CHAPTER VI

FINDINGS, CONCLUSIONS, IMPLICATIONS AND SUGGESTIONS

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CHAPTER - VI
FINDINGS, CONCLUSIONS, IMPLICATIONS AND SUGGESTIONS

6.1 Summary

This chapter first represents the introduction of the research problem in summarized form and the findings and the conclusions arrived at as a result of analysis and interpretations. Then, implications of the findings of the study have been discussed. At the end, a few possible problems on which further research may be conducted, have been suggested.

6.1.1 Introduction to the research problem

Cost of education are incurred at two domains – the private and the institutional domain. Cost incurred at private domain includes cost incurred by the pupils and by their parents. At institutional domain, cost incurred by the Government/State/Local Authority/or the Institute are included.

Academic performance is a very broad term which includes a lot of variables of it. Otto (1958) considered the pupil personal services to society, library facilities/services, general school building and accommodations variables for academic performance. Machiman (1962) drew attention towards teachers and their qualities and school plant, Raymond (1974) considered the curriculum, supervision, counselling and guidance, school discipline, the teacher personnel, school building and community relations, as determinants of academic performance. Pole (1976) emphasized teaching personnel, school plant and equipment and Burgess (1979) visualized the organization of the school, curriculum, home department, uniform, PTA and examination system as the components of academic performance.

In India, studies on school effectiveness are almost non-existent, through students achievement has been studied which provides indirectly certain information on school effectiveness. The present research thus purposes to study the high academic performance and low academic performance schools to ascertain what type of organizational climate is required in these schools, also vary in terms of the types of schools, that is the management that runs the school, e.g., Government Schools,
Government Aided Schools and Unaided Schools (Private Schools) in respect to the cost incurred by the recipient of education and the institute.

6.1.2 Statement of the Problem

The present problem has been spelt out as under:

"Cost of school Education at Institutional Level: A case Study of two blocks in the District Gurgaon, Haryana".

The present study is therefore, aimed at examining the efficiency of school level of education in terms of their Cost and Academic Performance.

6.1.3 Objectives

The objectives of the present study are as follows:

1) To develop the research tools such as: School Schedule, Village Schedule and District/Block Schedule for the present study.

2) To calculate the Institutional Costs (Total and Unit Costs) for education in the selected schools of Sohna and Nuh blocks of Gurgaon district in Haryana and compare the institutions costs calculated for the sample schools between both the blocks of Gurgaon district of Haryana.

3) To examine the academic performance of the sampled schools taken up for study in both Sohna and Nuh blocks and compare the academic achievement amongst the sampled schools between selected blocks.

4) To assess and compare the impact of institutional costs on academic performance in the selected schools in both the selected blocks of Gurgaon district.

5) To identify the available resources in the area regarding the location of schools, both physical and human within the educational sectors and exploring the score for their optimal utilization for educational purposes within that particular locality.
6.1.4 Procedures of the study

6.1.4.1 Sample

In the state of Haryana, the district Gurgaon was selected for achieving the objectives of the study on the basis of purposive sampling.

The state of Haryana was carved out as a separate state of Indian Union in 1966 from the erstwhile state of Punjab. The uniqueness of the state is that, since inception it has developed economically to a considerable extent. Besides, it has shown a remarkable progress in the field of education. Within the state, district Gurgaon was selected for the study purposely.

The study aims at estimating costs of education in the district of Gurgaon, Haryana. There are very few studies on cost aspects of education that are conducted at micro level. The few exercises on educational planning at district level indicate that district may not form a viable unit of micro level planning. Hence, this study has identified two blocks of Gurgaon district; one relatively developed educationally and socio-economically and the other underdeveloped on the same aspects. They are Sohna block (developed) and the Nuh block (underdeveloped, i.e. of Mewat region) are selected on the basis of purposive sampling to have meaningful comparison between the blocks on various components related to the objectives of study. In these blocks there are majority of Government aided schools and a very few unaided public or private schools, which are on the rise today.

In Haryana, the schools are also divided in level wise, i.e. primary schools are up to class V, upper primary schools are up to class VIII which are now upgraded to secondary level. Hence, the schools of this variety are getting less. Secondary schools are up to class X and senior secondary schools are up to class XII. The present study is covering all the levels of schools in both the blocks of Gurgaon district, i.e. Sohna and Nuh. Out of the total schools located in the selected blocks, 25 percent schools were taken up on simple random sampling basis from each level of schools. The total number of the schools led to 66 which are taken from both the blocks.
6.1.4.2 Description of the tools

The description of these tools is given below:

Tool –I: School Schedule

After the final schedule was prepared, this was administered in each sample school. The financial data and the academic performance data were obtained from the school records. The investigator filled up the schedules after going to each sample school personally. The aspects covered by this schedule are as follows:

1) Items included in the schedule covered general information about the school such as: type of management, information regarding enrolment, retention, marks and grades secured and details of the various fees/funds collected were, also part of this schedule.

