DISCUSSION

Contemporary literature cites the controversy regarding the extent to which investment in education in developing nation can produce greater equality in the distribution of education itself or in the distribution of whatever social and economic rewards society has to offer. Few still maintain the optimistic view that expansion of access to education would naturally produce greater social and economic equality. The Directive Principles of the Constitution reflect a clear faith in the role of education toward social upliftment. In fact many developing countries invest a great deal in education. During the last ten years education in a number of countries in Asia and Oceania have been trying to assess the effectiveness of their education system as exemplified by the achievement of all students (Crellin, 1978).

Whether education will serve the desired purpose or not will be determined to a great degree by its quality. And the quality of an educational system primarily depends on what happens inside the classroom. In particular, it depends on the skills of the teachers, upon their ability to motivate students, upon their overall management of classroom activity. Besides, the limited classroom resources have to be the focal point of any formal education system. Classroom instruction can be meaningfully considered as a process of interaction and communication. Interwoven in this process is the curriculum to be imparted in the most meaningful way with minimal

resources. As far as our country is concerned this becomes even more crucial in the case of the disadvantaged children who are the constant concern of educators and planners. This concern necessitates ways and means of ensuring that children attend school and meet its demands.

It also necessitates early identification and analysis of any stumbling blocks or difficulties that threaten successful learning. Preventing and remedying these difficulties becomes the first step in meeting the broad goals of education.

The present study was based on the assumption similar to those of many others (Anandlakshmi, 1975; Rath, 1982; Rao, 1979) that though the disadvantaged children face difficulties in classroom learning, they do not lack the basic abilities to learn. What they really require is an intense and systematic teaching in a relaxed classroom climate.

Identification of Learning Difficulties

"Evaluation often begins in the classroom when the teacher screens her students for ineffective or inefficient functioning" (Ellingson, 1975, p.46). The rationale for developing the "Teachers Rating Scale" for the present study stems from this observation. The experience in this study indicates that the TRS is an easy to administer and an effective screening procedure. Tobiessen, Duckworth and Canord (1971) demonstrate the effectiveness of teachers' evaluation using a kindergarten rating scale, as do Spivack, Swift, Prewith (1971), and Bullock and Brown (1972) for older elementary age children.

Gregory (1979) refers to the same kind of tool when he says that there are numerous ways which may be used to select "educationally at risk" children. Some of these methods according to him are time consuming and costly in terms of manpower and money. What is required is a technique which would provide us much predictive information about a child with least expense, using data that are easily available. The TRS prepared through the present study provides information to identify "at risk" children as well as delineates the areas of their difficulties which serve as guideline for teachers.

A similar kind of preliminary screening device was prepared by Green, Brown and Francis (1979) in their short term intervention program aiming to improve children's learning skills. The items included were attention, concentration, and behavior in new situations. When a child indicated problems consistently in these areas he was identified as having "poor learning skills".

Several studies suggest that teacher's evaluation may be useful addition to a predictive index (Henig, 1949; Ilg, Ames and Appel, 1965). Keogh and Smith (1970) also found teachers' ratings quite accurate in early identification of high risk and high potential children. Thus the TRS developed in the present study derives support from various other studies in terms of the need for such a device as well as in terms of the item content that tap difficulties in learning.

In the present study when majority of the children from

a single standard were rated as "having difficulties" by the teachers, the credibility of their ratings were suspected. The ratings proved to be predictive ultimately as all the children identified as "having learning difficulties" on Teacher's Rating Scale were retained for the study on the basis of other assessments also.

There are two major advantages of this and other similar scales, especially in Indian conditions. First, a teacher can rate each child at her free time without disturbing the class schedule. Second, teacher's observation is indirect so that a child is not subjected to close security. The results of the present study, therefore, are in line with the present trend toward giving greater credence to the opinions of the teachers.

However, one must not miss out the crucial fact that the final value of such a device ultimately depends on how accurate the teacher is in her observation of populs. Traditionally, caution has been exercised in using the teacher as a screening agent for predicting the future behavior of the students. On the other hand, Fargo, Roth, and Cade (1968) concludes that pre-school teachers are more accurate than pediatricians or psychologists in predicting later school achievement.

