



CHAPTER I

INTRODUCTION

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1.0 INTRODUCTION

“Man should be equally important as money, services are as important as goods, and that there must be an emphasis on human welfare, instead of just wealth.

-Alfred Marshall

This applies to our concerned setting also. It is generally seen that goods are valued more than services, but as Alfred Marshall very rightly said that goods and services are equally important, for production of quality goods. The quality goods and expertise of services are of utmost importance similarly for the making of good serviceman. Goods and infrastructure also plays vital role. Additionally, Adam Smith outlined the proper expenses of the government in The Wealth of Nation, Book included in his requirement of a government is to enforce contracts and provide justice system, grant patents and copy rights, provide public goods such as infrastructure, provide national defence and regulate banking. It was the role of the government to provide goods “of such a nature that the profit could never repay the expenses to any individual” such as roads, bridges, canals, and harbours. He also encouraged invention and ideas through his patent enforcement and support of infant industry monopolies. He supported public education and religious institutions as providing general benefits to the society.

In the light of above discussion India is not far behind in her share of educational advancement and reforms. NCERT is the leading institutions working in the field of education. The National Council of Educational Research and Training (NCERT) is an organization set up by the Government of India, with headquarter located at Sri Aurbindo Marg, in New Delhi, to assist and advise the central and state governments on academic matters related to school education. It was established in 1961. NCERT has comprehensive extension programme in which departments of the National Institute of Education (NIE), Regional Institute of Education (RIE), Central Institute of Vocational Education (CIVE) and offices of the Field Advisers in the states are engaged in educational activities. Several programmes are organised in rural and backward areas to reach out to functionaries in these areas. The Regional Institute of Education (RIE), formerly known as Regional College of Education, is a constituent unit of NCERT, New Delhi. The RIEs are set up in 1963 by Government of India in different parts covering various regions. The Regional Institutes were started with the objective of qualitative improvement of school education through

innovative pre-service and in-service teacher education programmes and relevant research, development and extension activities. The Regional Institutes of Education have established themselves as institutes of repute in the area of school and teacher education. The institutes have endeavoured to shoulder the responsibilities and challenges generated by changes in the educational scenario of the country. The Regional Institutes of Education (RIEs) located at Ajmer, Bhopal, Bhubaneswar, Shillong and Mysore cater to the educational needs (pre-service and in-service education) of teachers/teacher educators in the States and UTs under their jurisdiction.

Objectives of RIEs

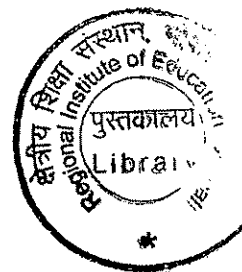
The major objectives of the Regional College of Education are:

1. To develop and provide a programme of teacher education for the multipurpose schools and to prepare teachers of technical subjects, crafts, agriculture, commerce, home science, science and arts.
2. To provide in-service courses for the existing teachers of the practical subjects in multipurpose schools.
3. To provide in-service programme and field services for the teachers, supervisors and administrators concerned with the multipurpose schools in the region in which it is located.
4. To organize and develop a model demonstration multipurpose school.
5. To function as a Regional Center for programme of in-service education and field services for secondary schools in general.
6. To understand pilot studies and research projects in the methods of teaching, and teacher education in relation to the multipurpose school as well as the general secondary school.

