CHAPTER IV

ANALYSIS OF THE DATA AND ITS INTERPRETATION.

Introduction

The present chapter is devoted to the description and analysis of the data. The tools, utilised for collecting the data have been already described in chapter third. These tools are: (i) two questionnaires, (ii) attitude scale and (iii) interview schedule, for the teachers of different universities and colleges who had already attended inservice course; the regular students of M.C.T. and M.H.Ed. degree course, the untrained group and also the organizers. Before analysing the data for the present study, it was thought fit to describe the nature of the distribution of the data with regard to the variables which were - preservice group, inservice group and the group of teachers who had not undergone any orientation programme. The other variables which was also taken into consideration were, sex and experience.

For convenience sake, the following abbreviations
have been used in the text of the thesis:

  (i) The group which had undergone preservice
    oreintation course will be referred to as
    P.Group

  (ii) The group which had undergone an inservice
    orientation course will be referred to as
    I.Group.

  (iii) The group which had not attended any such
    programme will be referred to as U.Group.

Keeping in mind the above mentioned variables and
the objectives of the study, the questionnaires have been
analysed question-wise, and the analysis have been presented
in separate tables. The data has been classified under three
parts: (i) P.Group, (ii) I.Group, (iii) U.Group. Such
analysis was done for the part (A) of the questionnaire only.
The part (B) was not meant for the U.Group.

The responses have been calculated in terms of
percentages and in a few cases, some ranks have also been
given (as mentioned in chapter third).

In the question no. 9 of part (A) of the questionnaire,
scores were given on a 'three point scale' in order to know the
opinion about the objectives of the orientation programme. The
analysis of this question has been placed in three separate
tables. The 't' technique of significance of mean different and
the correlation (ρ) have been used for comparing the sub-
groups of different variables.

The attitude scale has been analysed on five point scale, where scores 5, 4, 3, 2, 1 have been given for strongly agree, agree, undecided, disagree and strongly disagree respectively for positive statements, and the scores 1, 2, 3, 4, 5 in reverse order for negative items.

While collecting data from the I.Group at the M.S. University of Baroda, the attitude scale was administered on the basis of a pre-test , post-test method. This technique was adopted in the case of only two sessions of such courses. It was analysed by applying the 't' test technique where the mean scores are correlated.

Further 't' technique has been applied for independent groups of small sample i.e. to uncorrelated groups on the same attitude scale, to compare the attitude towards the orientation programme for teachers. The data was classified into sub-groups on the basis of described variables, and subsequent tables are given at the appropriate places.

The rating questionnaire of syllabus has been analysed through percentage only. The interview schedule has been discussed descriptively.

PART-A

Analysis of the Data

      (a) For Pre-service Group (P.Group)

      (b) For In-service Group (I.Group)

      (c) For Untrained Group   (U.Group)

The description of the distributions have been presented in terms of percentages. In the questionnaire, the Part-A is meant for all teachers irrespective of their having attended any orientation programme or not.

Table 4.1: Respondents of the Three Groups

P. Group		N_1=82	I. Group		N_2=240	U. Group		N_3=190
Degree		Total	Diploma/Certificate		Total	–		Total
Male 50	Female 32		Male 172	Female 68		Male 150	Female 40	
61%	39%	100%	72%	28%	100%	79%	21%	100%
Total 16%			47%			37%		

Table 4.1 reveals that the P.Group was awarded degree certificate , whereas I.Group was awarded diplomas or certificates.

The sample consisted of 512 teachers/teacher aspirates. Of these 512, 322 had attended either preservice or inservice education programme. The remaining i.e. 190 had not attended any course.

Agencies

The agencies which organized the orientation programmes are shown in the Table 4.2.

Table 4.2: The Agencies Which Organized the Orientation Programme

	Agencies	(Figures are in Percentage)	
		P.Group	I.Group
1	University Department of Education	100	48
2	Training Colleges for Teachers	-	19
3	U.G.C. Conducted Orientation Programme		33
4	N.C.E.R.T. Programme	-	-
5	Concerned Faculty Conducted Programme	-	-
7	Concerned Department Conducted Programme	-	-

The analysis shows that there are two agencies which have been responsible to impart the orientation programme. They are: (a) University Departments of Education, (b) U.G.C. conducted Orientation Programmes. The University Grants Commission provides grants for the departments of education in different universities to conduct such courses. The U.G.C. has been providing grants to University Departments of Education or College of Education to conduct Summer Courses or Short Term Institute for college teachers on Methods of Teaching and Evaluation almost over a decade. In order to encourage thinking on university teaching methods and evaluation, the U.G.C. grants funds to hold Seminars or Workshops for University Departments of Education or College of Education.

Need of the Programmes

Table 4.3(a): The Opinion of Respondents about the
Helpfulness of the Orientation Programme

Programmes	Yes %	No %
P.Group	100	-
I.Group	76	2
U.Group	80	20

The above analysis reveals that the opinion of the
respondents is in favour of the orientation programme in teaching
because they consider the course is helpful to the university/
college teachers in their professional work. The analysis gives
a clear picture that both trained (through preservice or
inservice education) and untrained groups have realized the
importance of these programmes. The P.Group is most favourable
towards the programme which they have undergone and 76 percent
the I.Group have also realized the utility of such inservice
orientation programmes. One important feature is that 80 percent
of the untrained feel the necessity of such an orientation
programme.

The responses of the table 4.3(b) are based on the
positive responses represented in the table 4.3(a), but the
percentages have been calculated out of the total respondents.

Table 4.3(b):   Different Aspects of the Orientation
Programme Showing the Utility

	Aspects	P. Group	I. Group	Total	Expectations of U.Group
		%	%	%	%
1	Confidence in teaching	40	23	27	22
2	Systematic in teaching	39	40	40	42
3	Techniques of teaching	43	49	47	35
4	Effective teaching	46	44	44	39
5	Knowledge of educational Psychology	32	27	28	31
6	Knowledge of philosophy of Edu.	18	9	11	15
7	Knowledge of sociology of Edu.	17	14	15	20
8	Knowledge of educational Administration	17	8	10	13
9	Helpful in evaluation	–	17	13	24
10	Better knowledge of motivational aspect	17	21	20	29
11	Experience of teaching	18	1	5	–
12	Aims and objectives of education	11	2	4	4
13	Understanding the behaviour of the students.	35	42	40	28
14	Trained teachers better than untrained	12	3	5	–
15	Guidance for setting examination papers	10	9	9	12
16	It establishes positive teacher-pupil relationship	22	5	10	17
17	Helps organizing co-curricular activity	2	1	1	–
18	To prepare better citizens	2	1	1	–

According to the table 4.3(b) the respondents have given reasons in support of the orientation programme on an open end type of question.

It is obvious from the table that between 40 and 49 percentage of respondents of preservice group and inservice group supported that they have learned different techniques of teaching, they have become aware of systematic teaching and developed skills to make teaching effective. The untrained group has also supported many of the items. The untrained group expects that during the orientation courses the participants would benefit on many aspects of teaching and evaluation.

The regular participants of preservice and inservice courses have responded on the basis of their experiences of the orientation programmes. The second preference is given to the psychology of education. There are other preferences as well. The college/university teachers in general feel that such courses give them required confidence to teach effectively. The knowledge of psychology is also important for understanding the class, the students, their behaviour and their problems.

Table 4.3(c): The Reasons Given Against the Orientation Programme

Reasons	P.Group	I.Group	U.Group
1.Programmes are only a waste of time and money.	–	–	10%
2.Orientation is not necessary for improvement in teaching ability.	–	–	7%
3.Teaching depends on the mastery of the subject.	–	–	5%
4.Teaching is a natural art which cannot be taught.	–	–	6%
5.Teachers are not serious about training	–	–	7%
6.No utility of training	–	–	5%

The respondents, who were not in favour of the orientation programme, were asked to give reasons for the same through un-structured question. The reasons are tabulated here in table 4.3(c). Out of 190 untrained teachers, only 10 percent and less than that have voiced their feelings against the course. Only six arguments were given against the usefulness of the programme, and the percentage for each is less than 10.

It is necessary to mention here that 100 percent of the preservice group and 76 percent inservice group were totally in favour of the programme. And hence their opinions are not reflected in table 4.3(c). The remaining 24 percent of the I.Group who were w either not in favour or did not show any opinion (table 4.3(a)) did not give reason against the orientation programme.

Objectives of Orientation Programmes

The objectives of the orientation course are important. These objectives give direction and purpose. Initially, a set of objectives or purposes of such orientation courses were compiled from the different syllabi of the orientation courses conducted by different university departments of education. The respondents were asked to show their agreement or disagreement about these goals or purposes of the orientation course. Their responses are tabulated under table 4.4(a).

The data with regard to the opinions of the participants towards the objectives of the programme is being analysed. Table 4.4(a) shows that items 2, 3 and 14 have been given top rank by

both the groups: P.Group and I.Group. The respondents support that improvement in teaching and evaluation are the important purposes of such courses, whereas the untrained group awards top ranks to the items 14, 3 and 2. The lowest ranks were given to item no.5 and 11 by P.Group, I.Group and U.Group also. These indicate that the purpose of such courses is not to provide understanding of life value and understanding the community life. Other objectives were rated of average importance by all the three groups viz. P.Group, I.Group and U.Group.

The main objectives of the orientation course according to the respondents are :

1. to make teaching systematic and effective,

2. to develop awareness of new techniques of evaluation,

3. to enable adopting of suitable and new techniques of teaching,

4. to give proper guidance to the students in teaching-learning,

5. to develop self confidence in teaching.

Other objectives have also been supported by the respondents and their ranks are shown in the table 4.4(a).

The coefficient of correlation ρ has been calculated among the groups, which is significant. This significance of ρ indicates that in most of the rating cases one to one correspondence holds throughout the entire list. Whatever ranks were given by one group the same ranks were also given by another group in most of the cases.

Table 4.4(a): The Opinion of Respondents Towards Objectives of the Orientation Programme

Objectives	P.Group Score	Rank	I.Group Score	Rank	Total Score (P+I)	Total Rank	U.Group Score	Rank	Rank
1. Self confidence in teaching	243	2	632	10	875	8	438	11	
2. Systematic and effective teaching	243	2	697	2	940	1	476	3	
3. Adopting suitable and new techniques of teaching	243	2	685	3.5	928	3	482	2	
4. Understanding the educational goals	224	9	627	11	851	12	425	14	
5. Understanding the value of life	148	16	513	16	661	16	352	16	
6. Understanding the conditions under which learning takes place	220	11	653	8	873	9	443	10	
7. Study of students' behaviour	238	5	619	12	857	10.5	435	12	
8. Better knowledge of administration in system of teaching	217	13	604	14	821	13	450	8	
9. Organization of co-curricular activity in university/college	198	14	608	13	806	14	448	9	
10. Establishment of rapport with students	218	12	639	9	857	10.5	429	13	

Continued Table 4.4(a)

Objectives	P.Group Score	P.Group Rank	I.Group Score	I.Group Rank	Total Score (P+I Groups)	Total Rank	U.Group Score	U.Group Rank
11. Understanding the community needs	171	15	545	15	716	15	382	15
12. Identification of problems of higher education and their remedies	231	8	674	5	905	5	470	5.5
13. Curriculum development in higher education	239	4	655	7	894	6	462	7
14. Awareness of new techniques of evaluation	237	6.5	699	1	936	2	486	1
15. Proper guidance to the students in teaching learning	237	6.5	685	3.5	922	4	472	4
16. Knowledge of motivational factors which motivate students to achieve excellence	223	10	666	6	889	7	470	5.5

(A) Correlation between P.Group and I.Group = .69

(B) Correlation between P.I.Groups and U.Group = .88

Table 4.4(b): Difference of Mean Scores of the Male and Female Participants About Objectives of the Programmes

Programmes	MALE				FEMALE				D $M_1 \sim M_2$	SE Comb.	CR	Significance Level
	Mean M_1	S.D.	SE	N	Mean M_2	S.D.	SE	N				
1. P.Group	41.40	12.37	1.75	50	45.63	3.2	.56	32	4.23	1.84	2.29	.05 Level
2. I.Group	42.44	6.75	.51	172	43.22	4.33	.52	68	.78	.72	1.08	Not sig.
3. U.Group	38.03	9.91	.81	150	37.00	10.79	1.71	40	1.03	1.89	.54	Not sig.

Table 4.4(c): Difference of Mean Scores of the Different Groups About Objectives of the Programme

Programmes	Mean	SD	SE	Difference Between Groups	D. Difference of Means	SE	CR	Level of Significance
1. P.Group	43.00	4.43	.49	Difference between P.Group and I.Group	.34	.63	.53	Not significant
2. I.Group	42.66	6.16	.39	Difference between P.Group and U.Group	5.18	1.88	2.76	Significant at .01 level
3. U.Group	37.8	10.11	.73	Difference between I.Group and U.Group	4.84	.82	5.90	Significant at .01 level

From the table 4.4(b), it is obvious that there is
a significant differente between male and female participants
belonging to the preservice group with regard to their opinion
about the objectives of the programme at .05 level; whereas no
significant difference was found among the male and female
participants in the case of the inservice group and untrained
group.

The data reveals that there is no significant difference
of opinion about the objectives between preservice and inservice
groups, whereas there is a significant difference of opinion
about objectives of orientation programme between preservice
group and untrained group at .01 level; there is also significant
diffepence between inservice group and untrained group at .01
level. It indicates that those respondents who had completed
their training or were under training, their opinion about
objectives of the programmes were found to be significantly
favourable when compared with the opinions held by the
untrained group.

Types of the Orientation Programmes

The following table 4.5(a) indicates the preferences
of orientation programme by the respondents at different stages
of their professional growth.

