CHAPTER SEVEN

THE PROGRAMMES AND THE PROFESSIONS

CHAPTER VII

THE PROGRAMMES

7.1 Introduction

The Home Science programmes differed from institution to institution. Some institutions had only undergraduate programmes, some both undergraduate and postgraduate, and others only post-graduate. They also differed in the duration of the programmes and requirement for admission. An analysis of the programmes, requirements for admission, types, preference, problems, curricula, trends, enrolment, future plans are made here to find out the existing situation.

7.2 The Undergraduate Programmes

Throughout the country the undergraduate programmes were available in 70 institutions. Out of these only 59 responded. The undergraduate programmes in these institutions differed in the requirement of the admission; years and types of programme. They also differed for their capacity to admit students.

7.2.1 Duration and Admission Requirement

The duration of the programme at the undergraduate level varied from 2 to 4 years and the admission requirement from 10 to 12 years schooling. The percentage of two and four years programme was much less than the 3 years programme (Table 28). The percentage of the 3 years

Table 28 : The duration of the undergraduate programmes and the schooling required

Sr. No.	Duration of programmes	Types of institutions			Total
		I	D	E	
	N =	9	8	42	59
1	Two years	22.2	12.5	-	5.1
2	Three years	55.3	50.9	100.0	86.4
3	Four years	22.2	37.5	-	8.6
	Total	15.3	13.6	71.1	100.0
	Schooling for admission				
1	Ten years	-	12.5	-	1.7
2	Eleven years	66.6	62.5	31.0	40.7
3	Twelve years	33.3	25.0	69.0	52.6
	Total	15.3	13.6	71.1	100.0

I = Independent D = Dependent E = Existent

programme after the 12 years schooling was highest. The findings revealed that there was no relationship between the number of years schooling to the number of years programme. The percentage was highest with twelve years schooling for

3 years programme.

This difference might be due to the pattern of the education followed in the state and the university or could also be due to the special feature of Home Science programmes. These might have been adjusted according to the Home Science requirements though there seems to be very little justification for it.

7.2.2 Changing trends in Admission

The discipline being about four decade old it was expected that changes in the trend of admission should be noticed. The changing trend approbated by the institutions were : 'rapid increase in number', 'girls from middle class families increasing', 'girls from lower middle class, rural girls, boys, students from other disciplines' and 'girls from distant places'joining'. Nearly for all the factors a higher percentage in the 'I' and the 'D' type institutions consented to a change. The percentages for all the factors in the 'E' type institutions were much lower and ranged between 12 and 57 (Table 29). The most common factors in all the three types of institutions were : 'rapid increase in number', 'girls from middle class families increasing' and 'girls from distant places joining'. Besides the above, the percentages of the 'D' type institutions for 'rural girls joining' was much higher than the other two types. This

Table 29 : Changing trends in the undergraduate admissions

Sr. No.	Changing trends	Types of institutions			Total
		I	D	E	
	N =	9	8	42	59
1	Rapid increase in number	88.9	75.0	50.0	61.0
2	Girls from middle class families increasing	77.8	78.5	57.1	66.1
3	Girls from lower middle class families joining	44.5	25.0	-	32.2
4	Rural girls joining	11.1	62.5	11.9	18.6
5	Boys joining	-	25.5	-	3.4
6	Students from other disciplines joining	22.2	25.5	21.4	23.7
7	Girls from distant places joining	77.8	75.0	40.5	52.5

type also accepted 'boys joining' to which the other two types did not. A very low percentage in all the three types favoured 'students from other disciplines joining.'

A higher percentage in the 'I' and the 'D' type institutions agreeing to most of the factors could be that, these institutions were specifically meant for Home Science, therefore, greater changes must have been seen in these institutions. The three factors 'rapid increase in number',

girls from middle class families joining' and 'girls from distant places joining' by all the three types of institutions could be due to the changing trend in the women's education itself. The attitude towards girls' education was being liberalised and thus this change may have been viewed. More and more girls were going for higher education, social changes, priorities to women's education and awareness for better standard of living might also have caused this change. The changes in values for girl's education could be an additional contribution in the trend of sending girls out in case of need to a place where hostel facilities were available. Hence, 'girls from distant places joining' might have also been seen. The parents who could afford must have availed the facilities of the hostel. This might have been more so for Home Science education as approximately all the institutions having Home Science programmes had hostel facilities. Moreover, parents who valued Home Science education more than Arts and Science may have availed this opportunity. The accordance of the 'D' type institutions for 'rural girls joining' manifest the typical characteristic of Agricultural Universities where the philosophy of the institutions itself was different from that of others. Their philosophy being the improvement in rural life through the ' development of agriculture, it was obvious that rural girls would be encouraged through special priviledges of admission and scholarships. The same type of institutions

also depicted 'boys joining', though the percentage was very low but it presented a greater acceptance of the Home Science as a discipline for all. Another factor consented by a very low percentage was 'students from other disciplines joining', although this was one of the most important one. It could be that the qualifications of joining from allied disciplines might not have been considered so far by the universities.

