

CHAPTER I

THE PROBLEM

Introduction

In most countries of the world, there has been rapid development in the application of technology in education at all levels. The television technology was adopted for the first time, for educational purposes, in America during the thirties. Within a span of fifty years the television technology has been utilized by developed as well as the developing countries in their educational systems. India has also opted for this technology to achieve its educational objectives, including the universalization of elementary education. The Satellite Instructional Television Experiment (SITE) programmes, undertaken in 1975-76, followed by the launching of the Indian National Satellite (INSAT) in 1982 to take education to the masses in the remote areas, and the primary school children in rural areas, are indications of the national effort in this direction.

The present study is an attempt to understand the contribution of instructional television in

nurturing behaviours such as curiosity, creativity, and the like, which are known for their positive contribution in the educational development of young children.

In India the first experimental television service was inaugurated in September 1959, in Delhi. It is significant to note that the television service was started with the social education programmes and not entertainment. The social education programmes of those days are comparable to the adult education and non-formal education programmes of today. Its frequency and duration was limited, and only in 66 community centres television sets were installed. The audience was organised into teleclubs and manned by persons running the centres. But the important point was that the television clubs were located in the school premises where the television sets were kept. This provided a meeting point for the educational and television authorities. This interaction resulted in an initial small scale television experiment for schools.

By the beginning of 1960, television got into the schools. All India Radio, in cooperation with the Delhi Directorate of Education, started a weekly service of specially designed programmes for the benefit of the students of grade ninth. It combined both, the

enrichment programmes and those having a bearing on the prescribed school syllabus.

But a more planned and comprehensive television came into the school under a project called Delhi School Television Project. It was launched towards the end of 1961 and was a cooperative endeavour of the All India Radio, Ford Foundation and the Directorate of Education, Delhi. In about 150 secondary schools, it covered about 20,000 students. The television lessons were so designed that the topic covered on the television coincided with the subject area to be covered by the class teacher, during the corresponding week. Thus, all the television schools followed a uniform weekly syllabus, time table, examination schedule etc. This television centered teaching resulted in many practical difficulties of coordinating the day-to-day activities of the school. The Project was evaluated by Neurath (1966). The findings of the evaluation study are discussed in the next chapter.

The establishment of a separate TV Branch of the Delhi Directorate of Education, marks an important step in making the instructional television more responsive to the academic needs. It served an important link between the television programme producers and the

academic side of the television lessons. It supervises and organizes work pertaining to planning, preparation, utilization and evaluation of television lessons. Thus it provides useful feedback to the television producers. The branch also orients the teachers to instructional television techniques, and provides help and guidance to them in schools. But the role of the TV Branch was confined to the middle and secondary schools only.

Today, at the secondary level, more than 3 lakh students are viewing the programmes, in more than 600 middle and secondary schools of Delhi. The instructional television at this level, cover sixth to tenth grade students, each grade receiving two to three lessons per week. The important point is that the programmes are based on the prescribed syllabus, but the teaching is not so rigidly organized as during the earlier stages of its introduction.

All these years the elementary schools were totally ignored. Television came much later in the elementary schools. It was introduced, for the first time in the country, in March, 1975, by the Delhi Television Centre. The instructional television at the elementary level deals strictly with enrichment programmes, unlike the secondary school programmes, which

are curriculum based (All India Radio, 1975). The programmes are not according to grades, but are produced and telecast, keeping in view the older and the younger age groups. The telecasting is confined to two programmes a week. The programmes are of 20 minutes duration. A typical programme schedule is given in the Appendix 1.

Where the schools are small, as in the rural areas, the entire school watches the programme. It is estimated that thirty thousand children in about 186 elementary schools benefit from them. Today the instructional television for elementary schools is telecast from other television centres also like Bombay, Madras and Calcutta.

The total duration of the telecasting time for the elementary school continues to be rather small. From the Delhi Centre, on an average, 45 to 50 transmissions are put up per year. If they are shown regularly in the school, the total time may amount to 16 to 17 hours. But in the schools, there is under utilization of the medium (Phutela, 1978) and hence the children's actual exposure may be still smaller.

Almost parallel to the introduction of instructional television in the elementary schools in August

1975, the Satellite Instructional Television Experiment (SITE) came into existence. The SITE programmes were exclusively meant for rural coverage, for two types of audience, the elementary school children and the adults, in the villages covered. SITE was a first systematic attempt to reach out to rural children in six backward areas of the country. This was a significant departure and hence a great change in the role of the instructional television. SITE's other significant aspects were its large scale day-to-day programme development and experimental activities. These were followed by extensive formative and summative research studies.