Table 4.5(a): The Preferences of Orientation Programme
by the Respondents at Different Stages of
Their Professional Growth

(Figures are in Percentages)

Groups	OPTIONS FOR ORIENTATION PROGRAMME		
	Option-I	Option-II	
	As P.Programme	As I. Programme	
	P.Prgoramme	During Probationary Period	During Inservice
1. P. Group	89	11	12
2. I.Group	32	45	68
3. U.Group	15	43	71
Total Percentage of All the Groups	35	39	60

There are two types of courses: (a) preservice and
(b) inservice programme, whereas the new entrants get their
initiation during probationary period as in M.S.University of
Baroda. It is in fact a part of the inservice programme. But to
get the opinion of the respondents of these groups, they have
been put in a different category.

The table 4.5(a) shows that the two groups 2nd and 3rd
have shown their preferences for inservice education; whereas
the preservice group has shown its preference for preservice
education programme.

But when frequencies of all the three groups were added;
it was found that the overwhelming majority (60 percent) was in
the favour of inservice programme.

Table 4.5(b): Reasons Given by the Respondents Explaining Their Preferences Mentioned in Table 4.5(a)

(Figures are in Percentages)

Reasons	Preservice Group			Inservice Group			Untrained Group		
	Preservice Education Programme	Probationary Period	Inservice Education Programme	Preservice Education Programme	Probationary Period	Inservice Education Programme	Preservice Education Programme	Probationary Period	Inservice Education Programme
1. Lack of experience creates difficulties in teaching.	9	1	1	4	5	4	11	16	18
2. Problem of Finance	5	5	7	3	25	26	-	38	24
3. Need for learning techniques prior to taking up the job	45	5	1	5	35	35	5	13	13
4. Teaching Cannot be Successful Without Proper Planning	4	2	1	10	10	5	10	-	-
5. Need to learn efficient methods of teaching	48	2	1	9	30	29	47	45	71
6. Developes self confidence	30	1	-	5	19	21	19	20	10
7. Unemployment leads to preservice training	2	-	-	7	1	1	-	-	-
8. Need to understand student behaviour prior to taking up teaching	30	4	-	8	17	19	18	32	22
9. Preservice to be made a mandatory condition for job	24	-	-	6	-	-	16	-	-
10. Inservice helps skills to be acquired and applied without wasting time	-	-	-	3	16	15	-	-	2
11. Only experts would take up teaching profession	-	2	2	1	13	20	3	14	20
12. Training can be received even while earning.	-	-	-	-	7	-	-	-	-

According to the table 4.5(b), the respondents prefer the orientation programme for the following reasons on an open ended question.

All the groups feel that the knowledge of efficient methods of teaching is essential for the teachers. The percentage of the responses obtained in this respect reveals that all the three groups appreciate the need of an orientation programme whether it be preservice or inservice or even during the probationary period.

The respondents, who attended the preservice programme, stressed upon conducting preservice programmes. The reasons given by them are mentioned below:

1. There is a need to learn efficient methods of teaching.(48 percent)

2. Techniques involved in performing a job should be learnt in advance. (45 percent)

3. There is a need to plan the content for successful teaching. (44 percent).

4. It develops self confidence. (30 percent)

5. A teacher can face the class properly, if he knows the behaviour of the students. (30 percent)

6. Securing a job becomes relatively easier if a training has been taken. (24 percent)

7. Preservice training gives the experience of teaching, so that a newly appointed teacher faces less difficulty in teaching. (9 percent)

The remaining aspects have elicited less percentage of responses.

The respondents, who have attended the inservice programme during probationary period stressed upon either it should be conducted as inservice programme later on or during probationary period. The respondents revealed a more job oriented attitude towards the programme rather than an academic interest towards the same. Their arguments to prefer the training are as follows :

1. Techniques of teaching are necessary to be successful in the teaching profession. The training should be given just after the selection of the candidate i.e. during probationary period. (35 percent).

2. The knowledge of methods of teaching is very essential and to receive this knowledge (inservice or probationary period) g programmes should be conducted. (30 percent)

3. It does not incur financial pressures, if the programmes are inservice or during the probationary period. (25 percent)

Other reasons for the need of training are also given in the table, but their percentages are low.

The third group which consists of the untrained teachers stressed upon the pedagogical aspects of the training programme. The group felt that such programmes are necessary for increasing teaching competencies among the teachers. But the group was undecided regarding the time as to when the programme should be

conducted, meaning whether it should be preservice, inservice or during probationary period. The table shows that all the groups felt the need for training equally.

Duration of the Orientation Programmes

Table 4.6(a): The Duration of the Preservice
Education Programme

(Figures are in Percentage)

Programmes	DURATION		
	Full Time Course for One Year	Full Time Course for One Semester	Full Time Course for Less Than Six Months
1. P. Group	77	12	9
2. I. Group	25	10	16
3. U. Group	11	7	7
Total Percentage	28	9	12

The table 4.6(a) indicates that the respondents who had their education under full time one year course, advocated the duration of such courses as one year. Other group also suggested the same idea, but the percentage is less with respect to first one.

The percentage of all the groups together shows the preference of full time preservice course for a period of one academic year.

Table 4.6(b):   The Duration of the Inservice
                Education Programme

(Figures are in Percentage)

Programmes	Full Time Course for One Semester	Part Time Course for Two Years During Vacation	Evening Courses for One Semester
	D U R A T I O N		
1 P.Group	20	26	17
2 I.Group	· 30	23	44
3 U.Group	17	20	49
Total Percentage	23	22	41

The data as shown in the table 4.6(b) reveals that
the evening courses are preferred by inservice group and the
untrained group, whereas vacation courses spread over a
period of two years was preferred by the respondents who
had attended the preservice course.

Further analysis reveals that the evening courses
enjoy the first rank (in total percentage) preference, whereas
the full time one semester course enjoyed the 2nd rank
(23 percent)of preference.

Table 4.7: Opinions of the Groups Regarding Satisfaction
of Existing Examination System

	Programmes	Yes %	No %
1	Preservice Group	27	73
2	Inservice Group	35	62
3	Untrained group	17	76

The respondents were asked whether the existing system
of examination in their subjects was satisfactory or not.

The analysis of the data in table 4.7, reveals that all
the groups are not satisfied with the existing system of
examination in their subjects; whereas only a small number in
the different groups are satisfied with pattern.

Table 4.8: The Need of Orientation in the
Evaluation Techniques

	Programmes	Yes %	No %
1	Preservice Group	91	9
2	Inservice Group	92	8
3	Untrained Group	79	16

The question was aimed to find out whether the
respondents feel any need for an orientation programme in
evaluation system. It is obvious from the data that all the
three groups highly appreciated the role of orientation,
in the improvement of the evaluation system. The percentages
79, 91 and 92 clearly show the need for dealing evaluation
aspect of teaching-learning process under the orientation
programme.

Table 4.9(a): The Opinion of Different Groups
About the Influence of Examination System
on Today's Teaching-Learning Process

(Figures are in Percentages)

	Programmes	Good	Neutral	Bad
1	Preservice Group	23	4	17
2	Inservice Group	47	16	34
3	Untrained Group	49	21	21

Analysing the data (table 4.9(a)), it was found that
less than 50 percent of respondents of all the groups felt
that the examination system made a good impact on the teaching
learning process. Both the inservice and untrained group feel
that examination system has good influence on teaching. But
other respondents of the same groups feel that the existing
system of examinationkxa has bad influence on the teaching;
and the 16 and 21 percent members of the same group are also
neutral with regard to their opinion on the impact of the
examination on teaching. If both these opinions (bad and
neutral), are taken into consideration then it is obvious that
both the groups are almost equally divided on the subject. The
preservice group has nothing much to contribute as they do not
have the experience of teaching and evaluation as regular
teachers.

The table 4.9(b) represents the responses which
answered the querry whether the bad influences of the
examination system on teac_hing could be remedied.

Table 4.9(b): The Opinion of the Groups Regarding
the Possibility of Remedying of the
Present Evaluation System

	Programmes	Yes	No
		(Figures are in Percentages)	
1	Preservice Group	57	-
2	Inservice Group	47	-
3	Untrained Group	98	-

It was felt by all the groups that the existing system of examination could be remedied as evident from table 4.9(b). The remedial measures, which are suggested in the next table, will be helpful to improve the existing examination system.

Table 4.9(c): The Remedial Measures to be Adopted for
Improving Existing System of Examination

Remedial Measures	P R O G R A M M E S						Total Scores	Rank
	P.Group		I.Group		U.Group			
	Scores	Rank	Scores	Rank	Scores	Rank		
1.Internal Evaluation	42	II	196	II	197	II	435	II
2.External Evaluation	23	IV	80	V	82	V	185	V
3.By Introducing Conti- nuous Assessment	44	I	216	I	222	I	482	I
4.By Introducing Obje- ctive Type of Questions	18	V	108	IV	111	IV	237	IV
5.By Introducing Grade System	33	III	156	III	160	III	349	III
6.By Preparing Questions for Question Bank	6	VI	42	VI	40	VI	88	VI

1   Correlation between P.Group & I.Group (ρ) = .94

2   Correlation between P.Group and U.Group (ρ) = .94

3   Correlation between I.Group and U.Group (ρ) =1.00

4   Correlation between Trained Group & U.Group(ρ)=1.00

This table describes the ranks which were given by the respondents for the six different remedial measures suggested in the questionnaire. The scores 6, 5, 4, 3, 2 and 1 were alloted to the ranks I to VI respectively.

Moreover, the scores of all the groups were added and on the basis of these total scores, further ranking was done.

The table 4.9(c), further gives a clue as to the feelings of the respondents who desire for the improvement in the existing evaluation system. It is self evident that the respondents prefer the introduction of continuous assessment system in the evaluation set up as a first step, whether it be external or internal evaluation pattern that is being followed. The second rank has been assigned to internal assessment by all the groups. Grading system has been rated as the third rank by the respondents. There is a slight difference in the rating of the preservice group on the one hand and inservice group and the untrained group on the other, with regard to the fourth rank. While the preservice group rated external evaluation as the fourth rank, the inservice group and the untrained group rated the introducing the objective type of questions as the fourth. After adding the total scores, the fourth rank went to the objective type of questions. The external evaluation gained the fifth rank, which was diametrically opposite to the view expressed by the preservice group. Obviously, the sixth rank was unanimously allowed to the last item that is the preparation of questions for the question bank.

This table also indicates that the above aspects of the evaluation system should form the part of the orientation

programmes, because internal assessment, continuous assessment grade system, question bank are a few of the new comcepts which are being advocated not only by the respondents, but by the other educationists, experts, and also by the UGC. According to the table 4.9(c) also the respondents have felt the need for orientation in different aspects of evaluation.

The correlation is also significant which tells us about the corresponding ranks given by the different groups to corresponding items.

PART-B

Part-B contains the responses of the respondents who have undergone some sort of training. This part does not contain the opinions of the untrained group. This part of the analysis is concerned with the effectiveness of the programme.

Selection of Experts

Table 4.10(a) The Respondents who acted as Consultants in the Orientation Programmes

		Figures are in Percentages)	
	Programmes	Yes	No
1	Preservice Group	4	96
2	Inservice Group	10	90

Analysing the data in this regard, it was found that

96 percent respondents of preservice group and 90 percent respondent of inservice group did not act as consultants, whereas 4 percent and 10 percent respondents of preservice and inservice group respectively acted as consultants.

Table 4.10(b): The Policy About the Appointment of the Consultants in Orientation Programme

(Figures are in Percentages)

| | Options | Programmes | | | |
		P.Group	I.Group	Total	Rank
1	Concerned Faculty	15	28	~~26~~ 25	IV
2	Concerned Department	24	28	27	III
3	University Department of Education	~~33~~ 36	~~63~~ 60	~~62~~ 54	~~I~~ II
4	Experts from the Different Departments	55	63	62	I

Most of the members (table 4.10(b)) from both the groups gave first rank for inviting experts from the different departments. The selection of the experts from university departments of education was accepted as the second rank.

The basic question is as to who should act as the resource person or consultants for training the teachers of the colleges. This question arises because while the lecturers who seek orientation are experts in their own disciplines, they need guidance on content cum pedagogy.

It is evident from the table that the respondents felt that the experts from the different departments should act as

the consultants, because of their experience in these content areas. They have also suggested that the experts from the education department should act as the consultants for the pedagogic aspect of the programme. This combination will act as an interdisciplinary approach to the orientation courses.

Helpfulness of the Programmes

Table 4.11(a): Helpfulness of the Orientation Programme in the Teaching Profession

	Programmes	(Figures are in Percentages)	
		Yes	No
1	Preservice Programme	100	–
2	Inservice Programme	88	6

The respondents had attended some sort of orientation programme either preservice or inservice. The analysis of the data reveals that the orientation programme which they had attended was very helpful to both the groups. Only 6 percent respondents of inservice group did not find it helpful. This shows that most of the respondents feel that the orientation programme has helped them in their teaching profession.

The respondents have also given the reasons in support of the statement that orientation programme has been helpful for them.