On the basis of the present study as supported by various other studies, it can be stated with a degree of confidence that TRS proves to be an efficient and economical measure for screening purposes.

Reading and Its Components

Listening comprehension, word recognition, sound discri-

mination; oral and silent reading are the main components of reading. Failure to acquire competence in these skills can lead to failure in reading. Identifying letters and words is in turn the prerequisite of reading skill. The results of the pre-requisite Reading Test as well as Graded Word Test (oral and written) in the present study indicate that the children were poor in the skills of identifying letters as well as words. Since they had shown obvious deficits in these pre-requisite skills it was no wonder that almost all the children failed to score on any of the components of Reading Analysis Test except one, namely listening comprehension. So poorly developed were their other reading skills that they could not be scored in the other four components leading to the conclusion that they could not read what they could comprehend. This could well be so because children in our school setting are more used to verbal than written communication.

Various studies point out that the children who are weak in spelling have difficulties in various aspects of reading and writing. In a study of 109 backward readers, Schonell (1948) found that in addition to their weakness in reading, children also displayed great weakness in spelling. He reports a correlation of .65 between reading comprehension and spelling for 119 boys, 12-13 years of age. Monroe (1946) found a correlation of .81 between reading ability and spelling for the control group in her investigation. Various other studies (Sparrow, 1951; Russell, 1946) have reported close relationship between spelling and reading.

Malmquist (1958), in a study of factors related to reading disability gave 3 spelling tests of 18 words each, arranged in ascending order of difficulty. The results indicated a high correlation between spelling and reading. The Graded Word Test used in the present study was of a similar nature. During the pre-test, children of both the groups scored very low in reading and writing these words. After the program with increased ability at recognition and writing of various words, they exhibited corresponding increase in scores not only in Graded Word Tests but also in various other components of reading.

In writing words, many consider the nature of errors or quality of response as an important index for formulating methods of improvement. Various classifications are provided by the experts in the field (Schonell, 1948; Husen, 1969). These are wide in range inclusive of errors of reversals, omissions, substitutions, transpositions, confusion, miswriting, habitual errors and repetitions. The major types of errors in Graded Word Test (oral) in the present study were omissions and mispronunciation at the post-test. However no identifiable pattern was found in writing the same words. Prior to the program the quality of the childrens' general responses were characterized by poor letter formation and random scribbling, which was replaced by clear letter formations at the end of the program.

Lack of any specific pattern of errors at any time during the study is a noteworthy aspect. The very purpose of any spelling test is to learn the specific pattern of errors rather

than mechanical record of correct or incorrect responses. Three possible explanations can be given for the absence of a consistent pattern of errors in poor readers. First, it could mean that children did not have any genuine problems leading to typical) spelling errors. Second, it could mean that so poor was their knowledge of alphabets that there was no organized effort at writing words, hence no specific pattern of errors. Third, it could mean that the Gujarati language does not lend itself to the kinds of typical errors that we usually look for but has scope for exhibiting a very different error or response pattern that we have yet to identify.

Though children in the present study could not read even simple words, they did comprehend simple paragraphs read to them, indicating that they possessed the necessary components of receptive language skills. Hence the problem on hand is not one of identifying the etiology of reading difficulties, as one of devising means of enabling them to develop reading skills, since these children were non-readers.

The dismal picture prior to the program gave way to a heartening one at the end of the program. The non-readers of the experimental group had become readers and began a systematic attempt at reading. They comprehended simple paragraphs of their Readers, could recognize and write simple and complex words, began to identify letters through their sounds and could read simple paragraphs silently. However, their word recognition and writing were still to be perfected. Their oral reading indicated errors of repetition and mispronunciation.

In a study of how difficulties in reading develop, Lesgold and Resnick (1981) report that children of grades I to IV exhibited considerably higher errors of omission, repetition and mispronunciation. Similarly in a study of qualitative analysis of oral reading in elementary school children (Malmquist, 1958) the errors included substitutions, omissions, repetitions, insertions and hesitations. A growing body of research literature contrasting good and poor readers at various stages of development is beginning to identify particular components of reading skill that distinguish the contrasting skill groups. The most consistent finding in these researches indicate that people who read "poorly" are also generally poor at recognizing words (Just and Carpenter, 1977; Resnick and Weaver, 1979).