The SITE covered the elementary school children, 5 to 12 years, in four different languages, namely, Hindi, Kannada, Telugu, and Oriya. It covered 2,400 villages in backward areas of Andhra Pradesh, Bihar, Karnataka, Madhya Pradesh, Orissa and Rajasthan. Unlike the Delhi Television, the SITE programme was transmitted on each school day, for 22½ minutes. This meant a total longer duration. The programmes presented were not based on school syllabus but were meant to provide general enrichment.

The programme focussed on the following broad objectives:

1. Help children learn community living skills
 2. Improve language and technicracy
 3. Instill habit of hygienic and healthy living
 4. Promote aesthetic sensitivity
 5. Make children aware of the process of modernisation of life and society around them
- (Chander and Karnik, 1976).

In the programmes, the greatest emphasis was on topics dealing with science. Contentwise the maximum time was devoted to science (53 per cent); entertainment (13 per cent); national awareness (12 per cent). Other areas included were health and nutrition, biography, making things, religion, social and current problems.

Another programme meant not for elementary school children but for elementary school teachers needs a mention. Centre for Educational Technology of the National Council of Educational Research and Training (NCERT), used SITE facilities to train teachers. The package programme was aimed at improving the teacher competencies in pedagogy and content of science (Muley and Everest, 1979). Besides television, it utilized printed media, discussion and radio. There were nine important messages in the training package. Two such training programmes were organized and ten to

twenty teachers were trained around each television set. The programmes were directed to forty thousand teachers.

The SITE was followed by another satellite, the Indian National Satellite (INSAT) which was launched in April, 1982. This is an indigenous multipurpose satellite system. The study group of the Ministry of Education has planned the educational component of the INSAT. These programmes, which are presently under production, are intended for rural audience in the less developed areas of the country. The INSAT programmes "would perform the complementary functions to school education so as to become an alternative system of education" (Working Group, 1980). These programmes are aimed to bring about the following behavioural changes:

1. Motivate children towards learning and attending school
2. Create awareness of the problems of the community
3. Develop desirable attitudes and habits
4. Improve skills
5. Lead children to explore and to do

Development of instructional television in the country, presented above, lead to the following:

1. In India, the instructional television was originally started as a social education programme meant for adults. Thereafter came the instructional television for the secondary school students. It is only recently that the attention has been focussed on the elementary school children. Thus the pattern has been from adults to secondary school and then to elementary school; from a higher age group to a lower age group. This may partly be due to the realization of the great importance attached to elementary education.
2. If one examines the elementary school level instructional television more carefully, another significant trend is evident. Greater attention, it appears, is being devoted to the children in the rural, backward and remote areas. The instructional television, possibly, is fast changing and adjusting to the new social demands.
3. The emphasis in the content of the

instructional television programmes has also undergone change. Originally, the emphasis was on a rigid curriculum based teaching through television. It gave way to curriculum based content, largely supplemental to the classroom teaching. Of late, however, the non-curriculum enrichment programmes, at elementary school level have come up.

4. There are indications that the instructional television through satellite is capable of effectively covering a larger population than the ordinary television centres.
5. The time allotted to instructional television, at all levels; secondary, middle, and elementary, is inadequate. If its duration is compared to the regular school teaching hours it may work out to less than two per cent of the total learning time in schools.
6. There may be compelling reasons for not extending the instructional television facilities. The instructional television, however, has made a place for itself, and in future, it is perhaps capable of developing into a major educational system.

Significance of the Study

The instructional television has been in existence in India for more than twenty years. As more stations are being opened, the instructional television is getting a wider coverage. The new INSAT will put a still larger number of schools in widely different parts of the country within its range of influence.

This expansion of instructional television is being brought about at great human and material costs. Television broadcasting right from the planning and production, to its reception in school situation, is a tremendous task. Therefore the educational planners would like to know the benefits of this exercise, in terms of its impact on elementary education. This indeed is an important consideration. The planner's concern is to know how effective are these programmes? Educational planners need this information. The impact studies, like the present one, may help them to take decisions either to strengthen these programmes, or to plan other alternate strategies.