The responses of the table 4.11(b) are based on the part 'yes' of the table 4.11(a). But the percentages have been

Table 4.11(b): The Various Aspects in Which the Orientation
Programme was found Helpful to the Participants

(Figures are in Percentages)

| Various Aspects | PROGRAMMES | | Total | Rank |
	Preservice Group	Inservice Group		
1.Self Confidence in Teaching	49	14	23	V
2.Systematic Instruction	41	35	37	III
3.Effective Teaching	44	35	38	II
4.Giving Proper Guidance to the Students	38	10	17	IX
5.Understanding the Behaviour of the Students	52	25	32	IV
6.Understanding the Process of Evaluation	17	17	17	X
7.Methods of Teaching	57	48	50	I
8.Awareness of the Students Problems	38	15	21	VII
9.Remedying the Defects in Teaching	15	22	20	VIII
10.Understanding Educational Psychology	23	23	23	VI
11.Organizing Seminars and Debates	5	-	1	XV
12.Gaining Knowledge of the Aims and Objectives of Education	4	1	2	XIV
13.Gaining Knowledge of Motivational Factors	-	20	15	XI
14.Understanding Theories of Learning	6	9	8	XIII
15.Gaining Practical Knowledge of Audio Visual Aids	-	13	10	XII

calculated out of the total respondents. The responses
(answers to open end question) which describe the reasons
explaining the helpfulness of the orientation programme have
been analysed, as represented in table 4.11(b). The responses
have been categorized broadly under 15 heads.

The first rank has been given to the methods of teaching.
The participants considered that the aspect of the programme
which dealt with the methods of teaching was most helpful.

Since systematic instruction and effective teaching have
been rated on 2nd and 3rd rank respectively, both of them go
together.

The fourth rank has been given to the psychological
aspect viz. understanding the behaviour of the students.

The fifth rank has been given to gaining self confidence
in teaching.

The sixth and seventh rank have been given to educational
psychology and problems of the students respectively.

The other ranks as shown in the table have also been
calculated but their percentage was found to be very low.

The data revealed that the orientation programme was
useful to the participants from different aspects.

NOTE:- No response was found for question No. 4(C),
which was based on the non-utility of the programmes.

Table 4.12: The Attitude of the University Teachers
Towards Seeking Opinion Regarding Their Teaching

(Figures are in Percentages)

	Programmes	Yes	No
1	Preservice Group	96	2
2	Inservice Group	69	5

A teacher can improve one's teaching through many devices. He can ask his colleagues to observe his classes with a view to give suggestions. He can observe the teaching of his colleagues. He may also ask his students, through an evaluation sheet, to give their observations. He may also develop a self-rating scale.

Here an attempt is made to find out whether the college or university teachers get their classroom teaching checked by any device. The responses are analysed in the tables which follow.

The table 4.12 reveals that 96 and 69 percent of the respondents of the two groups feel that university teachers should seek opinions regarding one's own teaching. Of the inservice group 26 percent have not responded to this query. It shows that the majority of the teachers have a favourable attitude towards seeking opinion regarding their teaching.

Table 4.13(a): Evaluation of Lecture/Teaching of
the Participants

(Figures are in Percentages)

	Programmes	Yes	No
1	Preservice Group	93	6
2	Inservice Group	71	28

The analysis of the data in this respect (table 4.13-a) reveals that the majority of the respondents in favour of evaluation of their lecture/teaching.

It indicates that the efficiency of teaching was checked in the case of the majority of the respondents through different devices. These devices have been reported in the next table.

Table 4.13(b):   The Methods of Checking the
                 Classroom Instruction

(Figures are in Percentages)

Methods of Checking	Programmes:	P.Group	I.Group	Total Percen-tage	Rank
1 Through Comments of Colleagues on the Basis of Observations		66	43	48	I
2 Evaluation by Students		40	50	47	II
3 Self Evaluation Through Taped Lecture		9	13	12	III
4 Micro-Teaching Session		6	13	11	IV

How do the teachers evaluate their teaching? In response to this question the methods mentioned in table 4.13(b) for evaluating the teaching, have been indicated by the respondents. Probably the first two methods are appropriate to give them a proper feedback, but micro-teaching sessions with emphasis on auto-correction can also be a useful device.

Table 4.14(a):   The Utility of the Orientation Programme
to Check One's Teaching Efficiency

(Figures in Percentages)

	Programmes	Yes	No
1	Preservice Group	98	2
2	Inservice Group	83	11

Data reveals (table 4.14(a)) that both the groups agreed
that the orientation programmes were useful in evaluating and
checking their teaching efficiency. This indicates that during
the orientation sessions, participants were given an opportunity
to evaluate their teaching. This evaluation of teaching of the
respondents is regarded as effective. This is indicated in the
next table.

Table 4.14(b):   The Opinion Regarding Further Improvement in
Teaching on the Basis of Checking

(Figures are in Percentages)

	Programmes	Yes	No
1	Preservice Group	98	2
2	Inservice Group	81	11

Both groups felt that their efficiency of teaching
improved due to the evaluation or checking during the orientation
course; they received feedback. But in this respect the percentage
of respondents of preservice group is higher than the percentage of
inservice group. The reason being that supervision of day to day
teaching is systematic. Under preservice programme and their
favourable responses to supervision of classroom teaching

strengthens the belief that proper feedback is necessary for the improvement of the teaching efficiency.

Table 4.14(c): The Various Aspects of Improvement in Teaching

(Figures are in Percentages)

	Various Aspects	Programmes		Total	Rank
		P.Group	I.Group		
1	Towards the Improvement in Self Confidence	27	15	18	V
2	Towards the Planning and Systematic in Teaching	29	20	23	III
3	Towards Effective Teaching	26	19	20	IV
4	Towards the Selection of Appropriate Methods	41&,	28	32	I
5	Towards Correcting Certain Wrong Practices in Teaching	22	24	24	II
6	Towards Creating Better Learning Environment	–	5	3	VII
7	Towards Using Audio Visual Aids	–	10	7	VI
8	Towards the Feedback Received on One's Own Teaching	–	2	1	VIII

The responses were collected from the answers to an open end question. The respondents gave thought to this question and responded accordingly. The responses were few but these are important. Quantitatively the response percentage may not be high but these serve to show that orientation programmes help to improve teaching-learning process.

Hence, the data has to be analysed qualitatively (table 4.14(c). The data reveals that the fourth aspect i.e."helped in selection of apprropriate methods" has been placed at the first

Rank and "correcting certain wrong practices" at the Second
Rank.

The respondents have emphasized that on account of the
orientation courses they have acquired certain teaching skills,
viz., selection of appropriate teaching methods, correcting
teaching techniques and planning of teaching systematically.
Other aspects of the orientation programme have also been ranked
by the respondents as given in the table. But in an open end
type of question the respondents have a tendency to skip over
many of the details, and many do not respond due to time
constraint.

Evaluation of the Participants

Table 4.15 (a): The Opinion Regarding the Evaluation of
Participants at the End of the Orientation
Programme

(Figures are in Percentages)

	Programmes	Yes	No
1	Preservice Group	93	4
2	Inservice Group	83	16

This question was aimed to find out the opinion of
respondents regarding the evaluation of participants at the end
of an orientation programme. The table 4.15 (a) reveals that
93 and 83 percent respondents of preservice and inservice
education respectively were in favour of an evaluation of the
participants at the end of the programmes.

Table 4.15(b):   The Suggested Methods by Which the
                 Participants Could Be Evaluated

(Figures are in Percentages)

	Choices	P.Group Percen-tages	P.Group Rank	I.Group Percen-tages	I.Group Rank	Total	Rank
1	By External Examination	30	IV	25	IV	26	IV
2	By Assessment of Sessional Work	21	V	28	III	27	III
3	By Internal Evaluation	50	I	39	II	42	II
4	Day to Day Participation	35	II	59	I	53	I
5	By Internal and External Both	34	III	5	V	12	V

The evaluation of the performance of the participants of such programmes is essential from two angles:-

(a) It indicates the achievement of the participants, and

(b) It is an indication of the success of the programme as well.

The question of evaluation of the performance is important from one more angle, i.e., the university teachers, who participate in the inservice programme conducted by the universities or through the assistance of the U.G.C., are mature enough and their participation in such programme in itself to provide them with the necessary skill. Hence in some of the programmes, the institutions do not have a formal system of evaluation of the performance of the participants and their

attendance is considered to be enough as testimony of their
successful participation. Hence, in this question, the
investigator wants to know, specially from mature college/
university teachers who have participated in inservice programme,
to give their opinions about the evaluation of the participants
in such programmes.

However, under the preservice programme a degree is
awarded by the University. Hence, the evaluation of the candidates
is obligatory.

During the personal interviews with a section of the
respondents in a preservice institution, it was expressed that
the respondents preferred both internal as well as external
evaluation in order to avaoid favouratism.

One thing becomes clear that more than 50 percent of
the participants of both the groups have voiced the feeling that
evaluation should be done through day to day participation, This
may be formal and as well as informal. If analyzed further it is
obvious that the participants of by and large are not in favour
of a structured formal evaluation. There should be an internal
evaluation.

> Note:- There was no response to
> Question No.8(c).

Orientation in Evaluation Programmes

Table 4.16(a): Guidance During the Orientation
Programme to Improve the Examination
System

	Programmes	(Figures are in Percentages)	
		Yes	No
1	Preservice Group	85	13
2	Inservice Group	63	31

In an answer to the query, whether some orientation to
improve the examination system, in colleges and universities, was
provided during the orientation course. The respondents reported
that some lectures on university system of examination were
delivered during the orientation programme.

Table 4.16(b): The Utility of the Evaluation Techniques
Discussed During Orientation Programme

	Programmes	(Figures are in Percentages)	
		Yes	No
1	Preservice Group	77	7
2	Inservice Group	56	5

From the analysis of the data, it is obvious that guidance
in evaluation techniques was helpful to the participants in their
actual practice. The 77 and 56 percent respondents of preservice
and inservice groups respectively felt the utility of this
aspect of the orientation course.

Table 4.16:(c): Evaluation Techniques Which
Were Helpful

(Figures are in Percentages)

| Various Aspects | P R O G R A M M E S | | | | Total | |
| | P.Group | | I.Group | | | |
	Percentage	Rank	Percentage	Rank	Percentage	Rank
1.Understanding of the Method of Continuous Assessment	44	II	35	I	38	I
2.Concept of Periodical Tests	29	IV	18	III	21	IV
3.Concept of Remedial Measures	28	V	17	IV	20	V
4.The Construction and Administration of Objective Type Tests	54	I	27	II	34	II
5.Awareness of Grade System in Evaluation	39	III	15	V	22	III
6.Applying Suitable Techniques of Evaluation	9	VI	5	VI	6	VI

The data is based on an open end type question and it has

been qualitatively analysed and the results are placed in the

table 4.16(c).

Understanding of the methods of continuous assessment is

ranked first by both the groups. To construct objective based

questions is a skill in itself and a section of the respondents

feel that this has helped them in their day to day work. These

are all important aspects of the evaluation system in universities,

and the respondents felt that the understanding of their aspects of evaluation is helpful to them.

Here, there was a difference of opinion in the ranking by the preservice group and inservice group which was ironed out when the frequencies were added up to present the cumulative percentages on the basis of which final ranking was done.

Methods of Teaching During Orientation Programme

Table 4.17: The Effectiveness of Instructional Approaches which were Adopted During Orientation Programme

| Instructional Approaches | PROGRAMME | | | | | |
| | P.Group | | I.Group | | Total | |
	Scores	Rank	Scores	Rank	Scores	Rank
1 Lecture Method	284	II	781	V	1065	IV
2 Lecture followed by Discussion	295	I	868	I	1163	I
3 Presentation by Two or More Persons on the Same Topic followed by Discussion	274	III	801	III	1075	III
4 Group Work	239	VI	715	VII	954	VI
5 Presentation by Participants Themselves	258	V	794	IV	1052	V
6 Multi-Media (Use of Films, etc.)	271	IV	807	II	1078	II
7 Micro-Lecture Session	236	VII	716	VI	952	VII

Correlation Between P.Group and I.Group $\rho=.79$

In the analysis of the data, presented in the table 4.17, the investigator has resorted to two methods. The responses were rated on a four point scale to which scores 4, 3, 2, 1 were given according to 'very effective' to 'not at all effective' responses.

These scores were added up and ranks were given according to the cumulative scores obtained in each category.

Secondly, the investigator calculated the coefficient of correlation (ρ) between the ranks of preservice and inservice groups.

With these techniques, the investigator was able to locate the methods which were effective.

During the orientation courses the resource persons or the consultationers make use of different techniques, e.g. lecture, lecture-cum-discussion, seminars, through team-teaching, etc. The question was addressed to the participants as to which of the techniques they found suitable during the orientation course.

Seven distinct approaches were listed and the opinions regarding their effectiveness were solicited from the respondents. The table 4.17 shows as to which of these methods were regarded as effective by the participants.

The lecture followed by discussion was rated first by both the groups individually as well as summatively.

The multi-media approach was rated at second rank by the respondents of inservice group, whereas at fourth rank by preservice group. The combination of these two scores gave it the second rank among other approaches.

The presentation by two or more persons on the same topic followed by discussion was rated at third rank separately by both

the groups and also by combining these two scores.

The second rank and the fifth rank have been given by both groups of preservice and inservice respectively to the lecture method. When the scores of two groups were added, it stood as the fourth rank.

The preservice group rated the approaches of presentation by participants as the 5th rank, whereas the inservice group rated it as the fourth. But on adding up of the two scores, the approach was ranked 5th.

The group work has been placed at sixth rank jointly, whereas sixth and seventh ranks have been given to it by the respondents of preservice and inservice group individually.

In some of the orientation programmes, micro-teaching session are organized. The micro-teaching approach was rated seventh, after adding the scores of both preservice group and the inservice group; whereas individually the preservice group ranked it seventh and the inservice group ranked it sixth.

The significant of correlation ρ = .79 tells that the ratings by both the groups correspondingly are the same in most of the cases.

From the above table 4.17, it is quite obvious that the participants benefitted by the adoption of different approaches of teaching during the orientation programme, but they have a preference for the technique in which they are involved to

discuss on an issue. The participation is an important aspect.

