

CHAPTER VIIEVALUATION OF THE HIGHER SECONDARY TEACHER
EDUCATION PROGRAMME

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This chapter deals with, as mentioned in the sixth chapter, the validation of the higher secondary teacher education programme that has been evolved.

7.1 The purpose of validation

In order to realize the objective No.5, (please refer Chapter I, Page 31), the investigator decided to collect the reactions of experts in education about the higher secondary teacher education programme in respect of its adequacy and workability. The investigator could not validate the programme experimentally due to lack of resources and time.

7.2 Sample

A list of all the professors in education in India was prepared. Giving representation to each state, forty experts were selected.

7.3 Tool for the study

The investigator prepared a 'Questionnaire for experts in education' covering all the aspects of the higher secondary teacher education programme.

7.3.1 Structure of the questionnaire for experts in education

The investigator prepared all open ended questions to provide maximum freedom to respondents to express their opinions freely. In the covering letter, the investigator had explained the purpose of investigation and requested the respondents to examine the model for its adequacy and workability.

The following are the major aspects covered in the questionnaire.

<u>Aspect covered</u>	<u>Item numbers</u>
Objectives of the programme	1, 2
Balance between theory and Practice	3
Structure of the programme	4
Duration of the programme	5a, 5b, 6
Changes needed in the programme	7
Modification needed in the In-service Component	8
Suggestions/Observations/Comment	9

The questionnaire has been presented in Appendix VII A.

Further, the investigator met a few professors in the sample and discussed various issues concerning the model and changes needed in the programme to make it better suited in terms of workability.

7.4 Data collection

The higher secondary teacher education programme along with the questionnaire for experts in education was mailed to all the forty experts in the sample along with a letter requesting them to examine the model for its adequacy and workability and fill the questionnaire. The investigator could receive response from nineteen experts after sending two reminders and personally meeting a few of them. The list of experts who have responded has been presented in Appendix VII B.

7.5 Data analysis

Considering the nature of responses obtained by the respondents, the investigator decided to analyse the data qualitatively. The data obtained was pooled and studied for any pattern. Further, the investigator decided that data should be analysed itemwise to provide a better focus of the various issues. In the following presentation of the analysis of the responses, the investigator has followed itemwise analysis.

7.5.1 Objectives of Higher Secondary Teacher Education Programme

Majority of the experts have agreed with the objectives of the programme (89%). However, a few experts seem to think that there is some modification needed in the objectives of the programme (11%). Majority of the experts have opined that they are comprehensive (item 1).

One of the experts feels that the objectives should be organized as general and specific. A few experts have emphasised the value objectives. Another expert has opined that the objective number 12 (i.e., provide a curricular experience which gives unity to pre-service and in-service education. Please refer Chapter VI, Page No. 211) is redundant. The investigator agrees that the objective No.12, is redundant and it could be omitted in the final form of the programme (item 2). As majority of the experts have approved the list of objectives provided, all the objectives of the programme can be retained except the objective number 12.

7.5.2 Balance between the theory and practical aspects of the programme.

Majority of the experts in the study have opined that there is a balance between theory and practical aspects of the programme (95%). The experts have emphasized that the higher secondary components have to be more focussed while running the programme (item 3). A few experts have commented that weightage to different courses have not been specified and they have suggested that the theory and practice should be in the ratio 50:50. Some experts think that the ratio between theory and practice should be 60:40. It could be observed here that both the suggestions are viable and any one ratio can be accepted. Many institutions have worked out their programme in this ratio. One expert thinks that the theory is a bit overloaded. Another thinks that the proportion of practicals should be increased. One of the experts has suggested that the theory courses which do not easily lend themselves for working out practicals, may be linked with assignments involving library work. One of the experts has suggested that 'literature' should be included in course 6 i.e. Method of Teaching Languages (please refer Chapter VI, Page No. 311-312).