7.2.3 Types of Programmes

There were two types of undergraduate programmes which were available in the different universities. These were B.Sc. Home Science general and specialisation. It was interesting to observe that both the programmes were available in different durations. These seemed to be related to the philosophy of the institution, therefore they existed in the different types of institutions.

Both the types of programmes of different durations existed only in the 'I' and the 'D' type of institutions. Amongst the 'I' type of institutions 2 and 3 years general Home Science and 3 and 4 years specialization courses existed, whereas in the 'D' type of institutions the general Home Science programme of 2,3 and 4 years and a specialisation of 4 years duration existed (Table 30).

Table 30 : The Different types of undergraduate programmes

Sr. No.	Type of Programme	Types of institutions			Total
		I	D	E	
	N =	9	8	42	59
i	Home Science general				
	2 years	22.2	12.5	-	5.0
	3 years	55.6	50.0	100.0	81.4
	4 years	-	37.5	-	3.4
2	Home Science Specialisation/Honours 3 years	22.2*	-	-	-
	4 years	22.2	50.0[1]	-	10.2

* The institutions mentioned here are also included in the 3 year's Home Science (General) programme

1 The institutions have different types of programmes 3,4 and five years adjusted according to the need.

However, the maximum percentage in the 'I' type of institutions had a 3 years and in the 'D' type, 4 years programme. The 'E' type had only general Home Science programmes of a 3 years duration.

Availability of both the types of programmes of different duration in the 'I' and the 'D' types of institutions could be said to be related to the type of philosophy of the institution. It could also be according to the number of years in which the programme was to be adjusted. Twenty two per cent institutions had a 3 years B.Sc. general Home

Science programme but they also had a 3 years Honours programme. This must have been therefore, adjusted according to the need and philosophy of the programme. A four years specialisation in the 'D' type institutions could be due to the 4 years degree programme pattern being followed in the Agricultural Universities.

7.2.4 Preferences for Programmes

The different types of undergraduate programmes which existed in 6he different types of institutions were 'general', 'honours' and 'specialisation'. Amongst the three types of institutions the honours existed only in the 'I' and the 'D' type of institutions while in the 'E' type only the general programme existed. The percentages of the 'E' 'D' and the 'E' type of institutions for B.Sc. general Home Science programmes were 56, 50 and 100 respectively (Table 30). The 'I' type institutions had both the 3, and 4 years Honours and specialisation programme whereas 50 per cent of the 'D' type institutions had Honours/specialisation in a 4 years programme and B.Sc. in 3 years. The higher percentage of institutions with a three years B.Sc. general Home Science programme could be because a three years degree programme existed in greater number of universities in the country. It could also be possible that within a period of three years it might have been difficult to start a

vide

programme of specialisation, as that would have left very little scope for the general programme. Further, the programmes started in the early years were three years programme and this may have given a fillip to the programme. A specialised programme could also have proved costlier for the institutions as it would have involved the appointment of specialised staff. Even lack of qualified staff could be a preventing factor. Lack of Mastefs programme in all the areas could be another preventing factor due to the shortage of qualified staff. It could just be that Honours specialisation was possible only to develop in those institutions which were equipped for the purpose and not in those where existing facilities were made use of.

However, 50 per cent institutions in the 'D' type and 44 per cent in the 'I' type with Honours/specialised programmes presented a view that the developing institutions of Agricultural Universities were establishing specialised programmes. It may also be due to its being helped by specialists of other sister institutions and departments in developing and carrying it out. This is also evident when seen that programmes could not be developed in the 'I' type even though the 'I' type institutions started earlier and none of the 'E' type could develop it.

Many a time it happens that a particulaf types of programme is developed ńnot because of demand, benefits and preferences but because there was no other alternative and the best under the circumstance available could only be developed. The same could be true in the development of Home Science programmes. As such, it was deemed important to find out the merits and demerits of the different types of programmes as viewed by the administrators. This would give an understanding of the situation of the existing programmes and also what was beneficial and in demand. Therefore, the respondents were given an opportunity to give their preference along with the reasons.