The emphasis in many of these researches is on speed rather than on accuracy of word recognition. Viewing the results of the present study on the component "Word Recognition and Analysis", all the children scored zero prior to the program. In the post-test the children exposed to the program were able to recognize the given words but most of them did so under the category of "analysis" where they had to respond after studying a word but not "flash" where speed was emphasized. Another interesting observation is that children exposed to the program scored more in Graded Word Test (oral) than in word recognition and analysis. There seems to be an association not only between accuracy of word recognition to reading but even "speed" seems a crucial factor leading to accuracy.

Laberge and Samuels (1977) showed that poor readers were less automatic in processing individual words in the sense that they needed to devote more attention to word recognition than did the more skillful readers. In many studies using population of both children (Frederiksen, 1978) and adults (Jackson and Mclelland, 1979) as well as both normal and handicapped readers (Curtis, 1980) it has been shown that those who score low on various reading achievement measures that stress comprehension are almost always slow in assessing individual words. Thus word recognition accuracy has positive implication for general reading ability.

Various studies indicate oral reading as having a greater diagnostic value than an ability for silent reading. This especially applies to the elementary stages of learning to read. It is often not possible to localize an error made by a child in silent reading. We can only determine that the child has or has not understood the meaning of what he has read. But for the most part we can discover by studying his answer exactly where the error was made (Orton, 1937).

On the other hand silent reading is a pre-requisite to independent reading. Bhagatwala (1958) found that silent reading ability depends mainly upon three factors, speed of reading, word meaning and comprehension. This study dealt with high school pupils of Gujarat, particularly of Kaira, Baroda, Surat and Panchmahal districts. The results were interpreted to point out that silent reading contributes to independent reading while comprehension and word recognition

were pre-requisite to silent reading. The results of the present study revealed that the exposure to the program helped children read letters, words and comprehend increasing complexity of reading material. These in turn resulted in their acquiring the ability of silent reading. This is a noteworthy aspect which leads one to assume that children not only read but were at the verge of acquiring the status of independent readers. It also reiterates the fact that reading is a meaning deriving, multi-skilled activity that one has to master various sub-skills of reading to be a successful reader.

The Program

The significant results give support to the effectiveness of the program utilized in the present investigation. Many programs for reading and writing have been evolved in different parts of the world as a result of the felt need to help children with their reading and writing skills. The Santa Monica project is one such program designed by Taylor (1975). It mainly deals with children through behavior modification approach. The Madison School Plan (1971) on the other hand has as its unique feature the way children are grouped and gradually weaned into a regular classroom. Of greater relevance to our context are number of short term and long term intervention programs conducted by the Department of Child Development at the M.S. University, Baroda. These have time and again evidenced the intrinsic ability of disadvantaged children to learn successfully (Pate, 1976; Basu, 1976; Pradhan, Shah, 1980; Guha,

1980; Gupta, 1980). Mani (1981) successfully conducted an individualised instruction program of reading and writing for elementary school children with learning disabilities, in Baroda city.

Most of these programs support the finding of the present study that children can overcome their difficulties and learn to read and write successfully given intensive and meaningful guidance. Desai (1978) conducted a long term project of planned intervention to minimize wastage and stagnation in primary grades and reported tremendous success over the ten year period of work in Bombay.

The striking improvement observed in children's reading skills as an outcome of the intervention program offered in the present investigation could be the result of several factors. It can be interpreted to mean that initially children were poor in reading due to lack of environmental stimulation, or that they were poorly taught by the school teachers, or that inspite of the cumulative deficiencies that had built up, children could learn to read within a short span of three months.

Among the various possible explanations it is the last one on which we will have to capitalize if we wish these children to learn at all. To be able to do so, we will have to design the programs most suited to the children as well as the school system. This is imperative as any program that works in our existing school system would probably be the most acceptable one.

Children with learning difficulties in the present study were those who (1) had an ordinary exposure to reading instruction and had still not learned to read, (2) had the basic potentials for reading, (3) had their sensory capacities intact. The strategy selected for remediation was the group strategy. The rationale for its selection was not only based on pragmatic considerations but also stemmed from the theoretical principles proving the effectiveness of such a strategy (Williams, 1980). In the present study the approach adopted facilitated the following:

- Improvement in academic achievement.
- Raising quality of teacher-pupil interaction.
- Reduction in time spent for an individuals child.

