CHAPTER II

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CHAPTER II

PROBLEM AND PROCEDURE

2.1. INTRODUCTION

In India, the post-independent era has witnessed a noteworthy phenomenon of unprecedented expansion of education at all levels. Enormous sums of money were allotted in all the Five Year Plans for spreading education and to give the benefits of education up to Higher Secondary School stage to different strata of society, especially to the disadvantaged and underprivileged.

There has been a phenomenal increase in the number of secondary schools, the enrolment therein and also in the expenditure on secondary education.

In 1946-47, there were only 3,659 high schools in India. This number stood at 7,238 in the year 1950-51, the year with which an era of Five-Year Plans began in India. The number of schools increased to 10,833 in 1955-56, to 17,257 in 1960-61, to 26,000 in 1965-66, to 50,000 in 1978-79 and shall increase to 60,000 in 1984-85.
In 1950-51, the number of school-going children at the secondary school stage was 1.21 million; in 1960-61, it was 3.03 million; in 1973-79, it was 11.21 million, and shall increase to 16.70 million in 1984-85.

The increase in enrolment has been encouraging in respect of pupils not only in urban areas, but also in rural areas. The increase in enrolment has also been encouraging in respect of girls.

With regard to the secondary education, the previous three decades witnessed a steady increase in expenditure. In 1950-51, it was 200 million rupees; in 1960-61, it was 1.03 billions; in 1978-79, it went up to 2.41 billions, and shall increase to 3 billions in 1984-85.

Similarly there is enough evidence that there has been a meaningful increase in the total number of teachers working in secondary schools. The emphasis has always been on providing trained teachers. In 1950-51, the number of teachers was 0.127 million; in 1960-61, it went up to 0.296 million and during 1978-79, it was 0.85 million and will be 1.11 million during 1984-85.  

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Our educational planners, in good faith are carrying out sincerely the directives set down in the constitution, namely, universalization of educational opportunities. But unfortunately, as a result of this enormous expansion, the standard of education suffered a severe set back.

The standards reached at the end of the first ten years of school education at present are far from satisfactory. We, therefore, recommend that for the next ten years the principal effort in all the States and Union Territories should be directed towards the qualitative improvement of this stage of school education so that its wastage—which reaches appalling dimensions at present—is reduced to the minimum. With a substantial reduction in wastage and with better inputs in terms of teachers, curriculum methods of teaching and evaluation, and facilities, we believe it is possible to raise within a decade or so the existing standard at the end of Class X to the standard now being attained on the completion of the higher secondary course. In other words, the schools will add, not one year of time, but one year of content, and achieve in a period of ten years what is not being done in eleven.

Consequent to the introduction of the plus two stage, the curricula in all the subjects were revised, upgraded and standardized. Thus, the suggestion of the Education commission was carried out.

One of the most important reasons for the deterioration

In the standards of education is the old and unchanged system of education based on wrong and unprogressive type of examination procedures. The percentage of failure at all public examinations is very high. This has resulted in colossal wastage in secondary education in terms of human resources, time, energy and money which India can ill-afford. In order to remedy this situation, the Government of India, from Fourth Plan Period onwards, has been supporting many programmes of qualitative improvement including innovative reforms in secondary education stage all over the country.

The 1000-Mark Scheme introduced by the SCERT, Tamil Nadu during the year 1972-73 proved to be a failure due to certain internal defects. At present, Internal Assessment scheme is present in limited sense in the science subjects only. This has proved to be a success. So, it is felt that Internal Assessment scheme may be extended to Humanities with the hope of obtaining success.

If Examination Reform is to be more effective and fruitful, Internal Assessment scheme and Question Bank must go hand in hand.

The Higher Secondary School stage is the connecting
link between Secondary and Higher education. As such, if this Examination Reform is introduced at the Higher Secondary School stage, the transition from Higher Secondary School stage to the University stage will be bridged in a natural and normal way.

2.2 THE DEFINITION OF THE PROBLEM:

The present research is entitled, "A STUDY OF THE PERCEPTIONS OF THE SCHOOL COMMUNITY IN THE CITY OF MADRAS ABOUT REFORMING OF THE PRESENT EXAMINATION SYSTEM OF THE HIGHER SECONDARY SCHOOL STAGE IN TAMIL NADU".