The significance of studying the impact of instructional television becomes all the more important, especially, when it is being investigated at the

elementary school level, and among the rural children, in view of the national goals of education.

Impact studies have relevance for teachers. The teachers influence children's behaviour in various ways. Their major concern is, however, students' learning. If the impact study could show any positive results, it would strengthen their belief in this medium. It may also help them to take the television more seriously.

Television producers can also get the feedback from the impact studies to design effective and need-based programmes. In fact, their need is for a continuous feed-back on the programmes.

Statement of the Problem

To identify the problem, a review of studies on television's impact was carried out. This review is presented in Chapter II of this study. It provided information regarding the ground covered by various investigators, concerning the television's impact in relation to school learning, violence and aggressive behaviour, social behaviour and other related areas. This also gave an account of the rather limited research conducted within the country.

The overall picture that emerged from the review may be summarised as follows:

1. Television viewing displaces many regular activities of children. New interests are stimulated and there is an overall change in their behaviour.
2. As far as learning in school situation is concerned, television does contribute to it, though many factors decide how effective the learning will be.
3. The evidence favours the hypothesis that exposure to television violence increases the likelihood of subsequent aggressive behaviour.
4. It is possible to promote pro-social behaviour through television, at least at the pre-school level.
5. There is evidence to show that television is capable of influencing attitudes and values.
6. The impact of television on creative behaviour of children has not been adequately

studied and the curiosity behaviour has almost been ignored.

7. Western studies have not paid much attention to impact of television on rural children, though a few studies in India have focussed on this aspect.

The research studies could also be categorized in terms of planned and unplanned effects on behaviour. On the one hand there are the studies which emphasise the specific impact planned in relation to the objectives of the programme. On the other hand, there are a large number of studies showing behavioural impacts which were never the objectives of the programme. These relate to the negative impact of television, such as aggressive, and violent behaviour. In the former, the positive impacts were purposely designed and planned. On the contrary, in the later, the negative impacts were never planned or desired.

The investigator believed that just as there were negative unintended outcomes, perhaps there could also be unintended but desirable outcomes. In the context of learning situations what these behaviours could be? If these could be related to behaviours, such as curiosity, creativity, language expression, and

attitude, there should be interesting possibilities to mould children's behaviour in early years through the medium of television.

The other considerations which guided the formulation of the problem were:

1. The problem should be related to the impact of instructional television, on those aspects which have not received much attention.
2. It should be related to elementary school children.
3. It should focus on the rural children.

Keeping the above considerations, the problem was defined as follows:

"A study of the impact of instructional television on the behaviour of the rural elementary school children".

The behaviours included in this study were confined to:

- Creative behaviour
- Curiosity behaviour
- Language behaviour
- Attitudinal behaviour

It may be worthwhile to consider the importance of nurturing the above behaviours. The schools often do not make a conscious effort to develop curiosity disposition in children. However, curiosity does play an important part in motivating learning. If the child could be made curious about something, probably that child would not rest until his curiosity is satisfied. Not only would it stimulate learning but it could be a starting point to lead the child to self-discovery and self-learning.

Creative behaviour on the other hand is better understood. The contribution of the creative person in modern society is well recognized. His role in furthering the cause of progress of mankind has been appreciated. Hence nurturing this behaviour right from early childhood has acquired a special significance.

The language behaviour in early years is largely determined by the family and immediate social environment. However, when the child goes to school, language development becomes an area of greater importance, for all learning takes place through language skills. Development of oral expression and power of communication are important language skills. They help the child to adjust to the fast changing needs and social norms in the school, and in later life.

A positive attitude towards school in early years go a long way in moulding child's academic life. It would make learning a pleasure rather than a mere ritual, if such attitudes are properly nurtured.

Generally, the above behaviours are not considered a part of classroom teaching activities. However, under suitable classroom environment such behaviours could be nurtured. It is believed that perhaps instructional television may contribute to school climate in a way that these behaviours get stimulated, resulting in a positive impact.

The Objectives

The following objectives were formulated to examine the impact of instructional television on the above mentioned behaviours:

1. To study the impact of instructional television on the curiosity behaviour of rural elementary school children.
2. To study the impact of instructional television on the creative behaviour of rural elementary school children.
3. To study the impact of instructional television on language of rural elementary school children.
4. To study the impact of instructional television on the attitude of rural elementary school children towards school.