Aspects of the Orientation Programme

During the preservice or inservice programmes under review, the participants were exposed to different aspects of teaching and learning processes. From the perusal of the different orientation programmes and their syllabi, it is obvious that the activities may be divided under two categories: (a) Theoretical and (b) Practical. The theoretical programmes or activities consist of the historical, sociological and philosophical aspects of the higher educatiom. Under this category, there are discussion on new teaching devices, and new methods of evaluation.

Under the practical work, the participants are asked to give lessons in the classroom, and sometimes there are micro-teaching sessions in which participants demonstrate their skill of teaching. The participants in some of the programmes are asked to participate or present a seminar or are expected to prepare a model test paper.

Here, the participants were asked to express how far they benefitted by different activities of the orientation programmes. Their reactions are tabulated in table 4.18.

The analysis of the data has been done in two ways: (i) by assigning scores 4, 3, 2, 1 to the categories ('to a great extent', 'to much extent', 'to some extent' and 'not at all') respectively; (ii) by calculating coefficient of correlation (ρ) between preservice group and inservice group.

Table 4.18: To What Extent Participants Have Been Benefitted With Respect to Various Aspects of the Orientation Programme

| Various Aspects | PROGRAMMES | | | | | |
| | P.Group | | I.Group | | Total | |
	Scores	Rank	Scores	Rank	Scores	Rank
Theoretical Aspect						
1 Philosophical Background of Education	241	VIII	662	XI	903	XI
2 Psychological Treatment of Students	290	I	792	III	1082	II
3 Administrative Problems of University College	232	XI	648	XII	880	XII
4 Classroom Climate	261	VI	784	V	1045	V
5 The Use of Audio-Visual Aids	268	V	801	II	1069	III
6 Problems of Higher Education	269	IV	756	VI	1025	VI
New Techniques of Teaching						
7 Lecture Method	240	IX	713	VIII	953	VIII
8 Discussion Method	281	II	835	I	1116	I
9 Programmed Learning	252	VII	676	X	928	IX
Evaluation						
10 Grade System	231	XII	681	IX	912	X
11 Question Bank	234	X	742	VII	976	VII
12 Internal Assessment	271	III	791	IV	1062	IV

Correlation (ρ) Between P.Group and I.Group = .80

Significant at .01 level.

Table continued...

| Various Aspects | PROGRAMMES | | | | Total | |
| | P.Group | | I.Group | | | |
	Scores	Rank	Scores	Rank	Scores	Rank
Practical Aspect						
1 Lecture Method	261	VII	784	VII	1045	VII
2 Discussion Method (Tutorial, Symposium)	292	I	820	II	1112	II
3 Micro-Teaching Session	268	VI	791	VI	1059	VI
4 Participation in Seminars	285	IV	816	III	1101	III
5 Construction of Model Test Paper	270	V	793	IV	1063	V
6 Project Work	291	II	792	V	1083	IV
7 Participation and Observation of Classroom Teaching	288	III	834	I	1122	I

Correlation (ρ) Between P.Group and I.Group = .79

Significant at .05 level.

In the analysing, the ranks have been assigned according
to the scores for both the groups separately and then combining
the scores of the two groups and common ranks have also been
assigned in the same manner.

According to the responses, the following are the items
which were regarded as beneficial to the participants by both
the groups. According to the ranks the following items are
regarded beneficial under theoretical aspects of the programme.

The combined first rank has been given to the deliberation
on 'discussion method'. The preservice candidates rated it second
rank and inservice candidates rated it at the first rank.

The secdnd combined rank has been given to 'the psychological
treatment of students', but it was given first rank by the
respondents of preservice and third rank by the respondents of
inservice group. Deliberations or discussion on this aspect during
the orientation is regarded quite beneficial.

The use of audio visual aid was rated at third rank
jointly whereas at the second rank by the respondents of inservice
and fifth by the preservice group.

The fourth combined rank has been assigned by both the
groups to internal assessment, whereas the third rank was given
to it by the respondents of preservice and fourth rank by inservice
group individually. Understanding of the internal system of
education is also treated quite helpful by the participants.

Classroom climate was rated at sixth rank by the
preservice group and fifth by the inservice group. But the totalling
of the scores gave it the fifth rank.

The problems of higher education was rated at fourth
rank by the preservice group and sixth by the inservice group.
But the totalling of the scores gave the category seventh rank.
To understand the problems and to have deleberations on such an
important topic is regarded quite useful.

The eighth rank has been given to lecture method
combinedly by both the groups, whereas it was assigned the ninth
rank by the respondents of preservice and eighth rank by the
inservice group. Lecture method is still followed by a majority of
lecturers. The topic- 'How to make lecture as effective?' is
regarded useful by them.

The ninth rank has been given to programmed learning
by both the groups, whereas it was assigned the seventh rank by
the respondents of preservice and tenth rank by the inservice
group.

The tenth rank has been given to the discussion on grade
system the scores of two groups put together by both the groups,
whereas it was assigned the twelfth rank by the respondents of
preservice and ninth rank by the inservice group.

The philosophical background of education was rated at
eleventh rank by combining the score of both the groups, whereas
eighth rank was assigned to it by the respondents of preservice

and eleventh rank by the inservice group.

The last rank i.e. twelfth, was assigned to the scores of two groups put together to administrative problems of university/college, whereas eleventh rank by preservice and twelfth rank by inservice group.

All these ranks were assigned to the theoretical aspect of the programme. From the theoretical point of view, it seems that the participants find it more useful to have deliberation on topics pertaining to the teaching method, and understanding the psychological problems of the students and higher education.

Practical Aspect

According to the syllabi and also through observation, the investigator found that different types of practical work or activities are organiz ed during the orientation programmes. The participants are asked to give lectures on a topic, to present a paper in a seminar, to participate in discussions, to prepare model question papers, demonstrate their teaching skill, and similar other activities.

The participants were asked to give their opinions with regard to the utility of these activities of practical nature. Their responses are tabulated in Table 4.18.

The skills for practical aspects may be different than those involved in the theoretical aspects. Therefore, its ranking is done separately.

The participation and observation of classroom teaching,
was assigned first rank by both the groups, whereas third rank
by pre-service group and first by the in-service group.

The second rank was assigned to discussion method by
combining two groups, whereas first rank was assigned to it by
pre-service and second by the in-service group.

The third combined rank was given to participation in
seminars. But fourth rank was assigned to it by the respondents
of pre-service and third rank by the in-service group.

The project work was assigned the fourth rank jointly
by both the groups, whereas it was assigned second rank by the
respondents of pre-service and the fifth rank by the in-service
group.

The fifth rank was assigned combinedly to construction
of model test paper, whereas, while the respondents of the pre-
service group rated it at fifth rank, the in-service group rated
it at fourth rank.

The groups- P.Group and I.Group, awarded the sixth
rank to the micro-lessons approach, both individually as well as
combinedly. Yet micro-lessons practicals are not provided in all
types of programmes under study.

The last i.e. seventh rank was assigned both combinedly
and individually to the lecture method.

The significance of correlation (ρ) indicates that

whatever ranks were given by one group, mostly corresponded
with the ranks given by the other group, on the different items
of the programme in both theoretical as well as practical
aspects.

All these ratings indicate the benefit of the
programme for both the groups.

Table 4.19: Opinions Regarding the Need of Such
Courses After an Interval of Five Years

| | Programmes | (Figures are in Percentages) | |
		Yes	No
1	Preservice Group	70	24
2	Inservice Group	80	17

According to table 4.19 it is obvious that both the
groups are in favour of conducting such programmes at five year
interval in order to enable the teachers to refresh themselves
with new skills and knowledge of the technology of teaching.

The purpose of this question was to find out the utility
of these programmes from the participants. The favourable
responses (80 percent) from the inservice group indicate that the
participants have benefitted from such programmes. They are not
only prescribe such course for themselves only but they also
suggest that such inservice programmes for other college/
university teachers should be organized after an interval of
five years.

Professional Problems

A question was addressed to the respondents in which they were asked to list out their professional problems which they faced before joining the orientation programme.

The next question was to find out from the respondents in which way the orientation programme helped them to overcome their professional problems. Their opinionsx are tabulated in the table 4.20.

Table 4.20:   Professional Difficulties Experienced by the Participants Before Joining the Orientation Course

| Various Professional Difficulties | PROGRAMMES | | | | | |
| | P.Group | | I.Group | | Total | |
	Percen-tage	Rank	Percen-tage	Rank	Pergen-tage	Rank
1 Respondents were not aware of effective methods of teaching.	24	II	22	II	23	II
2 Respondents were not aware of techniques of dealing with students.	16	III	25	I	23	II
3 Respondents faced difficulties in presenting content through lecture method.	11	IV	8	VI	9	IV
4 Respondents lacked self confidence in teaching.	38	I	18	III	23	II
5 Respondents were not aware about the principles of motivation.	–	–	15	IV	12	VI
6 Respondents were not aware of how to use audio-visual aid.	–	–	7	VII	5	VII
7 Respondents were not aware of techniques to evaluate teaching.	–	–	11	V	8	V

The analysis has been done and the results have been put

in the table 4.20. The responses are an indication of the professional problems faced by the participants.

The items 1, 2 and 4 in the table received the equal rating of 23 percent on the total sample. The items were : (i) awareness of effective methods of teaching, (ii) awareness of techniques of dealing with students, and (iii) self-confidence in classroom situation.

Since all the three items have received the same rank, they have to be averaged out. Therefore, the analysis would be $\frac{1+2+3}{3}$ = 2nd rank.

Hence, three items receive the combined 2nd rank. The ranks as given by individual groups are self evident from the table.

Both the groups ranked the following two items separately viz., difficulties of presenting content through lecture, at fourth rank and evaluation of teaching as fifth.

The respondents of the preservice group have rated the difficulties in presenting the content as the fourth rank, while the respondents of the inservice group have rated it as sixth rank.

The sixth rank has jointly been assigned to the lack of awareness about motivation by the inservice group.

The seventh rank has been combinedly given to the lack of knowledge in using the audio-visual aids.

The table indicates that respondents had difficulties with regard to the teaching methods, psychological principles of teaching and evaluation procedure before they joined the course.

Out of the 82 preservice group, 13 respondents (16 percent) stated that they could not describe any difficulty as they had no experience whatsoever.

Ways to Overcome from Professional Problems

This was an open end question and the teachers have their reactions with regard to the gain that they have received to overcome their professional problems which they felt before they had attended the orientation programme. These reactions are very helpful specially to the organizers of such courses, because they may incorporate and give emphasis to such items in these programmes.

The table 4.21 shows that both the groups i.e. preservice as well as inservice groups have been helped by the orientation programme to a great extent. Here the top most rank goes to the developing of the understanding of psychology of the students. Both the groups agree fully on this item.

'To make teaching systematic', has been rated the percentage of two groups put together at second rank while the respondents of preservice group rated it at second rank, the inservice group rated at the third rank.

Table 4.21: The Ways in Which the Orientation Programme has helped the Participants to Overcome the Professional Problems

Ways to Overcome the Professional Problems	P.Group		I.Group		Total	
	Percentage	Rank	Percentage	Rank	Percentage	Rank
1 Understanding of the Systematic Teaching	29	II	25	III	26	II
2 To Understand the Planning of the Lectures	10	VII	20	V	17	V
3 To Understand the Students Psychology	39	I	47	I	45	I
4 To Understand the Evaluation of Teaching	18	V	16	VI	17	VI
5 To Gain Self-Confidence in Teaching	22	IV	21	IV	21	IV
6 To Acquire Skills in Setting Question Papers	16	VI	–	–	4	VIII
7 Towards the Knowledge of Motivating Students	23	III	25	II	25	III
8 The Use of Audio-Visual Aids in Teaching	–	–	8	VII	6	VII

The knowledge of how to motivate the students has been assigned at the third rank jointly. But the respondents of preservice group rated it at third rank, whereas inservice group at second rank.

The fourth rank combinedly as well as individually has been given to develop confidence in teaching by both the groups.

The orientation programme helped the participants in planning the lectures, and this aspect has been rated at the fifth rank jointly by both the groups. But the respondents of preservice group rated it at the seventh rank; whereas the inservice group at the fifth rank.

The sixth rank jointly has been assigned to evaluating of the teaching. But the respondents of preservice group rated it at fifth rank, whereas the inservice group at sixth rank.

The knowledge of the use of the audio-visual aids has been rated at seventh rank combinedly and also separately by only one group i.e. preservice group.

The skills in setting question papers for the evaluation of students achievements has been rated at eighth rank combinedly but it has been rated at sixth rank by the respondents of preservice group only.

The general picture of the table reveals that the respondents had felt that these courses have made them to understand the psychology of the students in a better manner. Teaching effectively is the second outcome of the course. But the knowledge of evaluation aspect has not found a higher place in the response list of the participants.

The table further indicates that the orientation programmes, from the point of view of the participants, have been useful to overcome some of the professional problems which they faced before joining the orientation course.

Two questions are tabulated in table 4.22. The first question related to the facilities which the respondents expect. The second question was to suggest improvements for organizing orientation courses.