Here, it may be appropriate to define certain terms used in the statement of the problem and its scope for better clarity.

THE PRESENT EXAMINATION SYSTEM:

The phrase 'the present examination system' refers to the examination system as obtained at present at the Higher Secondary School stage in Tamil Nadu and the possibility of introducing Internal Assessment and Question Bank in the examination system as reforms.
SCHOOL COMMUNITY:

The phrase 'School community' refers to the teachers serving in the various Higher Secondary Schools in the city of Madras under the administrative control of the Chief Education Officer, Madras.

PERCEPTIONS:

B.E. Horace and C.E. Ava define perception as an event in the person or organism, primarily controlled by the excitation of sensory receptors, yet also influenced by other factors of a kind that can be shown to have originated in the life history of the organism.3

One of the definitions given to perception by J.P. Chaplain in his "Dictionary of Psychology" is that perception is an intuitive awareness of truth or immediate belief about something.

However, in this investigation the term, 'perceptions' is used in its simple meaning, namely, visualizations or ideas. It is envisaged to examine the perceptions of the school teaching community about introducing Internal

Assessment scheme and Question Bank as reforms in the Higher Secondary School Examination system. Their responses will be placed on a continuum viz, 'Strongly Agree', 'Agree', 'Doubtful', 'Disagree' and 'Strongly Disagree' on a Five-Point scale.

HIGHER SECONDARY SCHOOLS:

The phrase 'Higher Secondary Schools' signifies the schools with XI and XII Standards (Plus Two Classes) which receive Grant-in-aid from the Government of Tamil Nadu. These schools are under the administrative control of the Director of School Education, Tamil Nadu.

CITY OF MADRAS:

The phrase 'city of Madras' refers to the Higher Secondary Schools under the administrative control of the Chief Education Officer, Madras.

Thus, the present research is an attempt to study the perceptions of the school teaching community of Higher Secondary schools. For the measurement of perceptions, it was decided by the investigator to construct and standardize an 'Examination Reform Description Questionnaire'. However, it is absolutely essential to
break up this broad aim into specific objectives, which will lead to indepth study of specific areas of the problem. Keeping this viewpoint in mind, the following specific objectives are formulated.

2.3 THE OBJECTIVES OF THE PRESENT STUDY

The overall purpose of the study is to examine the perceptions of the teaching community of Higher Secondary schools in the city of Madras about introducing Internal Assessment and Question Bank in higher secondary classes, and to ascertain whether or not their perceptions in this regard are influenced by their biographical and institutional backgrounds.

In order to carry out this, the followings are the objectives of the present study.

1. to design and to validate an Examination reform Description Questionnaire that would measure the perceptions of the teaching community of the Higher Secondary Schools in the city of Madras.
2. to examine critically the perceptions of the teaching community of Higher Secondary Schools about the Academic and the Administrative Components and Issues related to the introduction of the Internal Assessment
scheme and Question Bank as reforms in Examination system.

3. to study the Varimax Factors of the tool developed and standardized by the investigator for the teachers of Higher Secondary Schools.

4. to determine the extent to which biographical and institutional variables such as Sex, Age, Experience, Subject of Specialization and type of Management of the sampled teachers of Higher Secondary Schools, bear relationship to their perceptions about the introduction of Internal Assessment Scheme and Question Bank at the Higher Secondary Education Stage.

2.4 HYPOTHESIS:

The following null hypothesis is tested in this investigation.

The independent variables (One Institutional variable and Five Biographical variables) associated with the school teaching community and given below will make no difference to the perceptions of the Examination Reform to be introduced at the Higher Secondary School stage.

i) Institutional Variable.

1. Type of Management.

Government/Non-Government Schools.

ii) Biographical Variables.
1. Sex
   Men/Women
2. Age.
   Below 40 years/Above 40 years.
3. Experience
   Below 15 years/Above 15 years
4. Subject of specialisation
   Science/Humanities.
5. Professional Qualification
   Post Graduates/Inducted Teachers.