When the respondents were given a chance to express their preferences a higher percentage of the group preferred honours/specialisation to general - the percentages being 56, 44 respectively (Table 31). In all the three types of institutions the percentage of preference for specialisation was above 50. The preference for a specialised programme by a higher percent of respondents show that nearly all the honours/specialisation programmes were four years programme. Adding one year to the total programme meant an increase of 25 per cent of the subject matter in the area selected.

Table 31 : Preferences for the undergraduate programmes

Sr.No.	Reasons for B.Sc.(General)	Types of institutions I	D	E	Total
		N = 10	10	42	62
1	Scope to understand all areas of M.Sc.	20.0	30.0	38.1	33.9
2	Scope to understand allied disciplines	20.0	30.0	31.0	29.0
3	It trains for many jobs at a time	30.0	30.0	33.3	32.3
4	Students decide better for specialization at M.Sc.	40.0	30.0	31.0	32.3
5	Gives better job opportunity	20.0	30.0	16.7	19.4
	Reasons for B.Sc.(Hons/Specialization)				
1	Strengthens knowledge of selected areas	60.0	70.0	50.0	54.8
2	Develops interest earlier in specialization	50.0	60.0	45.2	48.3
3	Prepare better for jobs	60.0	70.0	47.6	53.2
4	Specialists more in demands	60.0	60.0	28.6	38.7
5	Better understanding of allied field of specialisation	30.0	50.0	33.3	35.4

I = Independent D = Dependent E = Existent

It could also be possible that a specialised programme would indicate better direction to the Masters programme because of the additional 25 per cent subject matter. This would enhance the understanding of the field and therefore, it would be a better preparation for higher education. A choice after the basic knowledge of the subject matter would also direct the students towards the area of interest earlier and would promote the understanding.

The highest percentage in all the three typed of institutions preferred specialisation because it 'strengthens knowledge of the area selected'. The percentage of the three types of institutions the 'I', the 'D' and the 'E' were 60, 70 and 50 respectively. Another equally favoured reason was 'prepares better for job where the percentages were similar except 2 per cent less for the 'E' type. The least accorded reason for the 'I' and the 'D' type institutions was 'better understanding of the allied field of specialisation while the 'E' type expressed least that 'the specialists were more in demand'. However, 50 per cent and above in the 'I' and the 'D' type had consented to all the reasons and in the 'E' type the percentage for the favour ranged between 29 and 50 (vide Table 31). The highest acceptance for the two reasons 'strengthens knowledge of the area selected' and 'prepares better for job' could be due to its being related

to the objectives of higher education. Since, the education needed to equip the students better with the knowledge which could ultimately be for the preparation of job. The 'I' and the 'D' type institutions may have replied to the reasons 'better understanding of the allied field of specialisation' less, because of the dependence of the subject on the allied discipline. The 'E' type institution agreed least that the 'specialists were more in demand' could be because where there were no specialisation, specialists may not have been in demand. The Home Scientists besides teaching have very few avenues open for job. The 'I' and the 'D' type may have agreed to all the reasons of the experiences which would differ from those of the 'E' type of institutions.

The accordance for the general Home Science in all the three types of institutions was vefy low. It ranged 20 to 40 per cent for the 'I' type and 7 to 38 for the 'E' type. The most expressed reason for the 'I' type was 'students decide better for specialisation at M.Sc. while the 'E' type responded most to the 'scope to understand all areas of Home Science'. The least accorded reason for the 'E' type was 'gives better job opportunity'. The percentages being very low for all the reasons in all the

reasons in all the three types of institutions could be that of a lower percentage preferred B.Sc. General Home Science programme. The 'I' type of institution accepted that 'students decide better for specialisation at M.Sc.' could be because these institutions were basically established for Home Science education and were committed for the development of higher education. Whereas, a higher percentage of the 'E' type of institutions agreed for the 'Scope to understand all areas of Home Science' could be due to the concern of this type of institution more in strengthening the undergraduate programmes. It could also be that when there would be no choice all the subjects would have equal weightage and therefore should have a broader base. The institutions of the 'E' type responding least 'gives better job opportunity' in General Home Science had also agreed least to the same reason in Home Science specialisation. It can therefore be concluded that there must be need for higher programmes or there must be lack of job opportunities for the Home Scientists. In group 'D' there was an equal favour for all the factors but the percentage was low. This could be so due to a higher number of institutions of this type being in Agricultural Universities and therefore there may be demand for specialisation. These universities also had the plans

for higher programmes at the earliest thus their preference must have been according to the plans.