Observations : The theory and practical work are designed to give an integrated view. The weightage for each course has not been worked out, because the investigator thinks that it could be worked out by the individual institution while running the programme. Further, the programme provides more flexibility for further modification according to the local needs. The investigator also thinks that 'literature' as a unit could be included in Course 6 i.e., Method of Teaching Languages. In this programme,

efforts have been made to focus on the higher secondary components. However, the teacher education institutions have to think of more specific strategies suitable to their needs, in their context, to focus on the higher secondary teacher education Components (item 3).

7.5.3 The structure of components of the programme.

Majority of the experts in the study agrees with the overall structure of the components. However, a few experts have opined that content and methodology should be dealt together as content-cum-methodology. It may be observed here that the investigator has emphasized that the content course should be studied in relation to methodology course. A few experts are of the opinion that course 6 (i.e., Method of Teaching Science/Commerce/Humanities/Languages) and course 7 (i.e., Method of Teaching Special Subject: Chemistry/Physics/Mathematics/History/Economics/Accountancy) should be combined. The purpose of providing two separate courses was to provide basic background in the field in course 6 and to provide special methodology of the specific discipline in course 7. However, the individual teacher education institution can combine both the courses to shorten the duration. Some experts are of the opinion that 'project work' and 'Special field' should be made optional. Some experts think that special fields should be deleted. The investigator is of the opinion that only one special field may be offered but adequate choices of special fields should be provided. The investigator has suggested for offering only one special field for it would be more feasible. Moreover, in the regular B.Ed. course also in all the universities only one special field is offered. (Please refer Chapter V, table 5.1). In case, the teacher education institution feels

that the courses are heavy and can not be covered within two years duration, the 'special field' and 'project work' can be made optional to students. One expert is of the view that course 2 (i.e., Psychology of Adolescent Learners) should be named 'Educational Psychology'. Some experts have recommended that course 6 (i.e., Method of Teaching Science/Commerce/Social Sciences/Mathematics) may be deleted. The individual teacher education institution, considering the resources, time and other factors may forego the course 6 (i.e., Method of Teaching Science/Commerce/Social Sciences/Mathematics/Languages). The course 7 (i.e., Method of Teaching Special Subject Chemistry/Physics/Biological Science/History/Mathematics/Economics/Accountancy etc.) and course 8 (i.e., Content subjects) can be integrated and for this purpose, experts in content as well as methodology have to deliberate and design the course elements in each discipline (item 4).

7.5.4 Duration of the programme

Majority of the experts are of the opinion that the duration of the programme should be two years (item 5a). Some experts think that two years' duration is desirable, but due to social pressures and considering the fact that the entry qualification is post-graduation, one year duration will be more feasible (item 5b). Some experts have opined that the programme may be of six semesters' duration (item 6).

Some experts are of the opinion that one semester should be devoted to a broad based practice teaching e.g. observation of school plant, observation of lesson, adolescent behaviour observation, preparation of instructional aids, subject teaching in isolation, supervised teaching, etc. and atleast two months of internship, wherein the trainee works as a regular teacher of the school,

performing all the curricular, co-curricular and organisational activities. Although, this suggestion seems to be very appealing, to implement this in the present programme may not be feasible. Further, the practice teaching schools have to co-operate in this endeavour. Many schools may not agree to try this innovation.

7.5.5 The changes needed in the programme for implementation.

Experts have made suggestions with regard to various aspects for the effective implementation of the programme. In the following presentation each aspect is taken separately to give focus to the issue (item 7).

7.5.5.1 Organisational requirements

A few experts have suggested that a teachers' university affiliating all teachers' colleges (secondary and higher secondary) should be established in each state. Another suggestion has been to establish a comprehensive college for B.Ed. and M.Ed. (secondary and higher secondary) in each state.

Alternative model suggested has been to establish a three years M.A. (Education) degree wherein two years regular M.A. course with an inbuilt pre-professional course in education or three semesters theory course with one semester internship.

The teacher educator's have to be oriented before starting such a programme. It should be observed that the teacher educators have atleast a master's degree in the relevant subject and experience in teaching higher secondary classes.