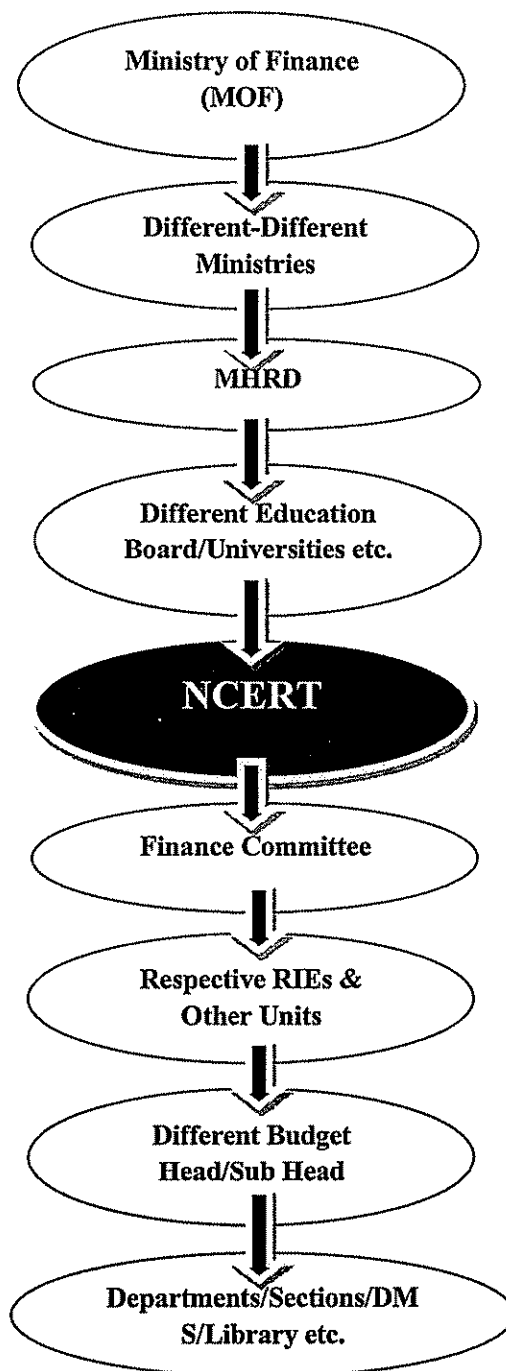
The performance of the colleges in attaining these objectives should be the measure of their success.

The following courses are offered at RIE Bhopal:

1. Four Year Integrated B. Sc. B. Ed.
2. Four Year Integrated B.A. B. Ed.
3. Two Year B. Ed. (Secondary)
4. One Year M. Ed.
5. One Year IDGC



Flow Chart NO. 1.1 - Showing The Fund Flow Of Government Money



- **BUDGET PROCEDURE of THE RIE:-**

1. The operational cost of the College Instructional Material Development Centres will be included in the general operational budget for the college.
2. The operational cost for the Central Instructional Materials. Service Unit will be included as a separate item in the budget of the college where the Central Unit is located.
3. The curriculum coordinator at each college will be assigned appropriate teaching duties in addition to his assignment as Curriculum Coordinator.
4. Adequate provisions shall be made for the recurring and non-recurring items for the college units and for the central unit for such items as paper, printing, supplies, and so forth.
5. Each college should include in its budget funds to cover the participation of its representative on the Instructional Material Coordinating Committee.

(a) Five Year Plan

Five Year Plans form an important portion of the planning process in India. These are formulated, executed and monitored by the Planning Commission of India, which is an institution in the Government of India, headed by the Prime Minister. Indian economy is based on the concept of planning. This is carried through her five-year plans, developed, executed and monitored by the Planning Commission. With the Prime Minister as the ex-officio Chairman, the commission has a nominated Deputy Chairman, who has rank of a Cabinet Minister. Mr. Montek Singh Ahluwalia is currently the Deputy Chairman of the Commission. The eleventh plan completed its term in March 2012 and the twelfth plan is currently underway. Prior to the fourth plan, the allocation of state resources was based on schematic patterns rather than a transparent and objective mechanism, which led to the adoption of the Gadgil formula in 1969. Revised versions of the formula have been used since then to determine the allocation of central assistance for state plans.

(b) Twelfth Five Year Plan (2012-2017)

Planning Commission of India first started talking of “inclusive growth” as an objective while formulating the 11th Five Year Plan which was in operation from 2007 to 2012. The Twelfth Five-Year Plan of the Government of India has decided for the growth rate at 8.2% but National Development Council (NDC) on 27 Dec 2012 approved 8% growth rate for 12th five-year plan. With the deteriorating global situation, the Deputy Chairman of the Planning Commission Mr. Montek Singh Ahluwalia has said that achieving