It was possible for the investigator in the present study to give full attention to one group while the other groups were working on their own. The groups differed in size from six to eight on an average. The ideal group size is yet undermined though small groups of four to six have been found successful by others (Williams, 1980).

Teacher : The key to success

Traditionally teaching has been viewed as the process of imparting knowledge and skills required to master prescribed subjects. Teaching has come to mean much more than it once did. Today, teaching means understanding and guiding children as individuals and as groups. The fact that the teacher plays a pivotal role in education cannot be over emphasized. Observation of the teachers in the present study indicates that

they not only failed to teach children the mastery of subject matter but nurtured a negative, almost hostile attitude toward them, often resorting to corporal punishment. Some observations from Ryan's (1960) appear pertinent here. The characteristics of the groups of teachers who had been designated as "good" or "poor" on the basis of ratings by trained observers on 22 dimensions of classroom behavior were analyzed. The good teachers were seen as warm, friendly, responsible, systematic, stimulating and imaginative. The poor teachers were rated as unplanned, egocentric, aloof and dull.

Another interesting and well known study on how teacher's expectations determine pupils' IQ gains was conducted by Rosenthal and Jacobason (1966). Their results showed that for the schools as a while those children from whom the teachers had been led to expect greater intellectual gains showed a significantly greater gain in IQ score than did the control group children. A very similar situation was observed in the present study. The teachers' low expectations from the lower class children came true like a self fulfilling prophecy. Since the home environment could not compensate for the inadequacies of school, with each passing year their deficiencies seemed to have grown. Their low academic performance was probably the logical and most natural consequence of these multiple inadequacies.

Learning Disabilities : An Indian Perspective

A striking feature of the results of the present study reveals that of the 44 children in the experimental group

only one child from standard II was identified as having learning disabilities. In the absence of any other empirical evidence in our country for estimating the percent of learning disabled children in primary schools, this finding comes as quite a surprise. Of course no generalizations are warranted at this juncture but it may be said that estimates in various schools are not likely to be very high. In Western countries a variety of estimates on the prevalence of children who suffer from learning disabilities has been made ranging from one to thirty percent of the school population depending upon the criteria used to determine the disability (Lerner, 1976).

In the present study, the program that helped all the children of his class seemed to have no positive effect in the learning of one single child indicating that the difficulties faced by this child were different in nature than those of his peers. Hence, through a battery of tests the areas of his deficits were identified more specifically.

The subsequent step was to provide remediation in the areas of deficits. To serve the purpose, a profile of this child has been prepared which incorporates the test results, observations and interpretations followed by a program prescription of various exercises, games and activities.

The data from this study is meagre but it does have certain implications for many of our present practices. On the one hand it confirms the teacher's key role in early identification of children with learning disabilities.

This is so because though different from learning difficulty, learning disability is still a learning problem and hence of concern to the class teacher rather than to a specialist alone.

Some of the performance patterns of the learning disabled child on a battery of tests in the present study finds support from similar observations. In a treatment of scores of children on a variety of tests as an aggregate, the individual learning abilities of the specific child may be masked. Where both, individual abilities and disabilities are concealed, no adequate basis for teaching decisions, remedial or preventive exists. Individual assessment, individual programming and individual teaching decisions for the modification of the individual behaviors are implied by this finding.

While it is premature to conclude on any specific aspect of the area of learning disability on the basis of the results, it appears that quite a few pertinent issues can be meaningfully raised. Learning deficits may be as much a function of the learning environment as they are a function of learning organism. Possibly many instances of learning disabilities may involve ongoing relationships between the two. This involves a high risk of labelling a child as learning disabled when he is not. Should this become more evident, teaching may require a continuous functional analysis of behavior on the part of the teacher to ensure appropriate behavior management. It suggests that an adequate basis for preventive/remedial teaching decisions is provided by an on going analysis of classroom behaviors, with emphasis on skill

performance and language related variables involving classroom learning tasks.