Handbooks should be prepared for the teacher educators so that they can focus their teaching on the objectives and practical work. These handbooks have to be developed by a Central University or an autonomous organisation through drawing experts from the entire country.

Another significant suggestion made by a few experts with regard to the organisational structure is that a separate department has to be created under the direct charge of the vice-chancellor and the department is maintained by a co-ordinator, who acts as a liaison officer to bring together resources - in terms of personnel and materials from department of education and other departments concerning basic disciplines such as Physics, Chemistry, History, Economics, Commerce etc. The structure can be diagrammatically represented as follows: (Fig.7.1).

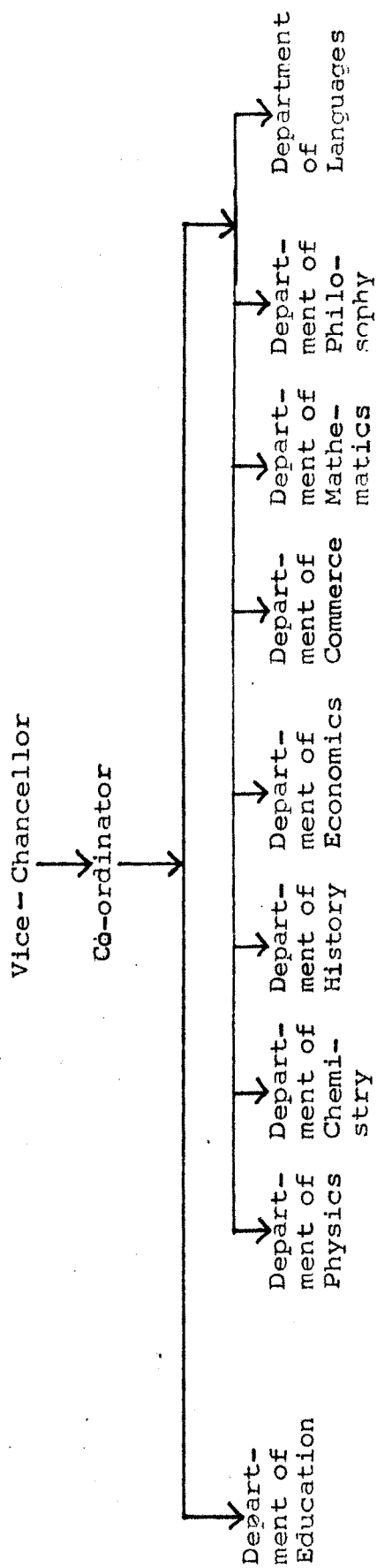
Observations : The suggestions made by experts are significant and they need to be deliberated upon considering the institutional structure, resources, and regional training needs potential.

7.5.5.2 Curricular aspects

Many significant suggestions have been made with regard to the changes in the curricular aspects of the programme.

- The two year course consisting of
 - (a) Philosophical, Psychological, Sociological, Historical and Pedagogical Foundations.
 - (b) Content-cum-methodology
 - (c) Practical work

Figure 7.1 : A SUGGESTED ORGANIZATIONAL
STRUCTURE



- (d) Internship followed by updating content through periodic in-service education should be introduced at the same time throughout the country, as a requirement for teaching at the higher secondary stage.
- The course 9 i.e., Special fields may be either made optional or deleted.
 - The courses 6, 7 and 8 may be integrated only one subject should be studied at an advanced level and a second one at a lower level.
 - The practical work suggested in relation to both foundation and special courses has to be reduced substantially to make it feasible.
 - The programme may, however, include some socially useful activities such as non-formal education/ adult education/continuing education in which the student teacher gains experience in working with people to conscientize them, thus helping to bring about the desired social transformation. This experience, in turn, would be of immense use in organising such campaigns with the help of his students in higher secondary schools.
 - Rich content courses oriented towards teaching +2 classes should be developed.
 - The courses 6 and 7 can be combined.
 - The number of foundation courses may be reduced.
 - The course 8 may be given in in-service programmes under enrichment and upgrading programmes due to the constraints of time and personnel in teacher education institutions.
 - Majority of the experts are of the opinion that the evolved programme has to be run in a teacher education institution to see the effectiveness of the programme.

