

Priorities in Educational Research*

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Introduction

In the opening chapters of the two surveys of educational research, which preceded the present one, Buch and Yadav indicated the general trend of educational research in India, and they also discussed the priorities in research. Their views of the priorities were based not only on their own experience of work in this field, which, in the case of Buch, spans three decades or more, but also on the information contained in the two survey reports, indicating the gaps that stood out clearly, as they took a synoptic view of educational research abstracts, classified under various heads in the two volumes of educational research surveys.

Before the survey reports appeared, the Third Indian Year-book of Education was published by the NCERT and was devoted to educational research. Edited by Adaval, priorities of research in education were indicated in this publication also. The first attempt at listing all the dissertations and theses in education submitted to Indian universities for Master's and doctorate degrees was made by the NCERT, even before the year-book appeared. But there was no attempt to indicate priorities. The writer had convened an all-India conference on educational research on behalf of the Education Commission in 1965, and there were attempts to commit an agreement on priorities. However, consensus was difficult. One notices, therefore, that on educational research there is no indication of priorities in the Commission's Report. The NCERT's Educational Research and Innovations Committee announced a set of priorities in 1975, in which the writer had some hand, and it was the first serious attempt to indicate priorities on which there was a general consensus among scholars, cutting across vari-

ous disciplines. This was modified somewhat in the revised version published by the NCERT. This document of the ERIC, which indicates the procedures, rules, etc., of research grants as well as priorities, should receive serious attention of all those who are concerned with prioritization in educational research.

The purpose of this brief account of attempts to arrive at priorities in educational research is to point out that there are some difficulties in listing priorities in research, although attempts have been made by the NCERT as well as by the two previous Survey Reports, and others. It will be useful to understand the difficulties in arriving at a list of priorities in research in education.

Status of Educational Research

Some of the difficulties arise out of the status of educational research as a scientific endeavour to solve educational problems. Education as a discipline has a strong philosophical base. It has taken a long time for it to develop a structure and a body of knowledge on that base, which is characterized by empiricism. The role of observation and experiment in education became important in the European countries, followed by America, about the same time as similar developments were taking place in some of the biological and social sciences. This empirical character of education, resting on a philosophical base, seems to characterize the bulk of educational research in India. With the developments in theory and methodology in economics, sociology and psychology, the last one in particular, education borrowed much from the theories and methodologies of these disciplines. Education, in this process, achieved the status of a scientific discipline (although it became multidisciplinary) and developed a scientific approach to problem-solving, only after the last world war. Thus, its status as a

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scientific discipline is fairly recent. In the Indian Science Congress, there is a separate section for Education, but only nominally, as a recognition of its scientific status, of which the early pioneers of education in our country were very much conscious, and who initiated the first Ph.D. programmes in education. A cursory view of the Ph.D. theses in education listed in *A Survey of Research in Education* (Buch, 1974) shows that a beginning was made in empirical research by the pioneers, followed soon by a greater degree of scientific rigour and sophistication, although in terms of numbers, there were very few theses which would qualify to reach the standards of scientific studies obtaining in India.

An empirical science, as education may be classified in the context of research, has a weakness, viz., the results of research tend to be different in the hands of different investigators. Educational research, as one looks through the three volumes of the survey, is largely empirical and very frequently the observations of one investigator do not tally with the observations of another. One of the strong points of good scientific research is that the results obtained in one set of experiments are either corroborated by the results obtained in another set of experiments, conducted by different investigators, or because of different findings changes in theory and methodology take place. This is mainly because theories are well developed and hypotheses are deduced from theory, and then a carefully contrived design of experiment is prepared to test the hypotheses. This kind of scientific methodology is a recent development in education, and even now, in our country, there are strong reactions against the introduction of research methodology as a compulsory part of the Master's degree curriculum. The philosophical tradition which is at the base of education as a discipline is very strong even now. The status of education as a science, in other words, is still not an accepted view of education, and, therefore, the question of priorities in research is considered very differently by different educators, depending on their bias with regard to the stand the educators take in the matter of raising the status of education as a science. There are quite a few educationists who consider education an idealistically motivated social welfare work, as an art and as a philosophy of man's nature. The priorities in research for them, naturally, are not that important, or when they are important, the priorities are concerned mainly with service.