Facilities and Suggestions for Improvements

Table 4.22: Suggestions by the Groups for Improvement
of the Orientation Programme

Suggestions	P.Group		I.Group		Total	
	Percentage	Rank	Percentage	Rank	Percentage	Rank
Facilities Required						
1 Book aid and reading material should be given to the participants.	33	3	58	1	52	2
2 Well equipped library and reading facilities should be provided to the participants.	15	9.5	15	8	14	9
3 More staff members should be recruited in the department.	4	15.5	–	–	2	19
4 Special financial aid should be given to the participants in terms of stipend or scholarship and T.A. D.A. etc.	70	1	57	2	60	1
5 Provision should be made for proper guidance in teaching-learning process.	18	7	1	16	5	15
6 Provision should be made for flexible time table during the course.	4	15.5	3	14	3	16
7 Provision should be made for facilities of audio-visual aids for practice.	21	6	20	5	20	4.5
8 Provision should be made for more practicum facilities during the course.	55	2	5	13	18	7
9 There should be provision for duty leave for attending the course.	–	–	27	4	20	4.5

Continued Table 4.22

Suggestions	P.Group Percentage	Rank	I.Group Percentage	Rank	Total Percentage	Rank

Enrichment of the Programme

	Suggestions	P.Group Percentage	Rank	I.Group Percentage	Rank	Total Percentage	Rank
10	These programme should be conducted in the regional language.	15	9.5	10	11	11	·12
11	Admissions to the orientation programme should be restricted to a limited number.	2	17.5	–	–	1	20
12	There should be a surety of securing jobs after enrichment of programme.	29	4	–	–	7	13
13	More practical courses related with teaching skills should be emphasized.	–	–	38	3	29	3
14	Content along with methodology should also be included in the course.	22	5	11	10	14	10
15	Subject experts should be invited for lectures.	17	8	19	7	18	6
16	Refresher courses should be conducted frequently.	6	14	19	6	16	8

Process

	Suggestions	P.Group Percentage	Rank	I.Group Percentage	Rank	Total Percentage	Rank
17	Discussion session should be more democratic.	9	13	6	12	7	14
18	There should be some provision for educational tours for the participants.	2	17.5	3	15	2	18

Evaluation

	Suggestions	P.Group Percentage	Rank	I.Group Percentage	Rank	Total Percentage	Rank
19	Equal emphasis on internal as well as external evaluation should be given.	12	11.5	11	9	11	11
20	Degree or diploma should be made compulsory for university appointment.	12	11.5	–	–	3	17

Many suggestions have come in response to the open end question regarding the improvement of the programme. The analysis has been done and the results have been placed in the table 4.22. For every suggestion percentages for responses were calculated and they were later converted into ranks.

The purposes to elicit the responses were two fold: (i) to give a ventilation of their feelings regarding the orientation courses which they have undergone and (ii) to give a direction to the organizers of the courses, so that the programme could be improved in future.

Since the questions were open end, the obtained responses on the basis of similarity in idea were identified under twenty suggestions. Though these suggestions were over-lapping, they have been classified into four broad categories. They are:

(i) Facilities required by the participants
(9 suggestions)

(ii) Enrichment of the programme (7 suggestions)

(iii) Process of conducting programmes (2 suggestions)

(iv) Evaluation of the programmes (2 suggestions).

It is observed from the table that the first four ranks have combinedly been assigned to the four facilities by both the groups. The facilities are as such :

(i) Special financial help should be given to the participants in terms of stipend, scholarships and T.A. D.A., etc.

(ii) Book aid and reading material should be given to
the participants.

(iii) More practical courses related with teaching skills
should be emphasized.

(iv) Provision should be made for facilities of audio-
visual aids for practice.

There were other six types of suggestions made by the two
groups on which they have differed from one another. These
differences may be either due to the nature of the programme or
facilities required by them. The suggestions are as follow.

The preservice group suggested that more staff member
should be recruited in the department of education so that proper
guidance could be given. This was their special programme. But the
inservice group did not suggest any such thing in this connection.

The inservice group suggested that duty leave should be
provided to the participants to attend the programme, but since
such facility are not required by preservice group at all. They
did not make any suggestion of this nature.

The preservice group suggested that admission to such
courses should be restricted so as to make the training effective.
But the inservice group did not make any such suggestion.

The preservice group suggested that job security should be
provided by the universities after completion of the course. Along
with this the preservice group demanded that degree or diploma of
such courses should be made mandatory for university teaching jobs.

The inservice group suggested that the courses should be made more practical oriented which can develop teaching skills. But pre-service group did not make any remark regarding this because they did not have any practical experience of teaching.

However, the suggestions made by both the groups are more facility oriented rather than academic based. If the organizers consider these suggestions, they may be benefitted in organizing the courses. This may also help the participants in building their attitude more favourable.

Attitude of University Teachers Towards Pre-service
and Inservice Education Programmes

Purpose of Studying Attitude

Teaching is an activity which has an influence over the
students. In order to influence the students, teaching should be
effective. To make teaching effective, teachers should be skilful
in all its aspects. The teaching skills can be developed among the
university teachers through training. The teachers may become more
interested in the training if their attitude is favourable towards
the training programmes. Hence the investigator planned to study
teachers' attitude towards the training programmes, i.e. to find
out whether they have a favourable attitude, and if so an
orientation programme may bring some change in the attitude.
Keeping these objectives in mind the investigator prepared an
attitude scale.

Plan to Study Attitude

This part of the chapter presents the results of the
study of attitudes of university teachers towards the preservice
and inservice education programmes, conducted by a few universities
and by the U.G.C. in the form of seminars , summer institutes etc.
The attitude of university teachers, who have undergone
orientation programme and also the teachers who have not
attended any such courses is studied on the basis of sex,
teaching experience, type of programmes etc.

The analysis has been planned under different heads
as such:

    (a) to study the attitude of different groups,

    (b) to study the attitude of different institutions,

    (c) to study the attitude on different sex and
        teaching experience,

    (d) to study the change in attitude through pre-test
        and post-test,

    (e) to study the attitude on different aspects of
        the programme,

    (f) to study the attitude in terms of percentages.

The scale was administered to a sub-sample of 145
teachers who have attended the pre-service and in-service education
programmes and 22 teachers who had not attended the programme. In
addition to this sub-sample of 46 teachers of M.S.University of
Baroda and participants to a short term institute in 'Methodology
of Teaching and Evaluation' were administered the same attitude
scale as pre-test and post-test during two sessions conducted by
Centre of Advanced Study in Education (CASE) in the October 1978
and November 18 to December 9, 1979.

The sample for the attitude scale is small in number. It
has to be so because a few of the institutions under investigations
had a small number of students enrolled for the course. In order
to maintain minimum equity among the sample. The investigator had
to decide upon this number of 145 teachers. This decision has the
support of Guilfords' suggestion on sample selection wherein
he says:

"One should also have some hesitation in using
't' formulas if the Ns in two samples differ
markedly". (Guilford, 1956, Page 221).

The teachers were asked to tickmark ($\_/$) on a five point
scale, which ranged from strongly agree, agree, undecided,
disagree and strongly disagree statements in the scale. The
sample was further divided into sub-groups according to the
various variables as shown in the tables given in the pages
which follow :

Interpretation of the Attitude Scale

The methodology adopted for the analysis and interpretation
of the attitude scale has already been discussed and described at
length in the chapter three. Hence in this chapter only the
results emerging out of the interpretation are being discussed.

Difference in Attitude Between the Groups

Table 4.23:   The Mean Scores of the Groups on
            Attitude Scale

Groups	Universities	N	Mean Scores	Attitude
Pre-service Group	Annamalai University	46	144.36	Favourable
	Calicut University	10	154.80	-do-
In-service Group	M.S.University	20	128.45	Favourable
	Madras University	26	143.69	-do-
	Madurai University	21	152.52	-do-
	U.G.C. Programme	22	135.13	-do-
Untrained Group		22	115.32	Favourable

The table 4.23 shows the mean scores of the different groups of universities, which are higher than the mean score of the attitude scale 108. The table reveals that the attitude of all the groups is favourable towards the orientation programme. The investigator would like to explain another point too. Here, the purpose was to know, whether these programmes could change the attitude of the university teachers favourably towards the programme. If the mean score of the untrained group is taken as an origin point, thereby with this frame of reference the mean scores of the preservice group and inservice group were found to be higher. This indicates that the orientation programme has had an influence on changing the attitude of the participants favourably towards orientation programme. The table 4.23 shows the significant difference between the untrained group and other groups. This analysis indicates that the orientation programme in the form of preservice or inservice education is one of the main factors to change the attitude of the teachers. The justification of this concept has been proved further through the administering of the attitude scale as pretest and post-test to the participants (in the table 4.28(a) and 4.28(b)) of the orientation programme in M.S.University of Baroda (Gujarat).

The 't' technique has been applied to compare the attitude towards the preservice and inservice education programme among the sub-groups formed on the basis of different variables.

Table 4.24: Difference in Attitude Between Trained
and Untrained Groups

Programmes	Mean	N	Inservice Group			Untrained Group		
			D	SE	CR	D	SE	CR
Preservice Group	146.23	56	5.99	2.43	2.46 Sig. at .05	30.91	3.47	8.90 signi. at .01 level
Inservice Group	140.24	89	–	–	–	24.92	3.89	6.40 sig.at .01 level
Untrained Group	115.32	22	–	–	–	–	–	–

From the table 4.24, it may be seen that mean score of the attitude of P.Group towards the orientation programme was found to be 146.23 and the mean score of the I.Group was 140.24, whereas the score of the untrained group was only 115.32.

Necessary calculations have been done and CR was found to be 2.46 between P.Group and I.Group, which was significant at .05 level, whereas the value of CR between P.Group and U.Group, and Inservice and Untrained group were found to be 8.90 and 6.40 respectively. All these CR's were found to be significant at .01 level. It means P.Group and I.Group have shown higher as well as favourable attitude which was significant also, in comparison to those of untrained.

Difference in Attitude Among the Institutions

In order to know the difference in attitude between seven groups as shown in table 4.25 twenty one combinations were made. The difference of means scores (D), standard error, 't' value and level of

Table 4.25: Difference in Attitudes Between Twenty one (21) Combinations of Seven (7) Groups

Group	Mean Scores	N	Calicut University				M.S. University				Madras University				Madurai University				U.G.C. Programme				Untrained Group			
			D	SE	't'	Sig	D	SE	't'	Sig	D	SE	't'	Sig	D	SE	't'	Sig	D	SE	't'	Sig	D	SE	't'	Sig
1. Annamalai University	114.76	46	10.44	4.03	2.58	.05	15.90	2.65	5.79	.01	3.08	.28		Not	8.16	2.96	2.76	.01	9.23	2.81	3.28	.05	29.04	3.55	8.18	.01
2. Calicut University	154.80	10					26.35	5.37	4.91	.01	10.11	5.47	1.85	Not	2.28	4.81	.47	Not	19.67	4.44	4.43	.01	39.48	6.50	6.07	.01
3. M.S. University	128.45	20									15.24	4.99	3.05	.01	24.07	4.12	5.84	.01	6.68	3.88	1.72	Not	13.13	5.11	2.57	.05
4. Madras University	143.69	23													8.83	4.06	2.17	.05	8.56	3.90	2.19	.05	28.37	4.87	5.83	.01
5. Madurai University	152.52	21																	17.39	3.18	5.47	.01	37.20	4.37	8.51	.01
6. U.G.C. Programme	135.17	22																					19.81	4.59	4.32	.01
7. Untrained Group	115.32	22																								

significance have been mentioned in the table.

As already mentioned, there were twenty one combincations. Of these, in thirteen (13) combinations, the difference of mean scores were found to be significant at .01 level in four combinations at .05 level, while between other combinations, there was no difference.

The most important point in this connection is that the trained groups have shown significantly higher positive attitude in comparison to those of untrained. Further on the basis of their mean scores, trained groups can be clubbed in three categories: Calicut and Madurai (154.80 and 152.52); Annamalai and Madras (144.36 and 143.69) and M.S.University and U.G.C. Programme (135.13 and 128.45). These combinations do not differ within themselves significantly but first two combinations Calicut and Madurai and Annamalai and Madras have shown significantly higher favourable attitude when compared with last combination, viz., M.S.University and U.G.C. Programme.

Difference in Attitude on Sex and Teaching Experience Variables

The table 4.26 reveals that the difference in the attitude among the male and female participants towards the orientation programme, is not significant even at .05 level. Moreover, the investigator had calculated the total mean difference of male and female of all trained groups, which is also not found to be significant. It indicates that sex is not playing any role in attitude towards orientation programme.

Table 4.26: Difference of Mean Scores Between Male and Female Teachers in Attitude Towards Orientation Programme

Different Universities	MEAN				M_1 M_2 D	SD	SE	't'or CR	Level of significance
	Male	N_1	Female	N_2					
1 Annamalai University	143.97	32	145.29	14	1.32	10.87	3.48	.38	Not sig.
2 Calicut University	156.50	4	153.67	6	2.83	13.73	8.87	.32	Not sig.
3 M.S.University	130.73	11	125.67	9	5.06	12.76	5.74	.88	Not sig.
4 Madras University	142.69	16	145.30	10	2.61	15.51	6.25	.42	Not sig.
5 Madurai University	152.33	12	152.77	9	.44	12.29	5.42	.08	Not sig.
6 U.G.C.Programme	133.29	14	138.38	8	5.09	10.96	4.81	1.06	Not sig.
7 Untrained Group	110.50	12	121.10	10	10.61	18.11	7.75	1.37	Not sig.
8 Total of all the Trained Groups	142.11	89	143.25	56	1.14	$\sigma_1=14.71$ $\sigma_2=13.97$	2.44	.47	Not sig.

Table 4.27: Difference of Mean Scores Between Teachers Having Below and Above 5 Years of Teaching Experience in Attitude Towards Orientation Programme

Different Universities	Mean Scores of Experience				m_1-m_2	SD	SE	CR	Level of Significance
	Below 5 Years	N	Above 5 Years	N	D				
1 M.S.University	127.67	12	129.63	8	1.96	15.31	6.99	.28	Not sig.
2 Madras University	143.33	10	144.50	11	1.17	15.55	6.61	.18	Not sig.
3 Madurai University	149.50	12	155.27	8	5.77	12.24	5.35	1.10	Not sig.
4 U.G.C.Programme	138.80	10	132.08	12	6.72	10.69	4.58	1.47	Not sig.
5 Untrained Group	118.38	13	110.89	9	7.49	18.55	8.04	.94	Not sig.
Total of all the Trained Groups	139.92	44	140.67	39	.75	$\sigma_1=14.51$ $\sigma_2=16.66$	3.37	.22	Not signi.