7.5.5.3 Evaluation aspects

The experts are of the opinion that the number of hours for each unit have to be worked out. Criteria have to be evolved for evaluating practical activities.

It may be observed that the investigator has not worked out the hours for each unit, for the individual teacher education institution may like to change the units or modify slightly and flexibility will be there to fix hours of instruction depending on the availability of resources. As diverse activities have been included in the practical activities, it is difficult to evolve a uniform criteria. Therefore, the teacher education institution has to evolve the criteria for evaluation suitable to its context (item 7).

7.5.6 Modifications needed in in-service component:

Majority of the experts in the study are of the opinion that organizing inservice programmes should be accepted as a normal function by each teacher training college.

A few experts have opined that summer institutes and refresher courses should be organized regularly. The incentives for teachers also should be made more attractive.

There was also a suggestion for developing school complexes to ensure better interaction between colleges and school.

A few experts are of the opinion that inservice programmes should emphasize creativity and promote social awareness.

A few experts have remarked that the first step to improve inservice education would be to provide more liberal finance and qualified staff and other material resources.

Many experts are of the opinion that a regular one month programme should be organized, in addition to the programmes suggested in the model, to all the higher secondary teachers once in every five years. Another expert opines that credit courses through in-service programmes should be introduced.

One expert has attributed all the failures of in-service programmes to the lack of follow-up activities. It should be noted that follow-up activities are the activities urgently needed in our system of organisation of in-service programmes.

A few experts have recommended to give more emphasis to the following types of programmes:

- Training of handling and operating media equipments and development of media materials.
- Remedial programmes.
- Programmes for special needs
- Role of distance education in inservice training.

One of the experts is of the opinion that evaluation procedures for inservice training have to be worked out in further details. Another expert has emphasized the need for continuous feedback and recommended that there is a need to expose the higher secondary teachers to techniques of teaching used in different disciplines so that an inter disciplinary awareness is created (item 8).

Observations : The categorisation of the inservice programmes under five heads has been done for better presentation. However, some new programmes can be designed by the individual teacher education institution to fulfil the local needs. There is no second opinion about the need for more resources for organizing inservice programmes. The idea of exposing the higher secondary teachers to the techniques of teaching used in different disciplines to provide an interdisciplinary perspective to them is worthy of giving a trial. Certain opinions forwarded are acceptable to all the academics such as to provide continuous follow-up activities, and giving regular long term inservice programmes. However, in the field conditions, over the years these activities have not been materialised. For this purpose, the experts and teacher educators have to create an environment conducive to the implementation of the activities. The investigator is also of the opinion, that more refresher courses and summer institutes have to be organized. It is pertinent to state here that more importance should be given to content enrichment courses. The areas and programmes which the experts have suggested for giving more emphasis are to be taken seriously while implementing the inservice programmes. It may be observed that evaluation guidelines provided are broad and need to be further made specific in connection with the specific programmes in the context of the institution where the programmes are to be implemented.

7.5.7 Suggestions/Observations/Comments of experts for further improvement of the programme.

The suggestions, observations and comments of the experts - both comprehensive and specific have been presented here. The specific changes or modifications to be made in

the model are shown in a tabular form on page 40-415 . It may be observed here that these modifications suggested by the experts have been examined critically and accepted.

Some of the suggestions, observations or comments may seem to be repetitive but they have been highlighted again to emphasize their importance for the programme.

The suggestions given here should be read with the model as well as the materials presented in the previous sections of this chapter.