2) Institutional cost which includes both recurring and non-recurring expenditure.

3) Students’ academic performance of the school.

4) Infrastructural facilities which include building and its location, its adequacy and suitability, library and laboratory facilities, toilet and drinking water facilities, student-teacher ratio, co-curricular activities, etc.

5) This schedule also contains various information, which help to calculate the cost of education and academic achievement at micro level from collected from the headmasters and principals of selected schools. School schedule was completed with the help of the head of the schools has helped in collecting data that has assisted in analyzing the unit cost and also the performance of institutions.

Tool –II: Village Schedule

The Village Schedules were filled up by the investigator personally from the villages of the sample schools taken for the study. This tool was administered on village Pradhan/Sarpanch in order to collect the meaningful data relating to the following aspects:

1) General information on population, working population, literature population, unemployed and educated unemployed of the village.
2) Expenditure on education and the academic and overall performance of the students.

3) Socio-economic status of village.

4) Occupational trend and income level of parents.

5) Availability of local resources, i.e., human and physical which can be utilized effectively in educational development of that area.

The village schedules were completed with the help of the Sarpanch/Village Pradhan which has helped in collecting data and finally that has assisted in analyzing the same.

Tool–III: District/Block Schedule

This schedule was administered on the sampled district and block level education authorities. This includes the district of Gurgaon and its two blocks, namely, SOHNA and NUH for the current study.

The aggregate financial data were obtained from the accounts branch of the Directorate of Education, Office of DEO (District Education Officer), Office of SDEO (Sub-Divisional Education Officer), Office of the DPEO (District Primary Education Officer), Office of the BEO (Block Education Officer) and Office of the BDO (Block Development Officer). The schedules were filled up by the investigator himself. The aspects covered by this schedule are as under:

1) Three years (year-wise) aggregate and component wise financial data were collected at the district and block level, it includes the income and expenditure details.

2) The school level expenditure on different head was also noted down.

3) Grants received by the district and block level offices were also evaluated.

4) The information on infrastructural facilities available and provided was also collected.
The district schedules were completed with the help of the District and Block Level Officials which has helped in collecting data on expenditure and finally that has assisted in analyzing the data.

6.1.4.3 Statistical treatment of data

Initially, the collected data of three schedules were checked for the detection of inconsistencies and inaccuracies. The data were classified into appropriate categories by eliminating non-essential details through aggregations. Then data were tabulated in such a way as to conform to the basic objectives of sampling in general and the current study in particular. After proper classification and tabulation, some simple statistical/econometric techniques like percentages, mean, ANOVA, Chi-Square ($\chi^2$) of all variables have been computed to analyse the data in the light of the objectives of the current study. Cross tabs matrix is prepared for each and every variable to study the relationship between the variables together. The hypotheses of the study have been tested by applying “F” test.

6.2 Findings

The main findings of the present study are as under:

6.2.1 Findings based on total institutional cost

- It was found that the recurring expenditure was increasing marginally from year to year in both the blocks at all levels/types of education.

- It was also found that the recurring expenses on primary, upper primary, secondary and higher secondary education are not similar in different types/levels of schools in both blocks with reference to total institutional cost.

- The findings also revealed that there is a declining trend of non-recurring expenses in the different types/levels of schools of both the blocks.

- It was found that the non-recurring expenses are not similar (different) in different types/levels of school in both the blocks.

- It was also found that the there is a declining trend from year to year in total expenses in different types/levels of schools in both the blocks.
- It was further found that the total expenses of different types/levels of schools in both the blocks differ significantly.

- The findings also show that there is an increasing trend in case of per student institutional cost (unit cost) of different types/levels of schools in both the blocks from year to year.

- It was found that the per student institutional cost in different types/levels of schools in both the blocks does not differ significantly.

- It was further found that there is a declining trend in unit cost of recurring expenditures on education in both the blocks for the year from 1999 to 2000. It was also found that the per student recurring institutional cost in different types/levels of schools in both the blocks is in the declining trend, viz., upper primary, higher secondary and primary to higher secondary schools.