The table 4.27 shows that the difference in the
attitude among the teachers, having below and above 5 years
of teaching experience, towards the orientation programme is
not significant even at 0.05 level. Also the mean difference
in attitude of all the trained groups added together is not
found to be significant. It reveals that experience of
teachers is not playing any important part in forming any
attitude towards orientation programme.

Pre-Test and Post-Test

Change in Attitude of University Teachers

The investigator has discussed regarding the attitude
scale, which was administered on two groups of teachers of
M.S.University of Baroda, before and after the commencement
of the orientation programme in 'Methodology of Teaching'
in chapter third. The scores of the pretests and post-tests
are summative scores on five point scale.

Means, standard deviations (SDs), differences of
two means (D) and correlations between the pre-tests
and post-tests have been calculated and the results have
been placed in tables 4.28(a) and 4.28(b).

Table 4.28(a): Difference in Attitude on Two Tests
of University Teachers

Tests	Mean	SD	SE	D	Combined SE	't' Value	Correlation 'r'	Level of Signi.
Pre-test	118.70	15.32	3.25	9.75	1.49	6.56	.89	.01
Post-test	128.45	14.10	3.00					

Note: These tests have been taken during October 1978.

In the table 4.28(a), the mean scores of the pre-test and post-test of the participants were given. These participants were newly appointed lecturers of M.S.University of Baroda, their means are less in comparison to the means of next table. The 't' value (6.56) was found to be significant at .01 level. It reveals that there is a significant difference between pye-test and post-test at .01 level. The difference shows that the input of the orientation programme was very effective as it has brought about a favourable attitude among the teachers towards orientatiom programme.

Table 4.28(b): Difference in Attitude on Two Tests
of University Teachers

Tests	Mean	SD	SE	D	Combined SE	't' Value	Correlation 'r'	Level of Signi.
Pre-test	135.31	11.68	2.29	13.61	1.74	7.82	.68	.01
Post-test	148.92	10.37	2.03					

Note: These tests have been taken during November & December 1979.

The table 4.28(b) describes about a group, which was compared of the newly appointed teachers of M.S.University and the participants of a short term institute on 'Methodology of Teaching and Evaluation'

financed by U.G.C. This group was composed of experienced teachers. Due to these experienced persons the mean of pre-test and post-test of this group is greater than the mean of pre-test and post-test of the previous group. But the span of difference of means is nearly equal as shown in the table 4.28(a) and 4.28(b).

The 't' value of the table 4.28(b) was found to be significant at .01 level. It revelas that there is a significant difference between pre-test and post-test at .01 level. The difference shows that the input of the orientation programme was very effective because it has brought about a more favourable attitude among the teachers towards orientation programme.

Since the attitude was measurable on a five point scale, the mid point which described the undecided character of the response claimed 108 points. According to the mean scores of the four tests it is evident that the attitude of the teachers was favourable even before they attended the programme. With the added input of the programme, the mean scores at the post-tests improved upon the already existing favourable attitude towards the programme. The favourableness of the attitude also shows that the participants felt that this programme was helpful to them in their learning process.

Since the groups were the same at both the time (administering pre-test and post-test) and thereby the variables were controlled, the significant difference could be ascribed to the teaching of the course.

The Attitude on Different Aspects of the Programme

This aspect of the analysis was aimed to know, whether the attitude of the university teachers was similar in all aspects of the orientation programme or it differed on any other. The rationale for taking up this type of analysis was based upon the responses that the investigator received at the informal interviews with the participants after he had administered the attitude scale to them. Their oral responses revealed that they appreciated the teaching methods and evaluation aspects of the programme more than the other items of the scale. Hence, the investigator felt it justified to examine if these oral responses coincided with their responses given in the attitude scale.

The attitude scale consisted of 36 items covering the following seven aspects:

    (i) Philosophical

    (ii) Psychological

    (iii) Administrative

    (iv) Problems of higher education

    (v) Methods of teaching

    (vi) Evaluation

    (vii) Qualitative

Under the qualitative aspect the items which have been included are like, viz. "The Orientation Programme is a Wastage of time and money", and so on.

The negative and positive statements in the attitude scale were almost equal in number. The totalscores of each item of the pre-service group and in-service group and the un-trained group have been found out separately. Further the total scores of all the items of each group were divided by the corresponding total number of the respondents of each group respectively. In this way the mean scores of each item of each group was obtained.

Table 4.29: The Distribution of the Items of the Attitude Scale

	Different Aspects	Serial Number in Scale	Total
1	Philosophical Aspect	11,23,35	3
2	Psychological Aspect	8,9,10,12,22,24	6
3	Administrative Aspect	13,14,15,17	4
4	Problems of Higher Education Aspect	16,32	2
5	Methods of Teaching Aspect	1,2,3,5,20,26,27,29,30,34	10
6	Evaluation Aspect	19,25	2
7	Qualitative Aspect	4,6,7,18,21,28,31,33,36	9

The mean scores of 36 items for three groups have been calculated in the manner described before. Thereafter, aspect-wise mean score was calculated. This has been done by adding the mean scores and dividing the same by the corresponding number of the items. In this way, the mean scores of each aspect of each group has been obtained. The mean scores have been given in table 4.31(a) and 4.31(b) in which the tendency of university

Table 4.30: The Attitude Towards Different Aspects of the Programme

Different Aspects	N=20 Test were taken during October 1978				N=26 Tests were taken in November & December 1979			
	Pretest	Rank	Posttest	Rank	Pretest	Rank	Posttest	Rank
1 Philosophical Aspect	3.40	III	3.58	IV	3.85	III	4.02	VI
2 Psychological Aspect	3.07	VII	3.60	III	3.69	V	4.15	III
3 Administrative Aspect	3.35	IV	3.49	V	3.58	VI	3.92	VII
4 Problems of Higher Education Aspect	3.18	V	3.33	VII	3.38	VII	4.12	IV
5 Methods of Teaching Aspect	3.43	II	3.80	I	3.89	II	4.25	I
6 Evaluation Aspect	3.48	I	3.63	II	4.02	I	4.23	II
7 Qualitative Aspect	3.11	VI	3.40	VI	3.72	IV	4.10	V
8 Coefficient of Correlation Between Pre-test and Post-test	$\rho = .57*$				$\rho = .50*$			

* It indicates that correlation is not significant.

teachers' attitude has been shown. The three different groups have been placed separately in the same table.

Similarly, table 4.30 consist of pre-tests and post-tests mean scores with the seven aspects.

In the table 4.30 the mean scores of each item of each test have been given. These scores vary from 1 to 5.

The table reveals certain important similarities in the ranking of three important aspects of the course. The aspects are Methods of Teaching, Evaluation and Psychological Aspects. The ranks were given as I, II and IIIrd respectively by two different groups who were administered the attitude scale as pre and post tests in the years Oct.1978 and Nov.1979 at two different occasions. In these two years, the groups were different but their ranking on the above mentioned items coincided totally. It is also significant to note that the very same attitude scale was administered to a different sample which underwent a preservice course and inservice course at a different period of time. The table 4.31(a) & (b) which shows the ranking of these two groups also reveals the similarity of preferences for the items methods of teaching, evaluation and psychological aspects. On the basis of this ranking of these four groups we can safely assume that these aspects of the course seem to be most preferred. It is also worth mentionning that these two groups were (1978-1979) unaware of the significance of the course as seen by their not marking these items as the first, second and third ranks. The change in the

ranking pattern may be attributed to the input of the training which developed an awareness in them, as is reflected in their ranking.

The co-efficient of correlation (ρ) between pre-test and post-test were computed which are not significant at all. It indicates that there is no similarity in ranking by pre-test and post-tests in both groups.

In the table 4.31(a) the mean scores of each item of each group have been given. These scores vary from 1 to 5 as explained earlier also.

The analysis of the data reveals that the mean scores of the pre-service group is higher than the other two groups on all aspects of the programme. Similarly, the mean scores of the inservice group is higher than untrained group. Further analysis reveals that the highest scores belong to methods of teaching aspect with respect to P.Group and I.Group, while with respect to U.Group highest score belongs to administrative aspect. If the table is carefully examined then emphasis in attitude towards the aspects differ among the trained (P.Group and I.Group) and the Untrained groups. Hence, instead of going for simple description on the basis of ranks the investigator computed coefficient of correlation for the three combinations of groups (table 4.31(b)).

Table 4.31(a):   Attitude of the Participants Towards
Different Aspects of the Programme

	Different Aspects	P.Group		I.Group		U.Group	
		Mean Score	Rank	Mean Score	Rank	Mean Score	Rank
1	Philosophical Aspect	4.03	IV	3.90	IV	3.00	VII
2	Psychological Aspect	4.10	III	3.90	III	3.30	V
3	Administrative Aspect	4.00	V	3.73	VI	3.40	I
4	Problems of Higher Education Aspect	3.80	VII	3.70	VII	3.34	IV
5	Methods of Teaching Aspect	4.30	I	4.10	I	3.35	III
6	Evaluation Aspect	4.20	II	4.00	II	3.36	II
7	Qualitative Aspect	3.90	VI	3.80	V	3.10	VI

Table 4.31(b):   The Coefficient of Correlation (ρ)
Between the Groups

1	Coefficient of Correlation Between P.Group and I.Group	$\rho = .96$	Signi. at .01 level
2	Coefficient of Correlation Between P.Group and U.Group	$\rho = .25$	Not significant
3	Coefficient of Correlation Between I.Group and U.Group	$\rho = .07$	Not significant

The coefficient of correlation (ρ =.96) between
P.Group and I.Group was found to be very high and significant,
while between P.Group and U.Group it was .25 and I.Group and
U.Group it was .07. The latter two correlations were found to
be insignificant. It means, the formation of attitude towards
different aspects differ between trained and untrained groups.
The trained groups have shown highest favourable attitude towards
methods of teaching, while untrained towards administrative
aspect. As a result of undergoing training, trained groups have
an inclination towards teaching and learning process while on
the basis of their experiences, the untrained have thought that
this training would be more fruitful to impart instruction on
an administration and examination.

Percentage of Participants' Attitude

The attitude scale was administered to a sample of 167
teachers of different groups. There were 56 respondents in the
preservice group who gave their responses to the attitude scale.
Similarly, 89 respondents of the inservice group gave their
responses and the 22 respondents belonged to the untrained
group.

On the five point scale the reference point for the
favourable attitude was a score of 108. (P.99.)

Table 4.32: Percentage of Participants' Attitude

	Different Groups		Favourable	Unfavourable
			(Figures are in Percentages)	
1	Preservice Group	N_1=56	100	-
2	Inservice Group	N_2=89	97	3
3	Untrained Group	N_3=22	68	32

The analysis shows that in the P.Group 100 percent participants have expressed favourable attitude whereas in I.Group, 97 percent participants have shown their favourable attitude towards orientation programme. The 68 percent of the untrained group people have a favourable attitude towards the orientation programme.

FIG. 1   ATTITUDE OF TEACHERS OF UNIVERSITY

F
100%

P. GROUP

F
97%

U.F. 3%

I. GROUP

U.F.
32%

F
68%

U. GROUP

F   FAVOURABLE

U.F.   UNFAVOURABLE

183
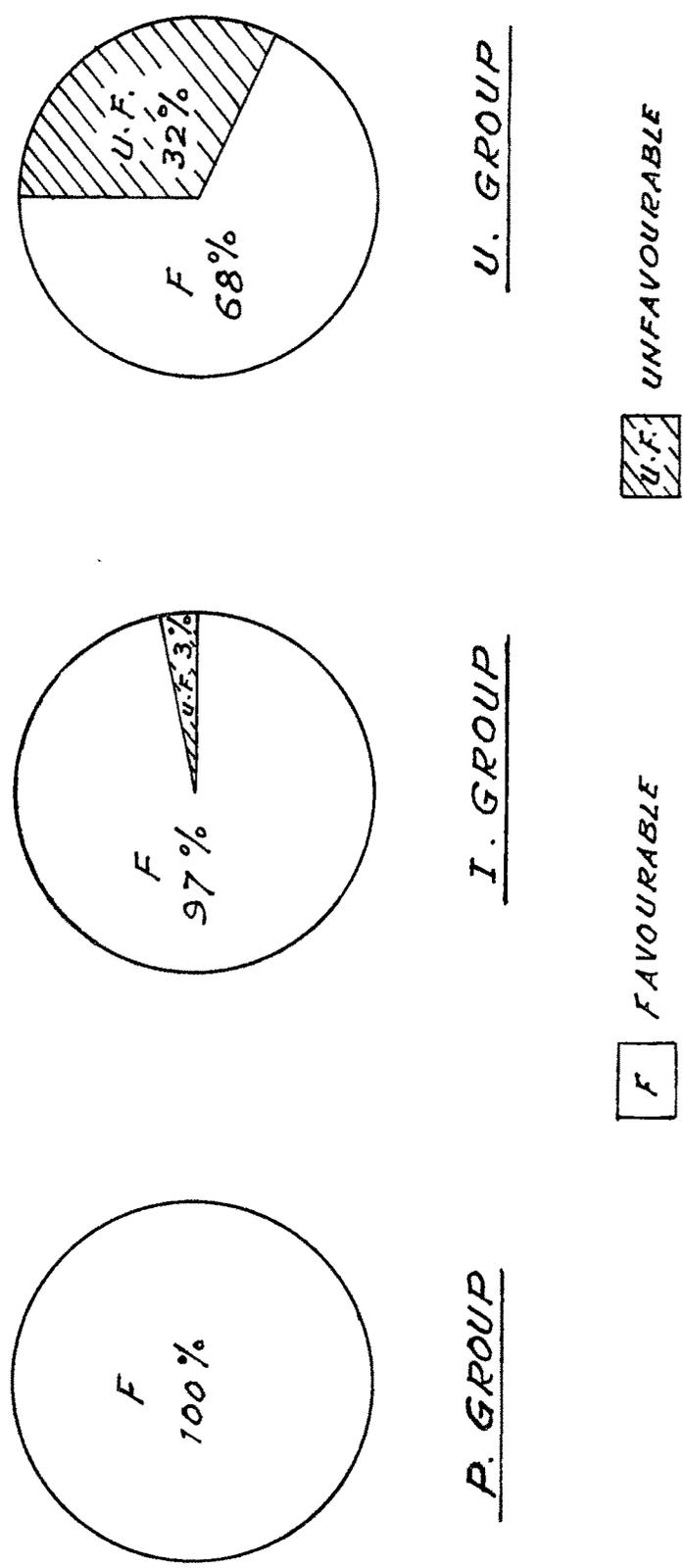
A PROPOSED CURRICULUM OF THE ORIENTATION PROGRAMME

Curriculum, in fact, is an organized plan of course outline which includes objectives of the course, learning experiences to be used for the achievement of these objectives, and evaluation thereof.

