CHAPTER-III : STATEMENT OF THE PROBLEM

3.1. Introduction 97
3.2. Statement of the Problem 97
3.3. Title of the Problem 100
3.4. Operational Definition of the Terms Used in the Study 100
3.5. Objectives of the Study 102
3.6. Assumptions of the Study 103
3.7. Hypotheses of the Study 104
3.8. Scope of the Study 105
3.9. Need and Importance of the Study 107
3.10. Delimitations of the Study 111
3.1. Introduction

It is often stated that a problem well defined is half solved. This chapter entitled "Statement of Problem" defines the problem to be investigated in valid terms. It delineates the objectives and assumptions. In addition, this chapter states the research hypotheses, which provide proper direction to the investigation. The hypotheses are a powerful tool in research process to achieve dependable knowledge. It helps the researcher to relate theory to observation and observation to theory. Hypothesis of the study with specific objectives enables the researchers to identify the variables involved in the study and suggest methodological procedures that are to be employed. Finally, it charts out the scope, need and importance and delimitations of the study.

3.2. Statement of the Problem

According to Whitney (1964), 'to define a problem means to put a fence around it, to separate it by careful distinctions from like questions found in related situations of need'.

'Human resource development means preparing individuals so as to make them evince utmost and efficient application of potential in the task assigned or undertaken. Where there is a good degree of human resource development, there will be invariably all round development'. Our educational system does not cater to the endowed and the ignored.
Government makes necessary investment to ensure human resource development. It requires the teachers to assume more responsibility. The teacher or the trainer should have adequate knowledge about the method and technique. They should devise their instruction or training so as to cater to both the endowed and ignored. If either of them is neglected, it will not be possible to aim at or bring about optimum human resource development because in India there are large number of special needs children including problem students who surely outnumber the endowed or gifted students.

In classroom, children are so distributed that most of them can be classified as normal or average. But there are some students in every classroom who deviate mentally, socially, educationally etc. from normal children. These children constitute about considerable percentage of student population. Educating these children is a challenging task in human resource development.

Education is a man making process. The very aim of education is to produce dynamic and socially desirable and competent individuals. Government is investing colossal fund to achieve this objective. An educational system can be said to be effective and successful one when it ensures a specified level of academic achievement of all the students including problem students who are found in each classroom. These problem students are those students, who display very different combination of personal attributes and behaviour pattern. They require much more of time, energy and patience than most of their classmates. These students are poorly adjusted and resistant to classroom routine. They also display chronic and serious problems that need immediate intervention. These students may evince problems in such aspects as achievement, adjustment and social skills.

Jere Brophy (1996) has classified problem students as
1. Students with achievement problem
2. Students with hostility problem
3. Students with role adjustment problem
4. Students with social relationship problem
These problem students should be identified to make teaching a successful task. To make a correct assessment and placement to decide upon the suitable instructional strategy are the essential steps in intervention programme. The measures that have been found useful in identifying the problem students are

i. Observation
ii. Educational assessment
iii. Administering scientific tools to assess the problem students

These measures will enable the teacher to pinpoint the specific behaviour problem and to devise remediation. Early identification ensures cost and time effectiveness. Without identification, teacher cannot use an instructional strategy that can reach out to all the problem students.

Problem students are marked different in their basic, psychological, educational and social needs which are unique. They prefer short and simple methods of instruction based on concrete experiences. This envisages a special instructional strategy to develop academic skills of problem students. Our educational system does not provide any concrete strategy to develop social skills in problem students. Therefore, in order to overcome the academic deficiency of the problem students, multimedia based modular instruction strategy is devised and, in order to overcome the social deficiencies, a comprehensive social skill strategy is devised. The students should have adequate competence in these two domains i.e. academic and social. Then only the students can be useful and worthy men or women to the society.

(1992) suggest the need for effective remedial programme to overcome the social deficiencies of the problem students.