- It was also found that the per student recurring institutional cost in different types/levels of schools in both the blocks does not differ significantly in regards to the total institutional cost.

- The findings also indicate that the per student non-recurring institutional cost in different types/levels of schools in both the blocks differ significantly.

6.2.2 Findings based on academic performance

- It was found that in both the blocks number of working days per annum is similar.

- It was also found that there is a significant difference in the academic performance of students at the class V level in both the blocks.

- It was further found that there is a significant difference in the academic performance of students at the class VIII level in the two blocks.

- The findings also show that there is a significant difference in the academic performance of students at the class X level in both the blocks.
• It was further found that there is no significant difference in the academic performance of students at class XII level in both the blocks.

6.2.3 Findings based on cost and academic performance

• It was found that the pass percentage and per student expenses is increasing simultaneously and vice versa in all the classes such as: V, VIII, X and XII, both the blocks taken together.

• It was further found out that though the per student expenses in the two blocks are the same, the performance of the students in the two blocks is significantly different in classes VIII, X and XII.

6.2.4 General findings

Besides the above main findings, some general findings based on secondary data and observation has been found out and presented as follows:

1. It was found that the size of population differs between the two blocks due to composition of population and thereby the cultural characteristics exhibit significant difference.

2. It was found that the economic prosperity and quality of life in the two blocks varies clearly and it does not reflect in the quality of schooling facilities, particularly the school buildings, classrooms, equipments, toilets, etc.

3. It was further found that the institutional cost of education is low, when the teacher-pupil ratio is high and vice versa.

4. An analysis of macro level secondary data indicates that the household costs of education account for reasonably high proportion of total factor costs of education in the state of Haryana and they have to be taken into account in any meaningful exercise on state accounts.

5. Unit cost per student has been declining over the years, contrary to the general belief that they have been increasing at a rapid rate. The trend needs to be arrested.

6. The result of the case study of the two educational sample blocks suggests that the some of the findings that are made at the macro level hold true at the micro
level as well. For instance, the total non-recurring costs that lead to physical
capital formation in education form a very small proportion of the total cost of
education.

7. Most of the schools in Nuh block have been suffering from severe shortages of
human resources like teachers and minimum physical resources like buildings,
furniture, equipment, some other basic amenities like drinking water,
electricity, play-ground, etc. However, some schools in Sohna block also
suffer from shortage of human and physical resources but not so severely as it
is in Nuh. Maintenance and upkeep of physical resources of schools has also
been found significantly different in the two blocks.

8. While going through the performance of students in each block it was
observed that besides the shortage of human resources (teachers) in Nuh block
the existing human resources were not fully and regularly available in the
schools. The teachers appointed in Nuh block in a large number used to go
from Delhi and around affecting their presence in the schools. Whereas in case
of Sohna, teachers were mostly coming from nearby places and so were more
regular and available in the school for the stipulated time. This has its own
effect on students motivation and performance.

9. It was found that at the macro level, economic development of a region does
not significantly influence the costs of education in that region. The
comparative evidence on Sohna and Nuh block supports this.

6.3 Conclusions

As the proportion of national resources allocated for education goes on a
steady decline, and at the same time as the demand for education at every level goes
on increasing at a rapid rate, economists of education would be under strain. They
have to make a continuous search for models of educational production that yield
more and more economies, reducing thereby the unit costs of education. In the context
of such a search, it is necessary to have a thorough knowledge of how best the
available resources are being used, before one can suggest how best they can (should)
be used. The present study on costs of education is expected to serve this function.
The study is concerned with two important aspects of costs of education in Gurgaon district of Haryana state, namely:

i. estimation of total and unit cost of education with relation to students academic achievement; and

ii. better utilisation of resources for educational development.

It is to be noted that reduction in the costs of education is not a proper objective in countries like India, where they are already deplorably low. The investigator has analysed the costs of education to know the situation as it exists currently, and more importantly tried to explore the possibilities of better utilisation of the educational resources and utilisation of the resources lying in the society but outside the educational system for educational development. This does not necessarily reduce the costs of education, as additional costs may have to be incurred to utilize the unutilized resources. In overall socio-political atmosphere favouring decentralized planning, there exists great need for studies at micro level. Hence, the major attempt of the present study has been to study the problems of costs of education at micro level.