Curriculum is an instrument to satisfy the demands of the learner and the society which also depends upon the ability of the teacher who provides the learning experiences. Since both these factors of curriculum are human, it is dynamic in nature and the curriculum cannot remain static and rigid. There is a constant need to revise, reconsider and reframe the curriculum so as to make it optimum result-oriented. The curriculum improvement is sought by teachers, administrators, scholars and the community time and again. Their common goal is the enrichment of the courses.

According to the modern concept, the course of study is a written resource guide to the curriculum which incorporates suggestions of the teachers regarding the objectives of study, content, learning experienced involved and the means of evaluation.

Various factors influence the formulation of curriculum, such as the objectives of education, scientific understanding of culture, phenomenon of learning, and nature of the discipline.

The development of curriculum can be studied in terms of

three dimensions: (i) Curriculum Planning, (ii) Curriculum

Implementation and (iii) Curriculum Evaluation.

The dimension of curriculum planning involves fundamental
questions regarding the objectives of the educational institutions
as well as of specific courses, contents and learning experiences.

The most significant aspect of the task of teaching
consists of mental preparation of what to teach, how to teach
and how to assess what has been taught.

The art of teaching is being fast transformed into the
science of teaching with the rise of empiricism in pedagogy and
educational technology. Empirical inquiry has necessitated a
scientific approach to the problem solving in the teaching and
learning process.

Today, in order to be an effective teacher and a successful
learner, the new and scientifically tested concepts may be used by
the teacher and the students, and those concepts which have yet
to be used in teaching appear to have some potential for
application in teaching, should be so crystallized as to make
them testable through empirical inquiry.

One of the important function of the educationists, is
to develop education as a discipline. That function is to plan
a curriculum in a systematic way. The bases of the curriculum have
to be sought and selected logically and scientifically. They have
to be planned in a way that the important objectives of the subject

to be taught can be achieved in the best economic possible way
for the largest number of students. The curriculum planning
involves selecting appropriate objectives, using and designing
appropriate learning experiences, and assessing the achievements
of students in the light of these objectives.

Teaching of any discipline can be made more effective
if the teacher is aware of the students' motivation or the lack
of it is well informed, and has an understanding of his teaching
role. Certain personality characteristics have also been found to
contribute to the effectiveness in teaching. Furthermore, the
teachers' knowledge of what is learning and how best it can be
communicated to and acquired by the students, are the important
reasons for his effective teaching.

Whether the curriculum has been planned effectively, and
whether it has been used effectively, will be reflected in the
end results, through evaluation of learning. Evaluation is,
therefore, an integral part of the entire teaching process.

Evaluation involves knowing the need for evaluation, and
knowing the various methods and techniques to evaluate learning.
Knowledge of this aspect of evaluation is necessary to arrive at
the true measurement of the effectiveness of the curriculum and
its use.

In order to develop the skills of effective teaching and
evaluation in the teachers, there is a need to orient them in the
methodology of teaching and process of evaluation. One of the
objectives of the course under discussion, is to make the teachers

effective in their profession by enabling them to imbibe all the necessary skills.

The Existing Syllabi of Different Universities

Some of the Indian universities have taken an initiative to sponsor a training programme for university teachers. The Annamalai and Calicut Universities have already started the course of M.H.Ed. and M.C.T. respectively for the fresh post-graduate students. The universities of Madras, Madurai and Baroda have initiated inservice programme for their teachers.

These universities have prepared the syllabi for pre-service and in-service courses. These syllabi have been analysed and coordinated and are being discussed in Chapter I.

The Proposed Syllabus

The investigator has compiled the salient features of these syllabi with a view to evolve one common syllabus in both the pre-service and in-service courses of one academic year. Such a course, it is believed, may be helpful for the institutions which are preparing themselves to initiate such courses.

Experts' Opinion

A questionnaire was prepared and the questionnaire has been duly filled in by the experts, who have been teaching in the orientation programme for one year atleast and also those who are

teaching M.Ed. Class. 65 experts have given their responses to this questionnaire. Their responses are given in tables which follow.

Objectives of the Courses

Table 4.34: Objectives of the Course

(Figures are in Percentages)

	Objectives	Agree	Unde-cided	Dis-agree
1	To develop the competencies necessary for effective teaching in higher education.	100	–	–
2	To familiarise the trainees with the theoretical concepts related to higher education.	80	15	5
3	To familiarise the trainees with the developments and problems of higher education in India.	76	15	9
4	To familiarize the trainees with current trends in instruction and evaluation in higher education.	96	4	–
5	To give some knowledge of motivation to the trainees for self study as well as for guidance to their students to achieve excellence.	80	15	5
6	To develop effective study skills among the trainees so that they inculcate them in their students. The study habits, include speed and comprehension in reading, use of books and the library, and visual aids, taking notes, writing reports, organising revision and selection of best method of study.	96	4	–

The respondents have in majority agreed with the objectives of the syllabi as spelt out in the questionnaire. To achieve these objectives the entire course has been divided

into four theoretical papers and a practical course for the realization of the above six objectives. For each theoretical paper specific objectives have also been spelt out.

Paper I: Educational Philosophy and Sociology

The objectives of the course are :

1. To enable the trainees to understand the philosophical and social origins of educational theories and practices.

2. To enable the trainees to understand the role of education in effecting social, political, economic and cultural changes.

3. To make the Trainees aware to develop a philosophical and sociological outlook towards problems in higher education.

Table 4.35:   Course Outline of Educational Philosophy and Sociology

(Figures are in Percentages)

Topics	Agree	Unde-cided	Dis-Agree
Philosophical Topics			
1 Philosophy and Education	85	12	3
2 The concept, and theories aims, ideals, curriculum, disciplines, methods of teaching according to the different western schools of philosophy	69	12	19
3 Concept of knowledge according to the Indian philosophical thought	69	23	8
4 Educational implication of (2) and (3) of above in higher education	73	19	8

Table 4.35 continued.

Topics	Agree	Unde-cided	Dis-agree
Sociological Topics			
1 Scope and functions of Educational Sociology in Higher Education	92	–	8
2 Higher Education and Social Change	88	4	8
3 International Understanding Through Higher Education	77	8	15

The respondents have in majority agreed for the inclusion of these topics for the Syllabus of the Orientation Programme. However, some topics have been given higher weightage than the others. The relation of the Philosophy and Education; and the Sociological Topics in relation to Higher Education are considered useful to be included in the proposed syllabus.

Paper II: Educational Psychology

The objectives of the course are :

1. To make the trainees aware to deal more effectively with behavioural problems of college students.

2. To make the trainees aware to apply the principles of psychology to develop better instructional strategies.

3. To enable the trainees to understand the human behaviour and post adolescent behaviour.

4. To acquaint the trainees with basic laws and principles governing learning and instruction.

Table 4.36:   Course Outline of Educational Psychology
and Statistics

| Topics | Figures are in Percentages | | |
	Agree	Unde-cided	Dis-agree
PART A: Psychological Topics			
1 Need and scope of educational Psychology in Higher Education	92	4	4
2 Study of human behaviour with reference to post adolescence	100	–	–
3 Theories of learning	85	12	3
4 Psychology of adolescents and post adolescents	92	8	–
5 Motivation	85	8	7
6 Study of abnormal behaviour (frustration, conflicts, defence mechanism)	85	15	–
7 Guidance and Counselling	85	15	–
PART B: Statistics			
1 Frequency distribution	85	12	3
2 Central Tendency	85	12	3
3 Deviations	85	12	3
4 Graphs	81	15	4
5 Correlation (Ranks & Product Moment)	81	12	7
6 Normal probability curve	81	12	7

The second paper consists of psychological topics. The respondents have given preferences to the study of human behaviour and specially for post-adolescents. This importance of the knowledge of this topics is realized by cent percent respondents. Nearly 85 percent respondents have voted for the inclusion of the topics like: motivation, study of abnormal behaviour and guidance & counselling. The perusal of these topics makes it obvious that knowledge on these aspects would be useful for teachers of colleges and universities.

Paper III: Administration, Curriculum and Problems of Indian Higher Education

The objectives of the course are :

1. To acquaint the trainees with some crucial problems confronting Indian higher education and help to them to suggest possible solutions.

2. To develop in the trainees an historical perspective of the development of higher education in India.

3. To make the trainees aware of the administrative functioning in universities.

4. To acquaint the trainees with the basic theory and current practices in curriculum development in higher education.

5. To make the trainees aware of the role of teacher and students of higher education.

Table 4.37:   Course Outline of Administration, Curriculum
and Problems of Indian Higher Education

(Figures are in Percentages)

Topics	Agree	Unde-cided	Dis-agree
PART A: Administration			
1 University Governance	85	12	3
2 Relationship Between University and Government	73	23	4
3 Role of University Teachers in Governance	65	27	8
4 Students Participation	81	12	7
5 Administrative Structure of a University	92	4	4
PART B: Curriculum			
1 Importance of Curriculum Construction	85	8	7
2 Curriculum & Trends in a Particular Subject	81	15	4
3 Researches in the Area of Curriculum	85	12	3
PART C: Problems			
1 History of Higher Education in India	81	8	11
2 Government Agency U.G.C.	81	19	-
3 Problems of Higher Education	92	4	4

The knowledge of the university governance is also regarded important by the respondents. The understanding of the curriculum construction is also rated high. The awareness of the university problems is also regarded as one of the important component of such an orientation course by the experts.

Paper IV: Teaching Methods and Evaluation

The objectives of the course are :

1. To make the trainees aware of the modern practices
   in teaching.

2. To train the trainees in skills regarding the basic
   procedures and background knowledge needed for
   effective teaching.

3. To make the trainees aware of the new techniques
   of teaching.

4. To acquaint the trainees with the essential theory
   relating to educational evaluation and develop skills
   needed for developing tests to measure desired
   curricular outcomes.

Table 4.38:   Course Outline of Teaching Methods and
              Evaluation

(Figures are in Percentages)

Topics	Agree	Un-decided	Dis agree
PART A: Teaching Methods			
1 Preparation of Teaching Units	92	8	–
2 Objectives to be attained	100	–	–
3 Classroom Climate	96	4	–
4 Lecture Method	88	4	8
5 How to Conduct Demonstration and Practicals	100	–	–
6 Team Teaching	92	8	–
7 Ability Grouping Tehnique	69	31	–
8 Multiple Class Teaching	62	35	3

Table 4.38 continued.

	Topics	Agree	Unde-cided	Dis-agree
9	Self Study and Auto Instructional Method	88	12	-
10	Discussion Method	92	8	-
11	Large Group Teaching	85%	-	15
12	Micro and Macro Teaching	92%	8	-
13	Programmed Learning	85	12	3
14	Computarised Instructions	54	27	19
15	Use of Audio Visual Aids	96	4	-
16	Semester System	96	-	4
17	Tutorials	68	15	17

PART B: Evaluation

		Agree	Unde-cided	Dis-agree
1	Basic Concept of Evaluation	100	-	-
2	Educational Evaluation and Objectives	100	-	-
3	Relation Between Curriculum, Methods and Evaluation	96	4	-
4	Formative and Summative Approach of Evaluation	81	19	-
5	Test Theory and Standardization	77	15	8
6	Type of Tests	96	4	-
7	Internal Assessment	96	4	-
8	Question Bank	92	-	8
9	Grade System	96	-	4
10	Essay Type Paper	56	25	19

The experts feel that discussion on different
aspects of teaching and evaluation procedures should be
made available to the participants of the orientation course.
The responses, in percentage, speak of the importance attached
to each item on these two different aspects of teaching-
learning process.

Practical Work

The knowledge of practical work is as important as
theoretical knowledge just as it is essentially necessary to
actually manoeuvre a vehicle in order to learn driving along
with understanding of its theoretical aspect. Similarly, one
can not teach effectively unless one practices in the real
classroom situation. In the same manner, to evaluate one has
to be knowledgeable of the techniques involved in evaluation.
It is, therefore, necessary to give an opportunity to the
trainees to put into practice teaching of evaluation methods.