2.5 THE SCOPE OF THE STUDY:

   As stated above, the problem for the study is determination of the perceptions of the teachers of Higher Secondary Schools. The study includes all the Higher Secondary schools located in the city of Madras. As the study is conducted only in the city of Madras, socio-economic, urban and cultural influences cannot be ruled out. As such, it is possible that some of the findings may not be applicable to all sections of the teachers. However, the findings from the theoretical point of view, should be reasonably indicative of general pattern of relationship among the variables under study.
The present study considers the following components of Examination Reform, namely

a) Examination Reform—General
b) Internal Assessment—Concept
c) Internal Assessment—Practice
d) Internal Assessment—Problems
e) Internal Assessment—Values
f) Question Bank—Concept
g) Question Bank—Practice
h) Question Bank—Problems
i) Question Bank—Values

The correlational studies in this investigation are confined to the biographical variables such as (a) Age, (b) Sex, (c) Teaching Experience, (d) Academic qualifications, (e) Subject of specialization and Institutional variable such as (f) Nature of the Management of the Institution.

In a questionnaire research of this kind, there is the possibility of the respondents being not frank and honest about their responses. About 75% of the teachers in the sample were contacted in person and good rapport was established with most of them to overcome this error.
2.6 THE SAMPLE:

There are 134 Higher Secondary Schools in the city of Madras which receive Grant-in-aid from the Government of Tamil Nadu. All the Higher Secondary Schools in the city have been selected for the study.

GROWTH OF HIGHER SECONDARY SCHOOL STAGE IN TAMIL NADU:

Secondary education plays a vital role in the educational system of the country. It is a link between the primary education and higher education. Primary teachers come from secondary schools. Hence good standards in secondary schools have to be maintained.

Falling on lines with various commissions, the Secondary School stage has undergone expansion in Tamil Nadu. In the post-independent era, the pupils wrote their Secondary School Leaving Certificate (S.S.L.C) Examination on the completion of Form VI which is equivalent to the present Standard X.

On the recommendation of the Secondary Education Commission, it was decided to split the Intermediate Stage into two parts, one going to the schools and the other to the university, and thus to introduce a uniform school
stage of 11 years. Thus, the S.S.L.C examination at the end of Form VI was conducted for the last time in 1961. In the transitional stage, in the year 1962, pupils wrote their S.S.L.C Examination at the end of Standard X. The duration of the course was 11 years, i.e., primary 5 years, upper primary from I to III Forms, and high school from Standard VIII to X. As a result of the recommendation of the Commission, vocationalization was introduced in the year 1961 at Std. IX.

From 1963 onwards, the State had a uniform course of 11 years in the Secondary Education. The vocationalization failed miserably, because introduction of specialization was too early.

On the recommendations of the Education Commission of 1964-66, the Government of Tamil Nadu decided to introduce the 10+2+3 pattern of education in a phased manner in Tamil Nadu. The Government of Tamil Nadu constituted the 'Board of Higher Secondary Education' to be in charge of the plus two stage of the 10+2+3 pattern of education. The Board, under the chairmanship of the Director of school Education, suggested the course of studies for the plus two stage. 4 The first year of

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Under the new pattern, two streams of options were introduced, Academic and Vocational options. The Higher Secondary Course is the terminal for some and preparatory for higher studies for others.

The teaching community of the Higher Secondary schools from whom responses were collected for this investigation was broadly classified under two categories namely Post-graduate teachers and Inducted teachers.

Post-graduate teachers:

They are the teachers who possess post-graduate degrees in the respective subjects they teach.

Inducted teachers:

When the Government of Tamil Nadu introduced Higher Secondary Education in the year 1978-79, the required number of trained post-graduate teachers to teach various
subjects offered at the Higher Secondary School stage level, especially the science subjects, was not available. So, on the recommendations of the heads of the institutions, the Government drafted sufficient number of graduate teachers who have been teaching the subjects for the high school classes for a good number of years. Such teachers are referred to as Inducted teachers. In order to increase the professional efficiency and to improve the knowledge-content and to keep abreast of the modern trends in the subjects concerned, the S.C.E.R.T, Madras in active and close collaboration with the University of Madras, took necessary steps to organize orientation courses as well as correspondence-cum-contact programmes leading to a diploma which is equivalent to that of post graduate degrees for the inducted teachers.