Education as a Multidisciplinary Field

As a multidisciplinary field, educational research has

some other kinds of problems in the matter of priorities. Thus, with a researcher having a strong background in economics, the priorities are concerned with costs, benefits, efficiency, investment, return and the like. When the researcher has a sociology background, the priorities tend to be the status and role of teachers, social backwardness of pupils and equality of opportunity, curriculum and social change, etc. With psychology as a background, the priorities become testing of learning, outcomes, processes of teaching and learning motivation, guidance and counselling, intelligence, aptitude, interests and personality, adjustment, creativity, social interaction, leadership, etc. One notices an empirical approach, generating more and more information about how the educational system works in our country, but hardly contributing to the development of theory in education, or to practice. Even the generation of information is not guided by a perspective, and, therefore, information generated tends to be partial and, sometimes, redundant.

Questionable Contribution of Research to Practice

The lack of contribution of educational research to improvement of educational practices in classrooms as well as outside has been of great concern to many educators who take a dim view of education because of this, and, particularly, consider research as wastage of effort. But it is not wholly true that educational research has not contributed to the improvement of practice. Many innovations and experimentation done by educationists have found a place in the classroom, or in the examination procedures, or in management, etc. However, the gap between theory and practice in education is noticeable, more because what is taught as sound educational practice is not actually practised, for various reasons, one of which is a lack of knowledge of the linkage between theory and practice and the second is the contradictory nature of results which one often finds in educational research, when a laboratory experiment is tested out in the field set-up by different teachers or practitioners.

Role of Teachers in Educational Research

Teachers and their role in educational research are very important and explain, to a great extent, the state of affairs in educational research. Teachers are concerned with their primary task of teaching, but any research concerned with the process of education, or with the outcomes of instruction and learning, or with curriculum

planning and development, has to take the teacher as the central variable in research, which can hardly be manipulated, according to a design of experiment. Besides, being concerned with the task of teaching, teachers have hardly any time or inclination to do research even for the improvement of teaching, which is their primary task. Not that teachers are not aware of the problems in teaching effectively, but most of them are neither inclined, nor are they adequately prepared to undertake studies and investigations. Some of them do innovate, but these are largely intuitive based on information of what has been done elsewhere by others. Their participation in the quality improvement of education at all levels is essential, but research is not seen by them, generally, as the means by which their participation can contribute to solutions of problems.

Education is a discipline, but it is studied mainly by those who want to be school teachers. As teachers, however, they are face to face with practical problems of education mainly concerned with classroom teaching and examination. The priorities of research are, therefore, the practical problems of teaching and examination.

Facets of Education

Thus, education means different things to different groups of people, because of differences in the background (including training), role and task in hand. Education has different facets, due to which priorities tend to be seen differently, depending on which facet one is concerned with. Thus, for instance, education is a facility, like health, which the Government seeks to provide to all, and, therefore, the problems of administration, planning and resources emerge as priorities for those who are concerned with education as a facility. But a country has also to develop an educational system which may be uniform in character, or pluralistic, and related to manpower needs, employment and socio-economic development. The question of priorities in developing an educational system which suits the national character, needs, and aspirations as well as responds to the challenges of economic growth and development, is important for those who are concerned with education as a system. Likewise, there are the facets of education as a process and as a body of knowledge. This multi-faceted character of education is responsible for the lack of consensus over priorities in research as well as for the large variety of educational research, covering the entire range of activities from concrete and specific social action to the highly speculative and general thinking about

philosophy of education.

Criteria for Priorities

Priority means precedence over something which follows. In logic, for instance, premises precede inference. So priority refers to a temporal order and a logical order. The same thing may not have precedence, both temporally and logically. If education is taken to mean classroom learning, as it is frequently done in a very narrow sense of the word 'education', teaching or instruction takes precedence over anything else in a logical sense. One must have a teacher in order to have classroom learning and, therefore, recruitment of the teacher has priority. But the classroom should first be there in order for the teacher to teach, and, hence, construction of classroom. However, it is difficult to decide on priority, because one can have learning in a classroom without a teacher's physical presence, just as one can have teaching without having a classroom. One can even have both the classroom and the teacher and yet no learning may take place. In other words, the relationships are contingent and methodological, not temporal. How can we decide priority in such cases when most of education is like this? So the question of priority is not strictly a logical matter of precedence, nor is it a matter of taking action in a temporal order. It all depends on points of view, and something extraneous to education.