an average growth rate of 9 per cent in the next five years is not possible. The Final growth target has been set at 8% by the endorsement of plan at the National Development Council meeting held in New Delhi.” It is not possible to think of an average of 9 per cent (in 12th Plan). Somewhere between 8 and 8.5 per cent is feasible,” Mr Ahluwalia said on the sidelines of a conference of State Planning Boards and departments. The approached paper for the 12th Plan, approved last year, talked about an annual average growth rate of 9 per cent. Twelfth five year plan has been spending Rs. 4, 53,728 on education and 12.71 % share. The State Government finalized the budget of the 12th Plan (2012-17) at Rs. 1, 27,373crore after Chief Minister Naveen Patnaik approved the proposal submitted by the Planning and Coordination Department. Earlier, the Government had pegged the plan size for 2012-13 at an all-time high of Rs. 17,200 crore. The annual plan for 2011-12 was fixed at Rs.12,300 crore. The Government has given maximum importance to agriculture, irrigation, infrastructure, education, health services, food security programs, poverty alleviation, economic development of Scheduled Tribes and Scheduled Castes and human resource development.

(c)Cost- Effectiveness Analysis

Cost analysis has become an important educational decision-making tool in recent years, as educators are being asked to do more with less funding and provide tangible evidence of the effectiveness of educational programs. Cost-effectiveness analysis can assist the planner in evaluating educational programs. Cost-effectiveness analysis is a decision-making assistance tool. It identifies the economically most efficient way to fulfill an objective. In evaluation, the tool can be used to discuss the economic efficiency of a programme or a project.

Cost-effectiveness analysis is able to determine which program or intervention provides the most “effectiveness” at the lowest cost. Effectiveness is defined as performance on a single criterion variable (e.g., reading test scores). Costs are monetary (e.g., cost of materials), but benefits can be monetary (e.g., supplies) or non-monetary (e.g., time) in nature. Although this form of analysis can be helpful in deciding which of two programs with similar objectives (e.g., reading improvement) is most effective at the least cost, it generally is not used to compare programs with multiple.

1.1 TYPES OF COST

(a) Recurring Cost

The recurring cost in the study consists of the sum total of fourteen different components, viz. (1) Teaching Cost (TC); (2) Office and Administration (O&A); (3) Electricity and Fuels (E&F); (4) Repair and Maintenance (R&M); (5) Conduct of Examinations (CoE); (6) Extra Mural Activities (EMA); (7) Expenditure on Communication (EoC); (8) Purchase of Consumable Items (PoCI), (9) Transport (T); (10) Legal (LEX); (11) Expenditure on Research and Faculty Improvement (ER&FI); (12) Publicity (P); (13) Scholarships and Fee Concessions (S&FC); and (14) Miscellaneous Items (MI). The cost estimates pertain to the year 2012-13. Per allocation of resources, in developing countries like India, the public authorities did not care much about the efficiency of resources used. The allocation of resources to the higher professional education demands proper and efficient utilization in all respects.

(b) Unit Cost of Professional Higher Education

The higher professional education sector in India has witnessed tremendous expansion and transformation during the last 15 years. However, this high growth experience did not reveal whether any rational policy tool or other general calculations were applied in its expansion and of education costs is highly valuable and powerful tool in the hands of decision makers to evaluate the efficiency of education institutions in terms of resource allocation and productivity (Vanlal chhawna, 2006). It is also held that the unit cost analysis of education has become a useful technique by which one can measure internal as well as external efficiencies of an educational institution in terms of productivity and allocation of resources (Coomb, 1972). Thus, it is important to study the level and components of institutional cost of providing higher professional education in the state.

There are two types of costs as follows

(i) Recurring Cost

Recurring cost is that cost which has been incurred repeatedly in an enterprise to produce a good/service. The recurring cost of an enterprise generally increase every year by the rising prices of inputs used in the production of goods and services. In any educational enterprise, various inputs of recurring nature have very close relationship with the output of educational institutions (students). Thus, the recurring cost is the cost incurred by an institution during an academic session (Singh, 2000). In simple words, recurring or recurrent costs are simply those costs which re-occur frequently to run any development activity or

production process. The recurring cost of an education enterprise essentially includes the salaries (teachers and other supporting staff), consumables, equipment repair and maintenance during the period of one year.