Although this study is of an investigation type, all possible efforts have been made to ascertain the factors that determine their perceptions by Principal-Axes Method and Varimax Rotation Procedure.

Table 2.1 shows the sample size of the school teaching community under the institutional and biographical variables.
### Table 2.1

**THE SAMPLE-SIZE OF THE TEACHERS OF HIGHER SECONDARY SCHOOLS UNDER THE INSTITUTIONAL AND BIOGRAPHICAL VARIABLES**

<table>
<thead>
<tr>
<th>Serial Number</th>
<th>Variables</th>
<th>Teachers sampled No</th>
<th>In percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td><strong>Management</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Government</td>
<td>130</td>
<td>25.90</td>
</tr>
<tr>
<td></td>
<td>Non-Government</td>
<td>370</td>
<td>74.10</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>500</strong></td>
<td><strong>100</strong></td>
</tr>
<tr>
<td>2.</td>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>264</td>
<td>52.80</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>236</td>
<td>47.20</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>500</strong></td>
<td><strong>100</strong></td>
</tr>
<tr>
<td>3.</td>
<td><strong>Age</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Above 40 years</td>
<td>190</td>
<td>38.00</td>
</tr>
<tr>
<td></td>
<td>Below 40 years</td>
<td>310</td>
<td>62.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>500</strong></td>
<td><strong>100</strong></td>
</tr>
<tr>
<td>4.</td>
<td><strong>Experience</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>More than 15 years</td>
<td>211</td>
<td>42.17</td>
</tr>
<tr>
<td></td>
<td>Less than 15 years</td>
<td>289</td>
<td>57.83</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>500</strong></td>
<td><strong>100</strong></td>
</tr>
<tr>
<td>5.</td>
<td><strong>Subject of Specialisation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Humanities</td>
<td>243</td>
<td>49.60</td>
</tr>
<tr>
<td></td>
<td>Science</td>
<td>252</td>
<td>50.40</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>500</strong></td>
<td><strong>100</strong></td>
</tr>
<tr>
<td>6.</td>
<td><strong>Professional Qualification</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Post-Graduate teacher</td>
<td>387</td>
<td>77.71</td>
</tr>
<tr>
<td></td>
<td>Inducted teacher</td>
<td>112</td>
<td>22.29</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>500</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>
2.7 PROCEDURE:

For realizing the specific objectives as mentioned earlier, a tool was constructed by the investigator to measure the perceptions of the teachers of the Higher Secondary Schools about the feasibility of introducing Internal Assessment Scheme and Question Bank as Examination Reform at the Higher Secondary School stage.

Appendix A shows the list of the names of the Higher Secondary Schools located in the city of Madras, under the administrative control of the Chief Education Officer, Madras.

2.7.1 THE COLLECTION OF DATA

The main instrument for collection of data and obtaining information was through a questionnaire designed by the investigator himself.

In general, the term 'Questionnaire' refers to

'A device for securing answers to questions by using a form which the respondent fills in himself.'

So, a questionnaire is a tool consisting of questions filled up by the respondent himself.

B. Davis and Johnson define questionnaire as

'A systematic compilation of questions that are submitted to a sampling of population from which information is derived'.

A questionnaire is a form of compilation of questions. This form is given to a sample of population and the information is obtained from the sample.

The questionnaire dates back to Horace Mann, who is credited with having used it as a research tool in 1847. Sir. Galton later on undoubtedly improved and used extensively the questionnaire.

In using the questionnaire, typically we assume that the respondent

1) Is a competent source of data (that he is able to answer).

2) Will provide data willingly.