There must be some other criteria for priorities. The criteria in cases of contingent relationships are usually based on majority of experts' opinions. If most of the experts believe that the teacher takes precedence over the classroom in order to have learning, the criterion for priority is experts' views. But in educational research, experts have different views and consensus is difficult to arrive at. So the criteria of the majority of experts' views will not apply. We may bypass the experts and ask the users, and a consensus of their views may be regarded as the criteria of priority. While a reference to the users regarding their views about the products, and their needs regarding new products is made in the industrial field, it is hardly done in education, particularly because our users are illiterate by and large, and the bulk of the rest are apathetic. However, if agriculture has utilized the users' and the consumers' view-points in developing research, not the whole of it, but a sizable portion of it, it should be possible to refer to the user and the consumer in determining priorities for educational research. As a matter of fact, the present writer has argued in a paper for an international colloquium on educational research and practice

organized by the UNESCO in 1980 that agricultural research offers a better model for educational research than social science models. Our people might, for example, say that a teacher needs priority over building, because there might be sheds available in a village for a school to meet, or building like a thatched hut can be built by the villagers themselves, who cannot produce a teacher, or find one. They will not be able to say who makes a good teacher. This is a question for the sophisticated researchers to answer. One can likewise ask about books for children to read in the classroom. If we ask the villagers what their children should know, they might be able to describe some of their requirements, but honestly throw the burden on the experts to answer the question what knowledge will be relevant and useful. This is a research question. Thus, educational research priorities can be derived from communication with parents, guardians, employers and others. Research is concerned with producing new information which will add to the existing knowledge about a topic or a problem. The problem may be small, temporary and may be practical. Nevertheless, it cannot be solved unless some new information is added to the existing repertoire. There are, however, gaps in our knowledge about the process of education, and these gaps can be identified only by the serious researcher working on one aspect of a phenomenon for a long period of time. This, unfortunately, does not occur in education, and so gaps are not identified in the manner in which it is found in the sciences. In the absence of the convention of a research worker spending most of his time in research in specializing in one area, the best that one can do is to have an annual convention of research workers where only the gaps in knowledge should be identified, followed up by reference to a national research information service, linked to international sources. The Survey Reports have paved the way for such a service, which should now be taken up by the NCERT. This will require computer facilities as well as the setting up of a network of information collecting and processing centres scattered all over the country. One may take a more pragmatic viewpoint in considering priorities. We have a national policy expressed in the Government of India resolution adopted in 1968. Implementation of the policy resolution requires that immediate and greater attention be paid to those aspects of education which have been mentioned in the policy statement. Thus, priorities of educational research should be those problems which need to be tackled urgently in order to expedite the processes of implementation. Some problems may arise during the process of implementation, which also should be consi-

dered to be priorities. This way of looking at priorities in educational research considers the role of educational research as primarily one of information feedback for speedier and better implementation through problem-solving, before, during and after implementation. The research relevant for such a role should cover a wide spectrum, and there is ample scope for everybody to join in a participative process of implementation of national policy. Thus, philosophical research, historical research, research in comparative education, sociology of education, economics of education, educational administration and planning, psychological research as well as experimental education, developmental research, evaluation research and action research, etc. should all be relevant in this context.

Indication of Priority Areas

Having considered priority as that which needs immediate attention for the implementation of our national policy on education, as enunciated by the Government of India's resolution on the subject in 1968, an indication will be given here of some priority areas only. The task of detailed analysis of the policy resolution and the research problems which follow, is left to a select group of competent researchers whom the NCERT may like to commission for this purpose.

Universal education up to the age of 14 is a constitutional directive and has the highest priority in our national policy on education. In order to implement this policy, several things have been done. Thus, a rapid expansion of schooling facilities has taken place, as the four successive all-India surveys have shown. For the age group 6-11 years, schooling facilities have become practically universal. There are, however, still pockets of no schooling facilities scattered all over the country, but particularly, concentrated in geographically remote, hilly, flood-affected, desert areas. How to provide schooling facilities in such areas? What kinds of facilities can be provided, practically? How will teachers be found for remote areas? How can these teachers be trained to tackle the specific problems of these areas?

Although schooling facilities have spread far and wide, 40 per cent of our schools are single-teacher schools. It will not be possible to make such schools get one additional teacher, at least, in the near future, because of resource constraints. If we have to live with single-teacher schools for quite some time more, it is necessary to advise ways and means of enhancing the capability of the single teacher is multiple-class teach-

ing. What are the problems of multiple-class teaching? How can these problems be tackled by the teacher? How can teacher competencies in this regard be improved?