(ii) Non-Recurring Cost (Capital Cost)

The non-recurring or capital costs are costs incurred on the purchase of land, buildings, furniture, fixtures, equipment's, etc. to be used in the production of goods or the rendering of services. In other words, all those costs which are being made in fixed assets in order to bring a project to a commercially operable status fall in the category of capital costs (Coomb, 1972). It is to be noted that the capital costs are not limited to the initial construction of a factory or other business premises, but include, for example, purchase of a new machine that will increase production and last for years. However, capital costs do not include the labour costs, except for the labour used for the construction. Unlike the recurring costs, capital costs are one-time expenses although payment/s may be spread-out over many years in financial report and tax returns. The capital costs are fixed and independent of the level of output. It is also held that, in the production process, the cost of using capital in the form of depreciation and obsolescence must be a part of capital costs. The capital costs are normally expressed on per year basis and have been defined as the yearly cost and return on investment and depreciation of an investment cost (Salim, 1997). The capital costs are associated with the investment expenditures on the land, plant, equipment, inventories, etc. Thus, unlike the labour and operating costs, capital costs are independent of the level of output (www.gcario.org/ipcc/techrepl/appendix.html). The capital cost is viewed as the set of all of those important items which are capital in nature for which one makes payments for the items that last for a number of years. For example, land, buildings, machinery and vehicles (www.blue-mountain.net/feed/terminology). The one-time set-up cost of a plant or project, after which there will only be operational or recurring costs, are called the capital costs (www.businessdictionary.com/capitalcost). Therefore, the important items included in the estimation of capital costs are: (i) value of land; (ii) buildings; (iii) furniture items; (iv) equipment's; and (v) library books (Sambhu, 2004). The unusual expense/s or loss/es that is likely to occur again in the normal course of a business, also form the part of non-recurring costs (capital costs). It includes write-offs such as the design, development and investment costs and fire or theft losses, lawsuit payments, loss/es or sale of assets and moving expenses. In nutshell, the non-recurring costs include investment in land, building and other physical infrastructural assets. These costs are there to create the seat of education (Singh, 2000). It means the capital costs are inclusive of all the durable items such as value of land, buildings, furniture and office, laboratory and workshop equipment's, library books and all

other non-recurring items (Salim, 1997). Thus, capital costs precisely refer to the costs incurred on the purchase of land, buildings, construction, equipment's, books, etc., to be used in the production of goods or the rendering of services.

(c) Relevance to Measure Capital Cost

The estimation of capital cost of education has remained a neglected area of research in India. Even, the Report of Education Commission, 1964-66 (popularly known as the Kothari Commission) have hinted about this research gap in estimating and analysing the institutional cost (Salem, 1997). The capital expenditure invested in creating educational infrastructure determines the quality and quantity of physical facilities in an education institution. Estimation of capital cost is essential for the purpose of perspective planning pertaining to human resources in India or elsewhere. Further, it is stated that the future capital requirements would also depend on the existing capital stock, plans for the future and norms regarding size of classes, technology of building, nature and methods of instruction, content of teaching, etc. (Garg, 1985).

(d) Per Teacher Salary

Component-wise analysis of recurring cost showed that teaching cost has become the most important part of recurring cost. Since the teachers have crucial role in the delivery of education services, it is very interesting to examine per teacher salary paid by the sampled colleges/institutes imparting professional higher education in Punjab.

1. EDUCATIONAL EXPENDITURE BY PURPOSE

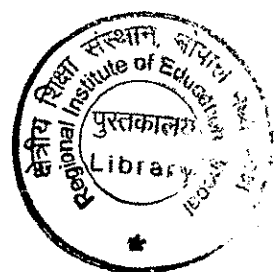
A. Recurring Expenditure

1. For instruction:

- (a) Salaries
- (b) Text-books
- (c) Other instructional expenditure

2. Other recurring expenditure:

- (a) Scholarships and grants for studies in the country and abroad.
- (b) Welfare services such as canteens, transport, boarding and sport.
- (c) Maintenance of building and equipment.
- (d) Operations of building (fuel), light, water and gas.
- (e) Other recurring expenditure as specified.



B. Capital Expenditure

1. Purchase and development of land
2. School building, classrooms, laboratories and fixed equipment
3. Other durable instructional equipment, tools, microscopes, television, etc.
4. Welfare facilities residence halls, sport installations, etc.