3) answers questions in the form intended and with integrity.9

The questionnaire for Higher Secondary School teachers contains 115 items under 9 components, namely,

1. Examination Reform—General
2. Internal Assessment—Concept
3. Internal Assessment—Practice
4. Internal Assessment—Problems
5. Internal Assessment—Values
6. Question Bank—Concept
7. Question Bank—Practice
8. Question Bank—Problems
9. Question Bank—Values

The tool was administered personally to 75% of the teachers of the Higher Secondary Schools so as to obtain reliable data in time. The personal contact helped the investigator to clarify and discuss certain issues connected with the problem with some of the teachers. They cooperated in a professional manner with the investigator in supplying the information which the investigator asked for.

On the whole, data were collected from 500 teachers of Higher Secondary Schools. The sample covered 25 per cent of the population. The responses received from the teachers were enthusiastic and encouraging during the collection of the data.

2.7.2 THE SYSTEM OF ANALYSIS OF THE DATA:

The main objective of the present study is to construct and validate the Examination Reform Description Questionnaire. All the respondents were asked to indicate their responses on a Five-Point scale. These are:

- 5. Strongly Agree
- 4. Agree
- 3. Doubtful
- 2. Disagree
- 1. Strongly Disagree

The respondents were requested to encircle the number against each item on the scale to indicate their opinion.

The data were processed through computer for eliciting Varimax Factors to ascertain their factorial composition and for studying the differences between the following bi-variate groups by the method Analysis of Variance.
1. Men and Women
2. Below 40 years and Above 40 years
3. Less than 15 years of teaching experience and more than 15 years of teaching experience
4. Science Faculty and Humanities Faculty
5. Post-graduate teachers and Inducted teachers

The statistical data were presented mainly in the form of tables for the sake of clarity and ease of comprehension.

2.8 **THE SCHEME OF CHAPTERS**

The next step after definition of the problem, its scope and limitations, is to prepare a detailed outline of the present study. The study is presented in seven chapters with the following lines of approach.

**CHAPTER I: EXAMINATION REFORM.**

1.1 Introduction.
1.2 The Development of Examination System - Historical Perspective.
1.3 The Growth of the Examination System in India.
1.4 Major Dimensions of the Study.
1.5 Components.
1.6 Components of Internal Assessment.
1.7 Components of Question Bank.
1.8 Examination Reform—Recent Developments.
1.9 Conclusion.

CHAPTER II: PROBLEM AND PROCEDURE.
2.1 Introduction.
2.2 Definition of the Problem.
2.3 The Objectives of the Present Study.
2.4 Hypothesis.
2.5 The Scope and Limitations of the Study.
2.6 The Sample.
2.7 Procedure.
2.8 The Scheme of Chapters.
2.9 Conclusion.

CHAPTER III: REVIEW OF RELATED LITERATURE.
3.1 Introduction.
3.2 Relevant Researches—India.
3.3 Relevant Researches—Abroad.
3.4 Conclusion.

CHAPTER IV: CONSTRUCTION OF THE TOOL.
4.1 Introduction.
4.2 Present Plan of Work.
4.3 Collection of the Items.
4.4 Review of the Items.
4.5 Try-out of the Questionnaire.
4.6 Conclusion.

CHAPTER V: FACTOR ANALYSIS-VARIMAX FACTORS.
5.1 Introduction.
5.2 The Reliability of the Present Questionnaire.
5.3 Factor Analysis and Rotated Varimax Factors.
5.4 Conclusion.

CHAPTER VI: PERCEPTIONS OF THE SCHOOL TEACHING COMMUNITY AND CERTAIN INDEPENDENT VARIABLES.
6.1 Introduction.
6.2 Examination Reform-Comparative Studies.
6.3 General Findings.
6.4 Conclusion.

CHAPTER VII: REVIEW, MAJOR FINDINGS, RECOMMENDATIONS AND SUGGESTIONS.
7.1 Review.
7.2 Major Findings.
7.3 RECOMMENDATIONS.
7.4 SUGGESTIONS FOR FURTHER STUDY
7.5 Conclusion.
2.9 CONCLUSION

The problem and procedure adopted in this investigation have been explained in this chapter in detail. The statement of the research problem together with the definitions of the terms used, hypothesis and the scope of the investigation have been described. An analysis of the sample in terms of tabular statements and the methodology adopted for evolving the research tool have been stated in elaborate detail. The final part of the chapter presents the scheme of chapters followed in this report.
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