The battery of tests used to identify children with learning disabilities in the present study does include tests which try to detect the problem in functional skills and sensory integration. All the same no claim about its flawless accuracy can be made.

Besides, the problems related to identification, the results raise added questions about the field in Indian context. Do all children who show certain atypical traits suffer from learning disability? What special training would the teachers require if they are to identify a child with learning disability? How much time would this involve? Is the prevalence low as revealed through the results of the present study or is it that we have failed to identify? Answers to these issues are not forth coming from the literature for there are controversial opinions on every point.

While these may be the general problems characterizing the field at present the world over, they have added implications in Indian condition. We have to be fully cognizant with the prevailing situation of large classrooms and yet not give up. For, we must recognize a child with learning disability when he exists.

Concluding Comments

What can be said about the "learning difficulties" of disadvantaged children from the data examined in this study? It is clear that there exists in the primary classrooms

studied a significantly large number of children who are reading so poorly by second and third grade that they require special attention from the schools if they are to learn to read at functional levels. It is important to recognize however that this group of low-skill children belong to a disadvantaged group. The etiology of their learning difficulties stem from a range of environmental factors such as poverty, lack of environmental stimulation, incidence of first generation learners and school related variables. Among these, there may be a very small minority who fail to learn due to specific learning disabilities.

Furthermore, in either case, i.e. whether the difficulties in learning are due to learning disabilities or due to environmental deprivation of various kinds, these problem cases should be identified unambiguously on the basis of an effective and efficient assessment procedures. In the case of learning disabilities, this assessment is as crucial as it is difficult.

The ratings of the teachers of children facing learning difficulties proved to be reliable. It seems clear that while the low-skill children were weak in every component of reading that was traced, they were especially weak in basic individual letter and word recognition skills. Their "listening comprehension" was fairly good while their "word recognition skill" was extremely weak. Infact to begin with all of them were "non-readers".

The test battery did not include a strong independent measure of general language skill, especially at the early test points, so poor oral interpretive language cannot be eliminated as a cause of reading difficulty. However, it is clear from the pattern of performance on the comprehension sub-test of Reading Analysis Test that many of the low-skill children apparently had receptive language skills appropriate for their age. Thus, while general language deficiencies may play a role in the reading difficulties of some children. it cannot be concluded that the absence of such deficiencies ensures smooth acquisition of reading skill. On the other hand, it can be said that the absence of fast and accurate word recognition skills early in the course of learning to read will almost always result in deficient reading comprehension ability later.

The instructional program helped children acquire and strengthen various reading skills so that at the end of the program, the treatment group children could read simple paragraphs of first and second grade levels. Though the program had to be limited to the teaching of the Gujarati alphabet, barakhadi, simple and complex words of their complete text lessons and simple paragraphs of the first five lessons, the instruction model was so designed that it covered the entire reading and writing syllabus. The program was teacher-led with children organized into small groups, instructed via activities and work pages so they could work at their individual rates. A variety of hierarchical activities in various

sub-areas of reading provide extensive practice on a vocabulary of words. Although the code is stressed, there is also much emphasis on deriving meaning from the text. The extensive practice on regularly spelled words is also intended to develop a good sight recognition vocabulary. Equipped with these ground skills, they could read silently simple paragraphs. This is an indication that they are on the verge of becoming independent readers.

Despite being so low in reading and writing skills a majority of children learned to read and write significantly well within three months. This raises many questions and leads to certain conclusions:

- The school has failed to develop children's abilities fully.
- School curriculum exceeds children's abilities.
- Children's abilities enable them to take in learning if taught well.
- Children can learn in large groups.
- Teacher is the key person for the success of the program.

The opinions of the teachers was that the program was practical and viable to be implemented in a standard classroom. One of the teachers opined that "The program played an important role in teaching children. It helps us know the child both individually and against the background of the group so that we can know how to teach reading and writing.

It must be stressed that the program in question is only one of the numerous examples of programs introduced in the education system. What needs to be borne in mind is that it is to be implemented in a set-up where an average child is a disadvantaged child, where an average class size is 40 to 45, where there is a dearth of adequate teachers and teaching aids but most important, where the child possesses intrinsic abilities to learn and to learn well.