2. EXPENDITURE BY LEVEL AND TYPE OF EDUCATION-PUBLIC AND PRIVATE EDUCATION

C. Debt Services

1. Pre-primary
2. Primary
3. Secondary
4. General
5. Vocational(not technical)
6. Teacher training(usually for teaching at the first level)
7. Higher education(third level)
8. University (or equivalent degrees granting)
9. Non-university (post-secondary but not leading to an academic degree or equivalent award)
10. Teacher training
11. Other
12. Special(for the handicapped or maladjusted)
13. Adult (general or vocational at first or second level)
14. Administration

1.2 COST OF EDUCATION

The cost of any economic activity could be measured from numerous angles and perspectives. In fact, all the stake holders bear the cost either as the suppliers of activity or as the demanders/users of that activity/service. The cost of education refers to the cost incurred by the state government or private sector for providing education to the citizens. Thus, the cost of education is divided in to two broad categories, i.e. institutional cost and private cost (Kumar, 2004). The private cost refers to the part of expenditures/investments which are incurred either by the parents or students or both (Kumar, 2004). It means that financial expenses incurred by the students or parents or both (including relatives, etc.) in a year for acquiring education is called the private cost. Private cost of education may be

classified into two categories: (i) academic cost (ii) maintenance cost. Academic cost refers to expenses on the items such as fees and funds paid to the institution (i.e. tuition fees, examination fees, library fees, laboratory fees, etc.), payments made for getting private coaching, books, stationery, instruments, etc. Maintenance cost includes expenses incurred on clothing, transport, boarding and lodging and other sundry expenses (Kumar, 2004). It is also known as the incidental cost. The academic cost is, therefore, defined as the expenditures which are directly related to getting oneself formally educated. The major components of academic cost are the pre-admission cost, fee and funds given to the college/institute, private tuition fee, and cost of books, stationery, project/thesis work, study tours and other instrumental costs. On the other hand, the cost that is not directly related to the instruction is referred as the incidental cost. Incidental cost consists of travelling cost, hostel expenses, clothing, entertainment and others (Kumar, 2004). Private Cost is borne by the students or his/her parents/guardians. It includes tuition fees, examination fees, expenditure on books, stationery, board and lodging, transport and other incidental expenses (Singh, 2000).

In 2000, the United Nations Millennium Declaration established ambitious goals for poverty reduction, focusing on education and health outcomes. But the route to achieving such goals was not clear: there were thousands of competing interventions to reduce poverty, and a research base not always capable of identifying the most cost-effectiveness options (Duflo 2004, Duflo and Kremer 2005, Savedoff et al.(2006). Fortunately, the quantity of impact evaluations in education and health grew rapidly, and they increasingly applied high-quality experimental research designs. The growing number of impact evaluations has facilitated reviews of the most effective interventions in education and health. Such reviews provide advice about how to allocate scarce resources across a range of competing interventions, partly by ruling out interventions with zero or even harmful effects. But, as authors note, it is difficult to choose among a range of effective intervention unless impacts are considered alongside costs. Consider the popular education intervention of reducing the number of students per classroom in primary schools. Research in the United States and Latin America has found that class size reduction is an effective way of increasing students' tests scores, and that its effects on test scores may even be larger than alternate interventions (Urquiola 2006, Schanzenbach 2007). However, class size reduction may still be less cost-effective, since it costs more than competing interventions to raise test scores by an equivalent amount (Levin et al.1987, Loeb and McEwan 2010).

1.3 USE of COST-EFFECTIVENESS ANALYSIS

Studies of the effectiveness of educational interventions are very common. Studies of their cost-effectiveness are rare. What might account for this discrepancy? There may be many reasons. Evaluators of social programs rarely have background in cost analysis. Few programs or textbooks in educational evaluation provide training in cost-effectiveness analysis. That decision makers are often unfamiliar with cost-effectiveness analysis limits their ability to evaluate and use such studies. Yet, in the early 1980s, the field of health was also limited in terms of both the production and use of cost-effectiveness studies. By the early twenty-first century, the concept had been widely applied to health decisions in response to severe resource stringencies in health care. Because the field of education is pressed with similar resource constraints, there might be increased development and use of cost-effectiveness techniques in educational decision-making.

