired skills.</td>
</tr>
<tr>
<td>Goal setting</td>
<td>Precision and accuracy in response</td>
<td>Selecting time duration and outcome indicators, showing enthusiasm, praise, encouragement reviewing progress.</td>
</tr>
</tbody>
</table>
three of the four centers performed better on their school tests in mathematics, but that no significant improvement was noted in English, RPM, or CAT scores. On the other hand, the feedback from the tutors were more encouraging.

The second study in 1997 involves parents. (Falik, 1997). A three-day workshop based on Feuerstein's mediated learning experience principles was held for 25 parents and child care professionals who work with children and their parents. They were introduced to the concepts of MLE and their relationship to behaviour identification and management. This included an introduction to the theory of structural cognitive modifiability (SCM), the differences between direct and mediated learning experiences (MLE) and the relationship between MLE, SCM and the development of cognitive functions and social learning behaviour in children. This was followed by a discussion and demonstration of various specific techniques of mediation, questioning and interaction techniques, dimensions of structuring learning experiences, explaining and elaborating children's behavioural responses and bridging to further experiences.

Participants were then engaged in an activity which enabled them to practise the model and begin developing mediational skills by:

1. Identifying a behaviour that they wished to modify.
2. Identify the cognitive and behavioural functions embedded in the behaviour.
3. Determining the primary and secondary mediational objectives to be achieved i.e. what will be the direction and content of change.
4. Plan the specific targeted behaviour to which mediation will be directed and
5. Identify one or more specific interventions to be used to accomplish the goals.

The working groups carefully described what the child did and did not do related to the identified problems (using the cognitive functions as a basis for description), clarified what behavioural changes they wanted to institute, and worked out detailed plans for what to mediate, when and how to mediate, and the range of activities and mediational responses anticipated to affect change in the problem behaviour.

The table below is a brief illustration of how one working group used the MLE model to address an identified problem behaviour quite common with underachievers.

Participans in this workshop identified primarily academic performance oriented tasks in the underachievers. Any intervention strategy to help these struggling underachievers need to include other non-academic aspects. The MLE technique is only one way we can help underachieving students. Creativity and practicality are imperative if we wish to help these students grow both academically and personally.

**Conclusion**

The term ‘underachiever’ does not provide us with any tools for assessment and treatment. Such children are often described by phrases like ‘could do better’ or ‘lacking motivation’. It would be more accurate to write ‘could feel better’ or ‘lacking stimulation’. What is proposed in this short paper is to use the Mediated Learning Experience and structural cognitive modifiability concepts to enable us to locate specific cognitive functions in the child and to assist us to plan appropriate intervention programmes.

We now know how to motivate more able
learners and educate pupils who are socially and culturally disadvantaged. Yet our educational practices have somehow resulted in a widespread underfunctioning with some of our creative, imaginative and autonomous learners. These underachievers are particularly at risk, especially the abled underachievers who share characteristic attitudes, self-esteem, learning styles, emotional and behavioural difficulties. We perceive underfunctioning arising from a complex interaction of many sources. The MLE approach has faith in the underachieving child’s ability to change and therefore great efforts must be made to offer him many choices. It seeks out the child’s latent talents beyond his overt behaviour and he should be encouraged to be actively involved and integrated into our society.

References

Falik, L. Application of Mediated Learning Experience to the concerns of Singapore parents. Paper delivered at the 7th International Conference on Thinking. June 1-6, 1997, Singapore.

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