3.3. Title of the Problem

"EFFECTIVENESS OF CERTAIN REMEDIAL PROGRAMMES IN OVERCOMING ACADEMIC AND SOCIAL DEFICIENCIES OF PROBLEM STUDENTS"

3.4. Operational Definition of the Terms Used in the Study

Effectiveness

According to Oxford Dictionary (1975) 'Effectiveness is being able to bring about the result intended'. The 21st Century Dictionary (1999) defines effectiveness 'as having the power to produce or providing a desired result'. Likewise, Cambridge International Dictionary of English (1996) defines effectiveness as a 'method of achieving something or something that produces the result intended to'. It is also defined as the 'difference between the treated and control group in the proportion of the events of complete or almost complete overall recovery' (Tang, 1999).

In this study, effectiveness refers to 'impressive result in the learning by the VIII standard students consequent to the operation of multimedia based modular instruction and impressive attainment in the social skill achievement through the social skill strategy. It refers to the realization of academic and social objectives and also the degree of realization of higher-level attainment'.

Remedial Programme

Banjamin B. Wolman in his dictionary of behavioural science (1964 - page 698) defines remedial programme as 'providing remedy for disease or deficiency' (teaching or learning). Likewise, Quay (1983) defines remedial programme as 'the application of both the basic principles of learning theory and interaction of selected techniques, plan of activities to be done with behavioural characteristics of the child'.
In this study, remedial programme means ‘a planned series of actions intended for overcoming the academic deficiency using multimedia based modular instructional strategy and providing social skill strategy to overcome social deficiencies in problem students’.

**Academic Deficiency and Social Deficiency**

Benjamin B. Wolman (1964) defines ‘academic deficiency’ as ‘relating to formal education particularly involving the study of books or pertaining to the theoretical, rather than practical one, with shortage or lack in quality or amount’.

According to Chambers 21st Century Dictionary (2001) ‘social deficiency’ refers to ‘the organization and behaviour of the people in societies or communities, with shortage or lack in quality or amount.

As for as this study is concerned, academic deficiency refers to ‘the poor performance of the students in the classroom test or examination and other related study skills’ and the social deficiency refers to ‘the inadequacy in social behaviour, social interaction and social transaction’.

**Problem Students**

Encyclopedia of Education (1969) defines Problem student as ‘a student slow speaking, dirty, friendless and prone to do little work’. Likewise, Jery Brophy (1996) defines problem students as ‘those who are unable to pay attention to lesson, apply themselves to their work and respond to teacher’s initiations’. According to Dictionary of Social Sciences (1965) problem student means ‘a student whose behaviour deviates so widely from acceptable social norms, that special methods are required for dealing with him’.

In this study, problem students refer to the identified problem students in VIII standard who were found deficient in academic and social skills and who received the remedial programmes to develop their academic and social skills.
3.5. Objectives of the Study

**General Objectives**

1. To develop a checklist to identify the problem students in VIII standard.
2. To develop tools to identify the academic and social deficiencies of problem students.
3. To find out the background characteristics (Gender, Age, Community, Educational qualification of parents, Income of parents, Parental control) of problem students with academic and social deficiencies.
4. To develop remedial programmes incorporating multimedia based modules and social skill strategy to overcome academic and social skill deficiencies of problem students.
5. To find out the effectiveness of remedial programmes in overcoming academic and social deficiencies of problem students.

**Specific Objectives**

1. To find out whether there is any significant difference in the academic deficiency and social deficiency of problem students due to variation in their nature of problem behaviour, before adopting the remedial programme.
2. To find out the significant difference, if any, in the social deficiency of problem students in the classroom environment, school environment and social environment due to variation in their nature of problem behaviour, before adopting the remedial programme.
3. To find out whether there is any significant difference in the academic deficiency and social deficiency of problem students due to variations in their gender, age, community, educational qualification of parents, income of parents and parental control, before adopting the remedial programme.
4. To find out whether there is any significant difference in the academic achievement and social skill achievement of problem students.
students due to variation in their nature of problem behaviour, after adopting the remedial programme.

5. To find out the significant difference if any in the social skill achievement of problem students in the classroom environment, school environment, and social environment due to variation in their nature of problem behaviour, after adopting the remedial programme.

6. To find out whether there is any significant difference in the academic achievement and social skill achievement of problem students due to variations in their gender, age, community, educational qualification of parents, income of parents and parental control, after adopting the remedial programme.

7. To find out whether there is any significant difference in the academic achievement of each category of problem students and problem students as a whole before and after adopting the remedial programme.