These costs are summed up to obtain total annual costs, and they are usually divided by the numbers of students to get an average cost per student that can be associated with the effectiveness of each intervention. The ratio of cost per unit of effectiveness can then be compared across projects by combining the effectiveness results with costs. Alternatives with the largest effectiveness relative to cost are usually given highest priority in decision-making, although other factors such as ease of implementation or political resistance need to be considered. The cost analysis can also be used to determine the burden of cost among different government or private entities where each alternative has different possibilities in terms of who provides the ingredients. In this respect it should be noted that the total cost of an intervention must even include volunteers and donated resources, although the cost to the sponsor may be reduced by others sharing the cost burden through providing resources in-kind.

1.4 STATEMENT OF THE PROBLEM

The problem of the proposed study has been worded as follows-

“A Study on Cost- Effectiveness Analysis of Expenditure Incurred on B. Sc. B. Ed. Course in the Light of Objectives of RIE Bhopal”

1.5 NEED AND JUSTIFICATION OF THE STUDY

The need of the study is arises due to strengthening of the institution to improve government expenditure accountability. There are five RIE's in India, situated at Ajmer, Bhopal, Mysore, Shillong, and Bhubaneswar. Around 500 employees are working in these

five RIEs. These institutes have different courses. Approximately, 500 to 600 students are pursuing education in each RIE. The courses offered at RIEs are exclusively meant for producing quality teachers. These RIEs are working in the field of education since 1963, especially B. Sc. B. Ed. IV year. The courses are fully funded by government; B. Sc. B. Ed. IV year course is graduate course. So, it may happen that after passing this course, students may go for higher education in other courses which may not related to teaching. In this case, the expenditure incurred on them will be of no use as they may not opt for teaching profession. Therefore, the present study intended to find out the per head expenditure of B. Sc. B. Ed IV year student. At the same time, in the present research the job status of B. Sc. B. Ed. students of Batch 2010-2011 also find out so as to know the fruitfulness of the expenditure incurred on them. It also focussed on the aims of the B. Sc. B. Ed. students of year 2013-2014.

1.6 OBJECTIVES OF THE STUDY

The objectives of the proposed study were as follows-

1. To study the objectives of RIE in opening of B. Sc. B. Ed. course.
2. To study the total expenditure incurred on B. Sc. B. Ed. course in the year 2012-2013 of RIE, Bhopal.
3. To study the educational or occupational status of B. Sc. B. Ed. students studied in the year 2010-2011 at RIE, Bhopal.
4. To study the professional goal of B. Sc. B. Ed. students studying in the year 2013-2014 at RIE, Bhopal.

1.7 OPERATIONAL DEFINITION

Cost: -cost refers to an expenditure of something, such as time or labour, necessary for the attainment of a goal. Cost may be defined as the expenditure made to achieve an object. It is an expenses incurred in litigation; especially those given by the law or the court to the prevailing party against the losing party.

Cost-effectiveness Analysis: -cost effectiveness analysis is closely related to cost – benefit analysis in that both represent economic evaluations of alternatives resources use and measure costs in the same way. It is a decision- oriented tool, in that it is designed to ascertain which means of attaining particular educational goals are most efficient.

Expenditure: - it is the spending of money on something; to analyse the spent money on per head expenditure on B. Sc. B. Ed. students.

1.8 DELIMITATION OF THE STUDY

The study was conducted under the following constraints:

1. The present study is delimited to the RIE, Bhopal.
2. The study was conducted on 200 students only.
3. The study is delimited to the four years B. Sc. B. Ed. students (2013-2014) of RIE, Bhopal.
4. The study is delimited on passed out students of B. Sc. B. Ed. year (2010-2011) of RIE, Bhopal.

1.9 CHAPTERIZATION

Present study was proposed to organise into five chapters. This description is given below.

Chapter-I is introductory in nature. It introduces need of the study, statement of the problem, objectives and mentions delimitation of the study also.

Chapter-II presents review of related literature and provides foundation for the research problem.

Chapter-III deals with the methodology, research design, sample, tools used, data collection procedure and statistics used.

Chapter-IV includes analysis and interpretation of the obtained data.

Chapter-V is of summary and conclusion. This chapter deals with findings, conclusion, and educational implication of the study and also includes suggestions for further research.