To examine the influence of intelligence and caste on the television's impact on the selected variables, the following objectives were added:

5. To study the effect of instructional television and intelligence operating together on the above variables (namely, curiosity, creativity, language and attitude towards school).
6. To study the effect of instructional television and caste operating together on the above variables (namely curiosity, creativity, language and attitude towards school).

Formulating the Hypotheses

To study the above objectives, corresponding hypotheses were derived. The rationale for each hypothesis is stated below.

Hypothesis - 1:

The programmes presented on the television have a sense of novelty as also of complexity for the child. These factors may make the child curious about the contents of the programmes (Berlyne, 1960). Television programmes give a wide variety of content to the child. At times, he may be totally confused (what has been called 'information conflict' by Nunally, 1971). Yet at the same time he may find the confusion interesting.

In sorting out this confusion and in a desire to discover meaning and explanation, the child may start asking questions. He may become curious. Over a period of time, such exposures may develop in him a general disposition to become curious. This will lead to hypothesis:

Children exposed to instructional television will tend to be more curious than those children not exposed to instructional television.

Hypothesis - 2:

Torrance (1962) has listed suggestions for nurturing creativity, particularly in the child at elementary school level. Taylor (1964), on the other hand, gave many conditions that inhibit creativity. Taking them into consideration, the investigator believed that more anti-creative factors are at work, than the positive ones, at the elementary school level.

The instructional television will introduce a new element in the environment. Television viewing may stimulate the child's imagination and fantasy. It will provide a rich source of knowledge supplemental to the school curriculum. These may interact resulting in creative expression (Williams, 1966).

It was also thought that the television viewing sessions in the school, with all the interactions among the children, have some elements of a brain storming session (Osborn, 1957). Hence there is a case for television to stimulate creativity. This will lead to hypothesise:

The children exposed to instructional television will tend to be more creative than those children not exposed to instructional television.

Hypothesis - 3:

Children in the rural areas are influenced by the local culture. This is particularly marked by their manner of speech and language. Though the teaching in schools goes on in standard Hindi (Khari Boli), yet the children follow the traditional ways of expression.

The television provides a visual-auditory change to this. Just as personalities appearing on the movie screen acquire 'halo' effect which is often adopted as mode for speech and mannerism, it was postulated that children will regard persons appearing on television as models worthy of copying, particularly in regard to their ways and manners of speech. This will lead to hypothesise:

Children exposed to instructional television will tend to differ on language expression from those children not exposed to instructional television.

Hypothesis - 4:

Generally the child's attitude towards his school, particularly at the elementary level, is not a favourable one. This is well substantiated by a large number of children either running away from school, or absenting all together, or even some ultimately dropping out.

Does the presence of television in school brings about any change in the child's attitude towards the school in general? It is possible that children may find the school interesting as a result of the presence of television viewing facilities. This may lead to the development of a favourable attitude towards the school as a whole and its activities. The hypothesis may be stated thus:

Children exposed to instructional television will tend to show more favourable attitude towards school than those children not exposed to instructional television.

The above hypotheses covered the first four objectives. For the objectives regarding the effect of intelligence and caste, two more hypotheses were formulated.

Hypothesis - 5:

An intelligent child would react differently to a television programme than a less intelligent one. From the same television programme both would probably absorb different things and in varying degrees. Thus intelligence as a factor may result in giving differential impact. To study the effect of intelligence on children's behaviour in terms of their curiosity, creativity, language and school attitude the following hypothesis was formulated:

Intelligence and instructional television together will influence the four behavioural variables under consideration (namely curiosity, creativity, language expression and school attitude).

Hypothesis - 6:

Generally children coming from the scheduled caste families suffer from a far larger educational disadvantage and general environmental deprivation than those children belonging to upper caste families. The enrichment programmes provided by the instructional television are more likely to stimulate those who are disadvantaged and deprived. The programmes are likely to enrich the limited perspectives of their immediate and remote environment. Hence there is a possibility

that caste, as an indicator of disadvantage and deprivation, may influence the television impact, specially in the rural areas. This will lead to hypothesise:

Caste and instructional television together will influence the four behavioural variables (curiosity, creativity, language expression and school attitude).

Description of variables

Curiosity:

Curiosity, in the dictionary terminology, means 'a desire to know or learn about something new or strange'. This implies that curiosity has to do with learning, exploring, experimenting, with the unknown, unusual or unfamiliar, rather than with the known and familiar.