The proceedings started with a general analysis of costs of education in India at macro level from which several valuable policy inferences have been drawn after having a thorough discussion on the concepts of costs of education. The study has focused the attention on the state of Haryana, analysed educational disparities between the 19 districts in the state and picked up the district of Gurgaon for present study. There are 9 community development blocks and 10 education blocks in the district with varied levels of socio-economic and educational development. The Sohna block and the Nuh block, that have been selected for the present study, represent the two extreme levels of development, the former being the advanced block and the latter underdeveloped.

Micro level study involves identification of the local specific problems, identification of local resources and knowledge of all the details of the constituents of the micro units. It basically involves selection of the smallest viable unit for planning. This is obviously possible at block level. Accordingly, there has been the selection of
schools in two blocks for the study and cost of education in the sample schools of two blocks is calculated. Total and unit costs are estimated by type of schools, by levels of education, by components of schools. The study has addressed to problems of the pattern of utilisation of resources.

After completing the above study some remarks can be made on a range of questions, which were raised and appropriately answered in the course of the study. Looking at the financing of school education, it has been mentioned that the present system needs certain modifications to make the funding pattern more activity-based, student oriented and cost effective.

1. For the financing of school education, the basis of per student or unit cost and total cost would be definitely preferable to the present system as the former ensures more accountability and transparency regarding the use of funds for different activities. It also creates consciousness and awareness to put the money into more useful and prolific activities or need to have the better achievement of the students in the school. Moreover, amongst both the blocks, Sohna has shown better results than Nuh in-spite-of the equal expenses in school education due to various inherent reasons.

2. It was observed that despite certain amount of expenses being made on arranging human resources and other physical resources for education in the two blocks their resources are not being utilized equally and efficiently in both the blocks. These are also not being kept up in the same way which is further affecting their utility for education in these blocks. All these, besides other factors, showing its effect on the level of performance of students in the two blocks.

3. The researcher shall conclude by emphasizing that education is a continuous, life long process and its distribution in different stages is intended to correspond to the various stages of the physical, mental and psychological development of the students. Education cannot and should not be segmentalised in terms of high and low priority areas. All stages of education are integrally inter-related and have to develop in unison. Therefore, provision
of adequate funding for the various stages of education is the sine-qua-non of the balanced development of this important sector of human development.

6.4 Implications of the Study

The importance of any piece of research in education lies in the implications of the findings of the study. This is how the research findings of a study can be made useful.

In the light of the fact that school education is such a huge undertaking, the findings of this study, especially in the context of schools differences, bring out many significant implications to surface.

Statistics on cost of education are used for different purposes, mainly for planning, forecasting, projecting, analyzing, decision making and policy formulations. Besides they are also used for making inter-regional, inter-group and inter level/type comparisons in education. Unit cost of education is of particular importance in educational planning in general and planning the resources and their utilization in particular. Unit cost are also efficiency indicators. The inverse of unit cost is after all, an index of total factor productivity in the production process. Thus, unit cost analysis in education is of utmost importance for educational planning. With the increasing demand for education, there is always need for further expansion both in horizontal and vertical directions. It is, therefore, very necessary to know:

i. how much will it cost to educate one extra student;

ii. how much will it cost in making provisions for an extra class or introducing of a new subject in an existing institution, and

iii. how much will it cost in opening a new institution for given courses and given number of students.

The policy related implications of the study can be listed below:

1. Construction of multi-purpose buildings, which can be used for educational as well as non-educational purposes improve the level of involvement of the community (including other formal sectors) in educational activities resulting in significant improvement in the quality of education on the one hand and reduction in the costs of education on the other. With respect to cost, it is to be
noted that not only the ‘burden’ of the educational department in the government gets lessoned, but also the whole society can reap several economies in the process. This obviously needs integration of educational planning with socio-economic development planning of the economy, besides integration of planning of all sub-sectors of education.

2. In the same way, educated and skilled people belonging to both formal and informal sectors of the economy can also be made use of better education on the one hand and of reducing the costs of education on the other.

3. Cluster approach and school complex practices to educational planning, on its own reduces the total costs of education and also enables better utilisation of community's physical and human resources more effectively in turn contributes to further reduction in the costs of education.

4. This has been exactly verified that ‘small is beautiful in education too’. It is found that teacher-pupil ratio, being the most dominant factor influencing the unit cost of education, can be used as an instrument for regulating the costs of education.

5. Lastly, it would be highly advantageous to open middle or secondary schools, that include the primary classes, than opening a primary school not only from the point of view of normal costs of education, but also from the point of view of effective costs, as dropouts and stagnation between levels are believed to be significantly less in middle and secondary schools. At the same time this will help in improving the quality of primary education on the one hand and in integrating planning primary education sector with that of middle and secondary education sectors on the other.