8. To find out whether there is any significant difference in the social skill achievement of each category of problem students and problem students as a whole before and after adopting the remedial programme.

9. To find out whether there is any significant difference in the social skill achievement of each category of problem students and problem students as a whole in the classroom environment, school environment and social environment due to variation in their nature of problem behaviour, before and after adopting the remedial programme.

3.6. Assumptions of the Study

1. A checklist can be developed to identify the problem students in VIII standard based on the underlying characteristic problems.

2. A scale can be developed to assess the social skill deficiency of the problem students in VIII standard with regard to classroom environment, school environment and social environment.

3. Multimedia based modules can be developed and applied to overcome the academic deficiency of problem students.
4. Modular instructional strategy will enhance the achievement of problem students.

5. A comprehensive social skill strategy can be devised incorporating a ten-action programme to develop social skills in problem students.

3.7. Hypotheses of the Study

1. There is significant difference in the academic deficiency and social deficiency of problem students due to variation in their nature of problem behaviour, before adopting the remedial programme.

2. There exists significant difference in the social deficiency of problem students in the classroom environment, school environment, and social environment due to variation in their nature of problem behaviour, before adopting the remedial programme.

3. There exists significant difference in the academic deficiency and social deficiency of problem students due to variations in their gender, age, community, educational qualification of parents, income of parents and parental control, before adopting the remedial programme.

4. There is no significant difference in the academic achievement and social skill achievement of problem students due to variation in their nature of problem behaviour, after adopting the remedial programme.

5. There is no significant difference in the social skill achievement of problem students in the classroom environment, school environment and social environment due to variation in their nature of problem behaviour, after adopting the remedial programme.

6. There is no significant difference in the academic achievement and social skill achievement of problem students due to variations in their gender, age, community, educational qualification of parents, income of parents and parental control, after adopting the remedial programme.
7. There is significant difference in the academic achievement of each category of problem students and problem students as a whole before and after adopting the remedial programme.
8. There is significant difference in the social skill achievement of each category of problem students and problem students as a whole before and after adopting the remedial programme.
9. There is significant difference in the social skill achievement of each category of problem students and problem students as a whole in the classroom environment, school environment and social environment due to variation in their nature of problem behaviour, before and after adopting the remedial programme.

3.8. Scope of the Study

The intervention strategy in this study to overcome the academic and social deficiencies of problem students includes multimedia based modular instructional strategy to circumvent academic deficiency and, a comprehensive social skill strategy to circumvent social deficiency. Multimedia is the composite of auditory and visual presentation. It can reach an audience of unlimited size. It can transmit programme content with out delay from point of origin to the point of reception. Keeping this view in mind, the primary focus of the study is to develop multimedia packages for certain units in science of VIII standard. Modules are self learning packages. They have programme content with supporting multimedia packages. The main objective of modular instruction is promoting mastery learning by means of auto learning or learning at their own pace. Three to four modules were developed for each unit and for each module supporting multimedia packages like audio cassettes and video cassettes and other high technology instructional media (HTIM) and low technology instructional media (LTIM) were also provided.

Audio cassettes and video cassettes procured from the International Educational Research Centre, New Delhi; ACE Educational System Private Ltd Madras; District Science Centre, Tirunelveli, which cover most of the units, are used in this study. Likewise, the video cassettes procured from the above sources are also used to provide multimedia base to the module relevant to the particular concept. For those units, ready-made cassettes
were not available, required multimedia packages were developed by the researcher himself.

Apart from the audio and video cassettes procured from different sources and developed by the investigator, other HTIM like microscope, micro slides etc and LTIM such as charts models, both working and non working, are also used as an integral part of the module. For some of the selected units readymade computer assisted instruction (CAI) software available in the market are used for the purpose of experimentation. For the units not covered by the commercial CAI software, the investigator developed his own CAI with the help of a computer expert to make his instructional presentation effective to the problem students.

Modules of all the units were given to the problem students in the form of a handbook so as to facilitate auto learning by the problem students at their own pace. Teacher support system was restricted to an extent of operating the multimedia packages, clarifying doubts and guiding the project works.