Berlyne (1960, 1965) defined curiosity as an individual's state in which he is highly aroused. This arousal has resulted from the conflict in the response system of the individual. He was primarily interested in the curiosity producing characteristics of the stimulus, which he termed as having 'collative variability'. These he identified as characteristics of being highly complex, incongruous, novel and uncertain.

Nunally (1971) has tried to explain curiosity by a new construct which he called 'information conflict'. When an individual is confused to identify, information conflict occurs. This results in curiosity and exploratory behaviour, till the information conflict is resolved.

Maw and Maw (1961) defined highly curious person as one who:

- "1. Reacts positively to new, strange, incongruous or mysterious elements in his environment by moving towards them, by exploring them or by manipulating them.
2. Exhibits a need or a desire to know more about himself and/or his environment.
3. Scans his surrounding, seeking new experiences and or
4. Persists in examining and exploring stimuli in order to know more about them."

In the present study the above definition was adopted.

Creativity:

The two models of intellect, convergent thinking and divergent thinking, came out of Guilford's (1956) pioneering work on structure of intellect. Convergent

thinking refers to the conventional type of intelligence where thinking converges towards one pre-determined answer. In divergent thinking, the emphasis is on the production of as many responses as possible. It is concerned with working in different directions, sometimes searching, sometimes seeking variety. It is the divergent thinking that is the most obvious indicator of creativity.

Torrance (1960) has described the creative thinking as: "a process of becoming sensitive to problems, deficiencies, gaps in knowledge, missing elements, disharmonies, and so on: identifying the difficulties; searching for solutions, making guesses, or formulating about the deficiencies; testing and retesting these hypotheses and finally communicating the results". On the other hand, Wallach and Kogan (1965) have emphasized the "production of associative content that is abundant, and that is unique". They emphasized the playful, permissive task attitude.

In the present study the term creativity has been used to mean the ability to see new relationships, to produce unusual ideas, to deviate from the traditional patterns.

Language:

Language in use, whether spoken or written, is a form of behaviour. Two aspects of language expression were considered. First is the language fluency. It means the speed or the amount of verbalization within a given time. Here the words would constitute the unit of measurement and the ideas contained are not taken into account (McCarthy, 1930; Davis, 1937).

The second aspect of the language expression is its refinement. The refinement concept could be highly ambiguous because it implies a criterion of refinement against which to evaluate. The standard Hindi (Khari Boli) has been taken as a criterion of language refinement for evaluation.

Attitudes:

Krech, Crutchfield and Ballachey (1962) defined it as "enduring systems of positive or negative evaluations, emotional feelings, and pro or con action tendencies with respect to social objects". In the context of child's attitude towards school, this could be studied by finding out the child's behaviour, about his likes and dislikes, and his overall reaction to school situations, involving learning and other activities.

Motivation to achieve has also been taken here as an attitude variable. Motivation is reflected by a group of those attitudes which relate to achievement and success.

To sum up, the terms and variables used in the study, have been defined as follows:

Curiosity: Positive reaction to new, strange, incongruous or mysterious elements, indicated by a desire to know more about them, by paying more attention to them, by exploring and manipulating them.

Creativity: The ability to see new relationships, to produce unusual ideas and to deviate from the traditional pattern.

Language Fluency: Capacity to orally verbalise a situation in a given time.

Language Refinement: Extent to which an individual can recognise the usage of standard Hindi (Khari boli) from non-standard form.

Attitude: The way the child feels towards school and its activities in terms of his likes and dislikes.

Motivation: The child's attitude towards achievement or success in school situation.

Intelligence: A person's innate educative ability (as obtained on Raven's Progressive Matrices).

Behaviour: Measurable activity of the child.

Impact: Any measurable change brought about in the group.

Variable: Curiosity, creativity, language and attitude have been referred to as variables.

Measure: Score obtained on a specific aspect of the variable.

Instructional Television (ITV): Television programmes meant for the school children and shown in the school situation.

Treatment: Exposure to instructional television programmes.

Treatment Groups: Treatment group: group exposed to instructional television, termed as ITV group; Non-treatment group: group not exposed to instructional television, termed as Non-ITV group.

Rural: Areas where the majority of people are connected with agriculture; areas categorised as such by the Delhi Municipal Corporation.

Caste Categories: The caste classification as applicable in the Union Territory of Delhi and used by the Delhi Municipal Corporation.