Objectives

1. To give practical opportunities to develop the
   skills for effective teaching.
2. To enable them to acquire the practical knowledge
   of evaluation.

The following table 4.39 shows the detail of
the practical work responded by the participants.

Table 4.39: Practical Work and Responses given
by the Participants

(Figures are in Percentages)

Topics of the Practical Work	Agree	Unde-cided	Dis-agree
1 To allow demonstration lectures by participants and their criticism by the subject expert and method expert.	96	–	–
2 To construct test items for question bank.	88	12	–
3 Construction of Educational Technology Frames	73	27	–
4 Micro-teaching session	70	12	18

The experts feel that there should also be practical work for the participants of the courses. The demonstration of teaching preparation of question papers or to develop the concept of Question Bank should constitute the practical work.

The percentages that are shown in the tables, are indicative of the respondents views regarding the utility of the subject matter which were collected on a three point scale viz., agree, undecided and disagree. The agreement on different items is shown with the help of the chart on the next page.

This is a proposed comprehensive syllabus, drawn for the pre-service and in-service courses to be conducted by different universities. The selection of items from this detailed syllabus will depend on the duration, type and facilities available at the disposal of the organizers of the course.

CHART: PROPOSED SYLLABUS AT A GLANCE

General Objectives	Paper I: Educational Philosophy & Sociology	Paper II: Educational Psychology	Paper III: Administration, Curriculum & Problems of Indian Higher Education	Paper IV: Teaching Methods & Evaluation	Practical Work
1. To develop the competencies necessary for effective teaching in higher education. 2. To familiarise the trainees with the theoretical concepts related to higher education. 3. To familiarise the trainees with the developmentments and problems of higher education in India.	Educl.Philosophy & 1. Philosophy & education 2. The concept and theories and aims ideals, curriculum, disciplines methods of teaching according to the different western schools of philosophy. 3. Concept of knowledge according to the Indian Philosophical thought 4. Education implications of (2) and (3) of above in higher education	Educl.Psychology 1. Need and scope of educational psychology in higher education 2. Study of human behaviour with reference to post-adolescence 3. Theories of learning 4. Psychology of adolescents and post-adolescents 5. Motivation 6. Study of abnormal behaviour 7. Guidance & Counselling	Administration 1. University governance 2. Relationship between university & government 3. Role of university teachers in governance 4. Student participation 5. Administrative structure of a university	Teaching Methods 1. Considerations in preparing teaching units 2. Objectives to be attained 3. Classroom climate 4. Lecture method 5. How to conduct demonstration of practices 6. Team teaching 7. Ability grouping teaching 8. Multiple class teaching 9. Self study and auto instructional method 10. Discussion method	1. To allow demonstration lectures by participants and their criticism by subject expert and method expert 2. To construct test items for Question Bank. 3. Construction of educational technology frames. 4. Micro-teaching session

Chart continued.

General Objectives	Paper I: Educational Philosophy & Sociology	Paper II: Educational Psychology	Paper III: Administration, Curriculum & Problems of Indian Higher Education	Paper IV: Teaching Methods & Evaluation	Practical Work
4. To familiarize the trainees with current trends in instruction and evaluation in higher education	**Sociology** 1. Scope and functions of educational sociology in higher education	**Statistics** 1. Frequency distribution	**Curriculum** 1. Importance of curriculum construction	11. Large group teaching 12. Micro & Macro teaching	
5. To give some knowledge of motivation to the trainees for self study as well as for guidance to their students to achieve excellence	2. Higher education and social change	2. Central tendency 3. Deviations 4. Graphs 5. Correlation (Rank & Product Moment)	2. Curriculum trends in a particular subject 3. Researches in the area of curriculum	13. Programmed learning 14. Computerised instructions 15. Use of audio-visual aids 16. Semester system 17. Tutorial	
6. To develop effective study skills among the trainees, so that they inculcate them in their students.	3. International understanding through higher education.	6. Normal probability curve	**Problems** 1. History of higher education in India	**Evaluation** 1. Basic concept of evaluation 2. Educational evaluation & objectives	
The study habits include speed and comprehension in reading, use of books and the Library and visual aids, selection of best method of study.			2. Government agency U.G.C. 3. Problems of higher education	3. Relation between curriculum methods & evaluation 4. Formative & summative approach of evaluation 5. Test theory & standardization 6. Types of tests 7. Internal assessment 8. Question Bank 9. Grade system 10. Essay type paper	

Opinions of the Programme Organizers

The analysis of the data collected with respect to
the views of participants, has been presented in the beginning
of this chapter. It will be worthwhile and justifiable if the
opinions of the organizers of the orientation programme are
also presented. Keeping all inquiries in mind, the
investigator had interviews with the heads of the departments,
conveners of the pre-service and inservice courses, official
incharge, and directors of the summer institutes or short term
courses at their respective places during the period of data
collection. The interview schedule was semi-structured.

Views Regarding the Development of the Orientation Programme

The orientation programme has two aspects: (i) regular
pre-service - in-service courses; (ii) U.G.C. sponsored
workshops, seminars or short term institutes.

(a) The question was: How did the programme evolve
in your department? The organizers or heads of the departments
of the concerned university responded that the departments of
education had taken the initiative in the submission of the
proposals to introduce pre-service or in-service programmes to
their respective universities. In most of the cases, the
Vice-Chancellor's support was forthcoming in this regard. In
instituting the certificate or the degree course, the
Syndicate of these universities also showed great enthusiasm,

and they supported for the new venture. The University
Grants Commission has also supported such programmes
academically.

(b) The Department of Education also showed keen
interest in organizing the methodology courses for college
lecturers with the help of the financial assistance of the
U.G.C. The organizers of the U.G.C. sponsored methodology
courses, whether in the form of short term institute of 21
days or 35 days, or workshop/seminars of the smaller duration,
took it as a challenge or a new venture. The lecturers of the
college/universies, who usually attended, initially had less
faith in the methodology courses. Therefore, to orient
experienced lecturers of the college in new techniques of
teaching and evaluation became a real task for the organizers
of the orientation courses. Most of the organizers of these
courses expressed the feeling that such orientation courses
do provide new dimensions to the lecturers and most of the
participants felt satisfied with such orientation programmes
at the end of courses. The organizers also felt that the UGC's
financial support has been a contributing factor in the
development of such orientation courses. The teachers became
aware of new trends in the field of teaching methods and
evaluation. The feeling of the organizers was that the
lecturers who attend U.G.C. sponsored orientation programme
do take it a privilege.

Resistance in Implementation of the Programme

The idea of a training programme for university
teachers was given by the Education Commission (1964-66) in
India. Taking a cue from this report, the Head of the Department
of Education, Faculty of Education & Psychology of M.S.University,
Baroda, sent a proposal for 'Certificate in Teaching Higher
Education' dated 5-2-1975, to the Vice-Chancellor of the
University, stating objectives of the programme along with
the plan.

The Syndicate of the University had accepted the above
mentioned proposal and a notice was circulated to all the deans
and heads of the departments, (vide the circular No.ADE/STD/II/
TRG/11 dated 18-6-1975).

This circular stated :

The University has decided to start
an In-service Course in Methodology of
Teaching for fresh and newly recruited
lecturers in the university services at
the CASE, in the Faculty of Education and
Psychology, Baroda.

In reaction to this circular, the deans, heads and
lecturers of the Arts, Science, and Commerce faculties and
also 'Baroda University Teachers' Association' (BUTA) had

shown their opposition towards this inservice programme.
The deans of the faculties of Science, Arts and Commerce sent
the following letters respectively to the Registrar, M.S.
University:

(i) No.FS/474 dated 12-7-1975. (ii) No.Nil dated
29-8-1975. (iii) No.FC/627 dated 19-8-1975, and 'BUTA'
(Baroda University Teachers' Association) the letter No.BUTA
.67(75) dated 4-9-1975 to the university authorities. Their
reactions were as follows :

(i) Though the need of a suitable in-service programme
for fresh teachers cannot be denied, it has to be
worked out in consultation with the different
faculties concerned.

(ii) The proposed 'CASE' course is not the appropriate
method of improved teaching at university level,
perhaps at primary and secondary stages of education
'tailor made' methodology may be important, but at
the graduate and postgraduate levels the style and
depth of knowledge of the individual lecturers are
of prime importance.

(iii) They wrote that the senior staff members in the
different departments are also competent to guide
the new entrants.

(iv) The 'CASE' does not have specialists in different
disciplines in order to cater to the needs of the
different faculty members.

(v) The teachers in the faculties are already over
burdened with teaching, internal evaluation,
research and extra-curricular activities and may
not have time to attend such courses.

(vi) If at all, a fresh entrant is to be given training,
it can best be done by weekly departmental seminars,
deputations to conferences and summer institutes
and research activities.

(vii) It is rather undesirable to impose such a course
for the confirmation of the new entrants. No
weightage should be given to the course for the
confirmation of the fresh lecturers.

The 'BUTA' (Baroda University Teachers Association)
has stated:

> .... the executive committee of the Baroda
> University Teachers' Association feels that before
> an inservice training course for the teachers
> was finalized,the teachers of this university
> ought to have been taken into confidence.

It further stated that:

> The executive committee of Baroda
> University Teachers' Association (BUTA)
> is of the opinion that a programme of training
> in Methodology for University Teachers is welcome.
> However, the training programme should be on
> a voluntary basis and no compulsion should
> ever be brought in. The training should be

in the form of a 'programme' and not
'a course of study' and should be
chalked out in consultation with the
departments. This would facilitate
any teacher to attend the programme.

The analysis of the above mentioned points out the three
aspects. First, all the heads and the deans unanimously
agreed to the need for an orientation programme for the
newly appointed teachers in principle. Secondly, they were
dissatisfied with the manner in which the decision regarding
such a course was taken without the involvement of the deans
of the faculties and heads of the departments. They also felt
that they should have been involved in the development of a
curriculum for such an orientation course as they would be able
to gauge the needs of their own faculties. Thirdly, the
resistance was on the ground that such a course ought not to be
made a condition for confirmation of service and no weightage
should be assigned to this course. It was also felt that senior
teachers need not attend this course. If at all such a course
was to be organized, they felt that it should be entirely on
a voluntary basis.

As these views were expressed by the different
faculties of the university and the professional body of
the teachers, and the syndicate passed a modified resolution,
by which it was accepted by the members of the Syndicate that
the orientation programme should be organized in the
following manner :

40% by the Department of Education.

40% by the Concerned Department.

20% by the concerned Faculty.

On the basis of this modified resolution, the deans
of the faculties of Arts, Science, Commerce and other faculties
and members of the Association withdrew their resistance. Now,
programme is being conducted with great success. The course,
however, is obligatory for newly appointed lecturers of the
University. It, therefore, has become a regular feature.

In other universities, the resistance of such type
was not there, because

     (i) the course was on voluntary basis, no compulsion
        was there.

    (ii) in two universities preservice programme was there,
        so reaction from teachers side was not there.

Cooperation from other Departments

The initial resistance did not last long. At present,
the teachers are taking interest in such programmes in many
of the universities. The experts in the field are cooperating
with the departments of education for giving their expertise
and lecture to the participants of the course. In M.S.University
of Baroda, the Deans, Heads and Professors are being invited by
the Department of Education during the programme for giving
their experiences and they cooperate to make the training
programme effective. In Calicut University, the experts of

different departments guide dissertation of the participants
of the course on an inter-disciplinary basis. Other departmental
Heads allow their participants to undertake practice teaching
in their departments. The subject experts supervise the lessons
of the candidates from the point of view of content validity.
In the Universities of Madras and Madurai, experts from other
departments are also invited.

Incentives

The organizers have suggested four types of incentives
to make the course acceptable.

(a) Financial assistance from UGC: The directors of
the summer institutes and short term institutes said that they
received financial assistance from the U.G.C. It has been
spent in terms of T.A., D.A. and on some reading material. This
financial assistance serves as a good incentive. Other agencies
like the department of education felt that separate financial
assistance should be given to them. The other incentives can be
in the form of increments, or T.A., D.A. allowances for those
who come to attend such course.

(b) Incentive could also be in the form of the
recognition given to the certificates or diplomas that are
awarded at the end of such courses, while considering the
participant for employment, or promotion.

(c) The organizers of the Department of Education, M.S.University felt that the participants of these courses should be allowed relaxation in their workload. They should be allowed to attend the courses during working hours. At present, the lecturers have to attend the evening courses after their regular classroom teaching. They felt tired after doing hard work. It is also straining for the organizers or the experts who come to initial discussions.

(d) There should be a provision to make payment to the experts who come to deliver lectures. There should also be a provision to invite experts from outside as well.

Usefulness of the Programme

The authorities such as Vice Chancellors or Head of the Departments felt that both types of the programmes, pre-service and in-service are very useful for the university/college teachers. The opinion of the above authorities towards in-service programme was more favourable than towards pre-service programme. They also suggested that for a few years the in-service programme should be continued and preference should be given to train the teachers. On probation, when a sufficient number of teachers are available for conducting such training programmes, the pre-service programme could be organized. The organizers expressed that the training programmes are new but these have been institutionalized. The participants cooperate in such programmes and there is always a good responses to such programmes, on the part of the participants.

Specific Difficulty Encountered by the Organizers

The organizers of the pre-service course have difficulties in organizing the internship or classroom teaching for their students, in the affiliated colleges or the university departments. The departments of education do not appoint content-matter specialists. The teachers of their departments guide the students with regard to methodology of teaching and for content guidance, they have to depend on the supervision of the teachers of different departments of the college or university. Most of the teachers of other departments are busy in their own teaching and research, and therefore, they do not get enough time to guide the students in their unit preparation, lesson-planning or writing of the dissertation. Such situations create problems for the organizers of the pre-service course.