Two units were selected for each subject for the purpose of developing modules and measuring the effectiveness of modules on the academic achievement of the problem students. Each selected unit was divided into two to four conceptual sub units. For Physics, sound and electricity were included for the study. For Chemistry, chemical equations, acids, bases and salts were included in the study. For Botany and Zoology, organisation of plants, Ecology – ecological factors, cellular organisation, nutrition and hygiene were chosen respectively for the present investigation and for the preparation of modules. Fifty problem students from VIII standard of Government Higher Secondary School, Amathur were identified for the study.

To develop social competence, a Social Skill Strategy was devised by the investigator. The Social Skill Strategy, which contains a ten-action remedial programme was implemented to circumvent the social deficiencies found in the problem students. The treatment was extended for a period of
six months, since that much of minimum time is required to bring about a
desirable change in the behaviour of the problem students. To undo and to
modify a problem behaviour evinced by the students for years together, a
period of six months is necessary. Then the modified behaviour can be
expected to last long without any reversion to the problem behaviour again.
The experimental period is bound to provide adequate opportunity to the
investigator to observe and assess whether the ten activities included in the
social skill strategy nullify the problem behaviour, modify existing behaviour
and influence the right behaviour.

For the academic part, the treatment includes administering pre-test
providing intervention programme and finally administering post-test to
measure the academic achievement. For the social skill part, the treatment
includes administering Social Skill Assessment Scale, providing remedial
programme in the form of ten-action programmes and finally administering
the scale once again to assess the degree of social skills achieved. This
part of the treatment was extended for 3 months since that much of time was
required to develop social skills in problem students. Since modification of
existing problem and development of right behaviour require much time, the
remedial programme was given for a period of six months.

3.9. Need and Importance of the Study

Teaching effectively is the most important of all the skills required of a
successful teacher. Effective teaching deals with the needs, interest and
abilities of students as individual. It requires the knowledge of environment in
which the students live, the development problem they face and their mental
abilities. It is more true so when the teacher is dealing with the problem
students. It also calls for an understanding of learning process essential for
creating an environment where learning can take place and for making
instruction so stimulating that each pupil will be motivated to learn.
Stimulating pupils to think critically, independently and creatively is essential
for effective teaching.
Effective teaching in any subject depends largely upon the introduction of new methods of instruction. There is a growing need for trying out new methods of instruction and establishing their effectiveness in teaching. Now a days, teacher can not depend on any single method of teaching. The teacher has to try out several innovative methods to present the content to the student. When they are taught by innovative methods, the students are able to understand the concept, principles and content in an effective manner.

The immense knowledge explosion taking place in the world warrants new methods of teaching. Students need unique experience in the presentation of content. Multimedia based modular approach provides such unique experience to students. But, utmost care should be evinced in the development of modules which is a complex technical work.

Destiny of a nation is being shaped in the class room. The growing number of problem students at all levels of our educational systems warrants such a study, as the proposed one, to be undertaken for the enrichment of our teaching-learning process.

Above all, human resource development should be at the focus of any research effort for a developing country like India which has abundant human resources. In Indian system of education, it is observed that the human resource i.e. teachers and learners are underdeveloped and perform lower than their capabilities. The learners are under developed in the sense that they are not achieving in tune with their capabilities. Even some of the most efficient teachers are not adequately equipped to identify and guide the problem students to reach their optimum levels. As a result, the instructors in turn are not able to send their products into the society as fully developed learners. To ensure this we need a different strategy that can cater to individual differences. Multimedia based modular approach is one such strategy.

Now, the current trend is propagating auto learning i.e. learning by learner himself at his own pace. This paved the way for computer assisted instruction (CAI), computer assisted learning (CAL) etc.; here
the teacher is merely a facilitator of learning. He need not suffocate the students with all the information at a time. In auto learning, the learner can take his own time and he can proceed at his own pace till he completes the lesson. It is not the time but mastery learning which is the governing criterion here. This is where modular approach exactly fits in.

Multimedia based modular learning experiences represent a natural way for learning to take place. Learning can be accelerated by involving maximum number of senses. Sensory experience forms the foundation of intellectual activity in any formal school situation and learners differ in the effectiveness of their sense reception. Modular learning experiences have the advantage of appealing to the individual learner's pace, interest and readiness.