6. Having spelt out the above implications, it is now the turn of setting of the future course reforms that can be under taken on the basis of the study. In addition to the reforms that have been suggested above, the most important activity is need for drastic reforms in the information system of educational institutions. Proper research can be facilitated and important decision can be made on the basis of past happenings and appropriate data regarding the past.
However, getting right information has been extremely difficult during the course of the study because of lack of any information system which should be efficient and transparent. Setting up such an information system in each institution and then centralizing such information at the Ministry of HRD or the UGC would be extremely beneficial for policy and decision making.

7. Creating a uniform set of rules for the school systems while simultaneously keeping the regional variations in view, is extremely important in order to develop a central character among all these institutions, which is completely lacking at present. This can be done by setting up research and study group which would be helpful in developing a common minimum agreement regarding the approach of funding and working of school systems.

8. The Ministry of HRD must live up to its statutory standards, which at present is lacking both in later and spirit. This is why a serious approach to the funding and other academic functions has not been possible to evolve in all these years. Reforming the character and the working of this apex body responsible for setting up standards for school level educational institutions are pre-requisites to the efficient evolution and implementation of national policies and goals in the field of education. This has to be kept in mind while reforming the working and function of the school education which in turn, would immensely benefit the educational institutions being funded by this august body.

9. The schools should make efforts to generate resources. This may be achieved by activating Parent Teacher Associations, organizing special fund raising campaigns through educational fairs and other such measures.

10. The other methods of raising funds for schools are: organizing cultural events, holding of inter-school competitions and declamation contests, etc. These are important means of making the country aware of the needs of the school, thereby motivating them to provide resources for the institutions.

11. Besides raising resources, the optimum utilization of the existing infrastructure and other resources is also an important step towards augmenting resources.
The effort should be to ensure that the amount invested in education, which is in any case inadequate, should go the longest way.

12. Cost and performance based funding require fairly elaborate, disciplined and transparent administrative procedures, data availability and maintaining a good reporting system which are not available in the present settings. These are to be facilitated positively and simultaneously in order to make the most out of the attempts to reform the system.

13. Besides the above, as the institutional costs calculation helps in identifying the cost of various activities and courses, the policy makers can decide on suitable ways to check increasing costs or devise methods of getting better returns from these costs. The most beneficial point is that, cost of various activities will be judged from the point of view of their requirement for the students' academic needs and would be accordingly funded. This will not only plug wasteful activities but also promote the importance of keeping the academic requirements high on the agenda of an institution. Moreover, blanket subsidization of any activity will be discouraged and this would ultimately benefits the financial management standards of school education system.

14. In the block Nuh it was found that there is no proper supervision of teachers and effective management of educational process whereas the same was better in Sohna block.

15. As per the Minority Commission Report there should be the promotion of vocational and technical education in minority concentration localities. Therefore these norms must be followed in Nuh block as more than 65 percent of the population is of minority group.

16. Looking into the job market perspective there should be sufficient number of counseling centres opened for the students in both the blocks.

17. Last but not the least, having done the present study on the cost-benefit analysis which otherwise proves it self as a path finder for the education authorities, teachers, parents, students and the communities to take a proper decision for the expenses to incur for the education sector and thereby the
existing scarce resources can be utilized optimally and efficiently for unlimited wants.

6.5 Suggestions for further research

One of the outcomes of conducting any research study should generally also be to generate avenues for future researches or to point out the areas it opens for future researches. Having completed this study, the researcher was in a position to learn what improvements could be made; at what stage, what could be more appropriate. But this new insight gained in course of working on this study could not be utilized in the very study as it was not possible to change the strategy in the mid of the course. Hence, it was thought proper to lay down all these points as part of this research report so that future researchers in this area may be benefited. Some suggestions are given below with regard to methodology and widening the scope.

- The present study was conducted only on two blocks of Gurgaon district of Haryana state. The similar study may be conducted to other blocks in other districts of other states. In other words, in a wider geographical area similar type of study may be conducted.

- A similar study can be undertaken on a larger sample with greater variables.

- Similar studies may be undertaken by considering other variables, viz., Administrator, Management, etc.

- The present study was confined to school education only. So similar type of studies may be undertaken at college and university level and also at informal education level.

- A similar study can be undertaken considering the enrolment, estimation of annual value of fixed assets may be conducted in wider geographical areas and on wider samples.

Finally, it is hoped that, the present study may generate effective and helpful follow up work and further research in this area.