Some of the important suggestions have been the following:

1. The number of foundation courses may be reduced.
2. Course 9 : Special fields may be provided as a short inservice course.
3. Emphasize self study, library reading, group discussion, assignment etc.
4. More stress should be laid on remedial work in content.
5. Develop skills such as conducting a group discussion, improving and guiding self study, a paper reading session, conducting seminar, workshop, symposium etc.
6. Include activities such as developing auto-instructional material, programming, P.S.I., preparing inventory of practical materials.
7. Research project may not be feasible.
8. The content has to be emphasized.
9. More emphasis should be given to late adolescence.

10. The number of periods and time should be indicated in the course structure.
11. Practical work on construction of objective based test items is needed.
12. The number of practicals for each course has to be worked out.

Experts have suggested some specific modifications to be made in the model. The investigator has pooled all the suggestions and examined those modifications. The investigator has accepted the following modifications to be made in the model.

The specific changes or modifications to be made in the model are indicated by underlining the particular Phrase, paragraph or unit, and additions to be made are also indicated with full reference to the page number, line etc.

Page Number	Paragraph Number	Course	Unit	Deletion	Addition
288	Para 3 Point No.3				In order to effectively develop the required skills the higher secondary teachers have to be properly equipped with <u>specific-to-the-stage</u> cognitive, affective and psychomotor skills.
289	Para 1 Point No.4				To function effectively as a teacher at the higher secondary level, the teacher needs to understand the bio-psycho-social needs of the adolescent <u>and the post adolescent</u> and the problems arising out of their nonfulfilment.

Page Number	Paragraph Number	Course	Unit	Deletion	Addition
289	Para 2 point No.5 Last Line				Especially, the higher secondary teacher has to his professional growth as the demands at this stage have been increasing for the qualitative improvement of standards of education, because this is the preparatory stage for the university education and also is <u>a terminal stage for a large number of students and it is a 'Bridge' stage between secondary and college education.</u>
298	Para 5 Line 1	Course 2 Psychology of the Adolescent Learner		Child	The purpose of this course is to equip the prospective teachers with those psychological skills and insights which are essential for the successful guidance of the growth, learning and adjustment of the <u>adolescent and post adolescent.</u>
355		Course 1 Philosophical and sociological perspectives in Education and the Emerging Society (Please refer Section 6.6.1)	Unit 2	'according to Education Commission 1964-66'	Education, its meaning and purposes <u>as defined in the National policy on Education 1986 and programme of Action</u>

Page Number	Para-graph Number	Course	Unit	Deletion	Addition
355		Course 1 Philoso- phical and Sociological perspectives in Education and the Emerging Society (Please refer Section 6.6.1)	Unit 4	'New pattern of educa- tion (1)+2+3) 'Undiffe- rentiated general education delete the word 'Need' under the New Educa- tion Policy 1986.	<u>National system of Education</u> , Need, objectives and main features, first ten years of schooling. The New Education Policy (1986) objectives and main features
355		Course 1	Unit 5	' <u>Wastage and Stagnation</u> '	
356		Course 1	Unit 6	The word ' <u>emotional</u> ' in national and emotional integration, population explosion, Educational Wastage and Stagnation	7. <u>Population education</u> 8. <u>Health and Physical education</u> 11. <u>Art and Aesthetic education</u> .
356- 357		Course 1 Practical work		Activities 1, 2, 3, 4 may be reexamined or deleted Activities <u>6</u> and <u>8</u> can be deleted.	Activity 7 can be transferred to course 2 (please refer Section 6.6.2)
358		Course 2 Psychology of the Adolescent Learner	Unit 1	The title may be renamed as educational psychology ' <u>Introduction to the Psychology of the learner</u> ' ' <u>Contributions of Psychological researches</u> '	<u>Contributions of educational Psychology to teaching practice</u>