Besides, cognition and conceptualization depend on a chain of events, which begin with the learner's perception of stimulus, be the auditory, visual, tactile and olfactory. It is important that these initial learning experiences be accurate, dependable and understandable. Unless the learner's initial sensory impressions are accurate, it will be impossible for them to have reliable conceptualization and understandings. With the existing numerous kinds of aids, carefully organised presentation of information through a variety of media should occupy the learner's conscious attention to living stimuli (Mohan and Rajeswari, 1995). This is what is precisely ensured by multimedia based modular approach.

Modules help to stimulate interest in learning. It economises time and effort, reduces verbalism in teaching and imparts broad education to pupils. Not only children but also adults remember facts better when multimedia aids are used to explain the concepts. Further, multimedia based modular approach supports Pavlov's (1975) dual code theory of memory which suggests that information coded both visually and verbally is remembered better than information coded in only one of those two ways. Instructors sometimes consider it difficult or impossible to individualize learning while carrying on group instruction. But opportunities do exist to individualise learning with group of nearly any size (James Brown et al., 1985). To do so
requires systematic planning and creative uses of media sources as in modularisation.

Educational technology has come in to stay forever to wield a greater influence in the teaching learning process. There is an urgent need to experiment the effectiveness of modules and to assess their advantage over the traditional lecture method. In Indian setting, studies have been made by Vardhini (1983), Basu (1981), Ramar (1994 and 1996), Reddy and Ramar (1995, 1996 & 1997a), to verify the effectiveness of multimedia. Dhamija (1985), Hopper (1982), Sahajahan (1980), Challadurai (1994) and Natarajan (1996), have conducted experimental studies to establish and measure the effectiveness of modular approach. Ramar (1994) and Reddy & Ramar (1994, 1995 & 1996), have conducted experimental studies to bring to light and to measure the effectiveness of modular approach with special reference low achievers and slow learners.

Similarly, a high degree of social deficiency is found in problem students. Unless these problem behaviours are modified and right type of behaviours are cultivated, the students cannot be made good citizens. They may end up as learned criminals. Taking this situation into consideration, the investigator developed a Comprehensive Social Skill Strategy incorporating a ten-action programme.

The devised ten-action programme ensures participation, cooperation and coordination of problem students. These recurrent and conditioned actions enable them to come out of their shell, to break ice, to express their view / idea and to accommodate the views of others. It ultimately develops interpersonal relationship, social adjustment, social perception, social interaction and social transaction in problem students. Thus, this ten action programme will ensure modification of problem behaviour of the problem students, development of right type of behaviours and adequate social skills which all will find an expression in application to real social situation in their later life.
Systematic researches are therefore, necessary to develop modules so as to assess their effectiveness to problem students. Also, we cannot afford to ignore the problem students who constitute a sizable portion of student population. Also, there is a great need to develop their social competence so that they will be useful members of the society in the later years. An intervention strategy like this can go a long way in achieving this ultimate goal. We cannot aim at optimum human resource development without circumventing the specific deficiencies of the problem students who are found in each and every classroom. The present study is an attempt to develop modules for the use of problem students in VIII standard so as to circumvent their academic deficiency and also to develop a social skill strategy incorporating ten action programme to overcome the social deficiency of the problem students. The study also aims at assessing the effectiveness of social skill strategy incorporating ten action programme in circumventing the social deficiency in addition to assessing the effectiveness of multimedia based modular instructional strategy in circumventing the academic deficiencies of problem students.

3.10. Delimitations of the Study

1. The study is confined to VIII standard students in Government higher secondary school, Amathur.
2. The sample consists of 50 problem students selected on the basis of observations of teacher and parents, curriculum based assessment and on the basis of their response to the checklist.
3. Academic deficiency was identified on the basis of educational assessment including their achievement in the quarterly examination.
4. The social deficiency of the problem students was identified on the basis of teacher's observation and on the basis of their response to the checklist.
5. Two units each from Physics, Chemistry, Botany and Zoology in VIII standard science are only included for the study.
6. The selected units were taught to the students by traditional lecture method before the pre-test.
7. Treatment was provided for a period of six months since the study aims at developing social competence, which needs a considerable time for overt manifestation and observation of behaviour.

8. The achievement test used in the study is a teacher made one, not a standardised one.

The methodology used in this study is presented in the forthcoming chapter.