A disturbing feature of the present primary education scene is the relatively low enrolment ratio. Not just primary, the entire period of elementary education from Classes I to VIII is free, and yet, except in Kerala, in all other States, enrolment falls short of 100 per cent, and in some States, it is persistently, lower than the national average. What is the reliability (and even validity) of the enrolment statistics? How can better information on enrolment ratio be collected? Why is the enrolment of girls lower than that of boys in many parts of the country? What incentives will work to bring in girls to schools? What action needs to be taken regarding the factors which reduce the enrolment of girls? Can the action programmes be tested before launching? Apart from girls, children from the backward sections of the society also are not enrolled as much as the others. What are the factors responsible for this? What action might be taken to control such factors? Are there larger issues involved; if so, what are these and how best to go about tackling these issues? It has been suggested that poverty is an important factor in low enrolment of girls and children from the backward sections of the society. How exactly does the economic factor operate in causing low enrolment? Would not the same factor affect the enrolment of boys? Do the economic, social and cultural factors interact to lower the enrolment? If so, to what extent and in what manner? What kind of intervention programme can possibly work in such situations? Will the addition of a pre-school class help? How best to organize such class?

An alarmingly high rate of drop-out in the first three primary classes is another striking feature of our primary school system. The usually quoted national average is 60 per cent drop-out by the end of Class III. How to get reliable drop-out figures? What is the best estimate of drop-out — district-wise and special group-wise? What are the reasons of the drop-out? How many of the factors responsible for drop-out can be manipulated immediately and how many in the long run? What programmes can be set up to overcome the drop-out problem? What do the drop-outs do, now and later? Some believe that we are lucky that many children are left out of schooling, either because they were never enrolled, or because they dropped out, for otherwise the demand on our resources will be too heavy to bear. What exactly is the cost of primary education, elementary education and secondary education? How will this cost be affected by enrolling 100 per cent and reducing the drop-out to

zero? What is the efficiency level of each type of school? How can the efficiency be improved and to what extent?

It has been suggested that one of the reasons why children do not come to school at all, or, after enrolment are irregular in attendance, or drop-out sometime later, is the lack of attraction or of holding-power of the school. How to increase the holding-power of a school? How to make it more attractive? How to make the school building attractive, a decent place, a place of aesthetic interest? How to make the curriculum relevant? How to motivate children to learn from books, from lessons, from school, because they learn from the world around them, any way? What teaching methods need to be devised to arouse an intensive interest in studies? How should teachers be trained to make school learning interesting and not de-motivating, as it is at present? What kind of instructional materials should be produced so as to be cost-effective as well as be attractive to young children in school?

One noticeable aspect of elementary education is the system of promotional examination from one class to the next. In some States, there is even a public examination at the end of primary stage. Some States have also a public examination at the end of the elementary stage, i.e., Class VII. The rate of failure in these public examinations is high. Quite a few children fail in the class promotional examinations in the early years of schooling, and those who fail tend to drop out of school. Considering the wide extent of illiteracy and poverty, it can hardly be expected that parents at home will help the children in learning what the teachers fail to do in school. Besides, considering the subjectivity of essay type examinations, the examinations in the school are likely to be biased against girls and children from backward sections of society. Examinations, instead of acting as motivators, become instruments for punishment. Hence, abolition of promotional as well as public examinations in all classes below Class X has been recommended, so that there is an upward flow of students from Class I to Class X, but there must be continuous internal evaluation, formative rather than summative evaluation, so that there is regular feedback to the child, the parents as well as the teacher, as to the things which the child has mastered and the things which the child has not. It is on the basis of such feedback that the teacher has to plan further learning for the child, and not just go ahead, as is usually done, without taking the responsibility of learning on the part of the child. What do children actually learn in school and at what rate? What do the examinations test? How could these examinations be improved? How should the teacher be prepared for continuous evaluation? What

are the relationships between educational objectives, learning experiences and learning outcomes at the elementary stage, as per curriculum and institutional arrangements, and what exactly is on the ground? What are the abilities, knowledge, skills and attitudes which are expected to develop in the elementary stage, and do these actually develop? What are the various factors associated with the rate of learning and development?

One can go on, in this vein, in listing out problems for research in relation to only one priority area arising out of universalization of education. What has been shown here is that it is possible to derive research problems from a critical analysis of the policy of the Government of

India and its implementation. We have considered only a few topics in the priority area of universal education up to the age of 14, and even then, no attempt has been made to exhaust each topic. The attempt has been to show that the policy statement and its implementation is a major source of arriving at priorities for research, and such research should be of great use in implementing a policy, and even in raising questions about the policy itself, and, by implication, in suggesting a different policy.

In conclusion, it appears that the third survey reports contain many items of research which could be pieced together, critically analysed in terms of the national policy, and it may be possible to find some useful information. This exercise needs to be done.

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