Page Number	Para-graph Number	Course	Unit	Deletion	Addition
358			Unit 2	delete the word 'Human'	
359			Unit 5	delete a. <u>Learner characteristics</u>	Factors influencing <u>classroom</u> learning include the following elements. Cognitive affective, organizational factors in learning and memory.
359		Course 2	Unit 5	b. <u>Characteristics of learning material</u>	<u>Types of learning</u> i) <u>verbal</u> , ii) <u>skill</u> , iii) <u>attitudes/values</u> <u>learning of concepts</u> , <u>principles</u> , <u>problem solving</u> , <u>Role of reward and punishment on learning</u> , <u>self-learning</u>
360		Course 2		delete units 3, 4, 5 & 6	include the following topics: 3. <u>Learning process: Information processing, development approach to learning, perception and learning, observational learning.</u> 4. <u>Long term retention and transfer</u> 5. <u>Teacher behaviour and classroom learning. The concept of motivation and its relation to learning, self-concept and goal, goal setting, behaviour in learning. Intrinsic and extrinsic motivation role of incentives in learning.</u>

Page Number	Para-graph Number	Course	Unit	Deletion	Addition
361		Course 2	Unit 7	delete the following elements: <u>d.Slow and gifted learners.</u> <u>Role of the teachers in satisfying their specific needs.</u>	include the following elements: <u>Teachers-children with special needs (Physically handi-capped, Mentally retarded, gifted)</u> <u>Unit 8: Child centred approaches to teaching and learning-centrality of learner.</u>
361		Course 2 Practical work		delete activity No.1	
362		Course 3 Higher Secondary School Organisation and Management (Section 6.6.3)	Unit 2		Development of higher <u>Secondary</u> education.
363		--do--		Unit 7 <u>Educational finance may be deleted</u>	
363		--do--	Unit 8	' <u>Vocationalisation of higher secondary education equalisation of educational opportunities diversification courses and specialisation</u> ' are reported in course 1 also.Thus these topics may be deleted.	

Page Number	Para-graph Number	Course	Unit	Deletion	Addition
364- 365		Course 3 Practical activities (Please refer Section 6.6.3)		In practical work activities 5,6,8,9, 11 and 12 may not be feasible.	

A few more suggestions :

- * Practical activities may be grouped not paperwise but separately as this would not be feasible within the time.
- * In special fields many of the papers are repeated such as

4,5,6,7,9, 11	Paper I
8,12	Paper II
13	Paper IV

Therefore, it may be either deleted while reorganising the programme or restructured as certain projects: S.U.P.W., curriculum Development etc.

The comprehensive suggestion with regard to the structure is as follows:

1. Foundation courses 1,2,3,4 and 5 can be retained.
2. The courses 6 and 7 have to be integrated as content-cum-methods.
3. Course 8 should consist of theory papers constituting the core paper. The fundamentals of teaching involving ideas of special papers should be included.

4. Course 9 should consist of psychology practicals
 5. Course 10 practice teaching (Internship) two subjects - one at a higher level and another lower level.
 6. Course 11 S.U.P.W., Physical and Health Education (practical)
 7. Course 12 projects (relating to paper 1, 3).
 8. Course 13 projects (relating to paper 4,5)
- In order to be more realistic the number of practicals have to be limited to five or six.

Observations on the suggestions for improvement:

The suggestions provided by the experts have been highly valuable. As indicated in the earlier pages, specific modifications have been made in the model to suit the needs of the higher secondary teachers. The suggestion concerning the number of practical activities for each paper was examined and the investigator agrees with the experts that, to be realistic, the total number of practical activities should be limited to five or six. Some of the courses in 'Special fields' could be given as projects for example, S.U.P.W. The suggestion concerning combining methods course and content course needs to be given a second thought. For there is an inherent problem of losing the perspective. The trainee needs to be given methods course with a background of content subject i.e., the student teacher has to see the methodology in the frame of the structure of the content. For this purpose, the methods course needs to be separately provided. Further, the separate content course, dealing with the fundamentals of the particular content area with respect to the methodology emerging out of it gives a better background for the student teacher in understanding the teaching of his subject area. The specific as well as comprehensive suggestions provided by the experts, have been taken up for detailed discussion in the Chapter VIII.