The findings divulged that preference was in no way related to the type of institutions because in all types a higher percentage preferred specialisation.

There being specialised programme an attempt was made to find out the future plans of the institutions regarding specialisations. The findings disclosed that very few percentage in each type had any future plans. Twenty two percentage in the 'I' and 13 per cent in the 'D' type institutions expressed that they would start specialisation in the areas they did not have so far (Table 32). Twenty five

Table 32 : Future plans for Home Science specialisation

Sr.No.	Specialisations	Types of institutions			Total
		I	D	E	59
	N =	9	8	42	
1	New programmes recently started	-	-	10.0	6.8
2	When students reach the year of specialisation	-	25.0	-	3.4
3	To start in the areas it has not started	22.2	12.5	-	5.1
4	To start new programmes	-	-	11.9	8.5

I = Independent D = Dependent E = Existent

per cent in the 'D' type expressed that they would begin specialisation when the students would reach the final year. Ten per cent in the 'E' type had recently commenced new programmes of bifercating for the specialisation from the first year and 12 per cent were planning soon to begin this type of programme. Further, the number of institutions for future plans of specialisation was low for the poor number in the total programmes itself. Various problems involved in the initiation of the specialised programme-staff, equipment and finance could also have been the restricting issue. Only the 'I' type and the 'D' type presented some plans for future change but these were related to those which were already operating specialisation in the under-graduate programmes. These institutions due to certain reasons could not offer specialised programmes in all the areas hence they had a plan to start in the areas which were still uninitiated. A new trend was observed to have taken place since 1974 where the students were given an opportunity to select the area of interest from the very first year. As this was a new venture in the university of Madras some curriculum planners of the universities in the neighbouring states also had plans to start similar programme. The curriculum planners felt that the change was according to the needs.

The students had a choice to opt for the specialisation of their interest which would help them undertake the type of job they were interested in. In comparison to the thinking of the organisers of this programme, others felt that introduction of specialisation without exposing the students to the total programme and giving them an opportunity for different areas of specialisation the selection would be mearly by guess and not by the interest shown. This could hamper the student's understanding of the concept for the subject. However, the findings indicated that the altered trend could be due to the specialists in demand or lack of preparation for the types of job available. Hence, a lead was taken to introduce specialisation in the existing scheme.

A feeling existed amongst the Home Scientists that certain programmes had built in specialisation in the programme itself and hence had the job potentialities though there was no scope for specialisation. Therefore, in the questionnaire a scope was provided for the expression of built in programmes. Amongst the 'I' and the 'D' type institutions 44 and 50 per cent respectively agreed that their curricula provided built in programmes (Table 33). The percentage was low for the 'E' type. These figures revealed that the percentage which had accepted the built in programmes were nearly the same expressing specialisation.

Table 33 : The built-in professional programmes in the undergraduate curriculum

Sr.No.	Year of the progress	Types of institutions			Total
		I	D	E	59
		N = 9	8	42	
1	Fourth year	22.2	50.0	-	10.2
2	Third year	22.2	-	-	3.4
3	Second year	-	-	-	-
4	First year	-	-	9.5	6.8
	Total	44.4	50.0	9.5	20.3

May be, those who had specialisation responded to the built in programme.

7.2.5 Trends in Curricula

The Home Science education at higher level caters basically to a personal development of the individual satisfying family living and professional training. The education therefore aims in developing a well rounded programme suitable to meet the above requirements. The curricula, hence includes various basic sciences and humanities, and also provides enough scope for the study of all the areas of Home Science. The weightage given to these differ from one university to the other according to their

own philosophies. These curricula were studied through the weightage provided to the different sciences, humanities and Home Science.

The findings revealed that the weightage given to science ranged from 9 to 41 per cent and to humanities from Nil to 38 per cent (Table 34). It also disclosed that about 33 per cent programmes provided above 30 per cent weightage to sciences whereas in humanities it was only 13 per cent, and in none weightage was above 40 per cent (Table 34A). In comparison to Sciences, humanities was given a lower weightage in most of the programme. It was 30 per cent to humanities in 87 per cent programmes. The weightage given to Agriculture was much less in comparison to Sciences and humanities. Seventy three per cent programmes gave no weightage to agriculture whereas 27 per cent provided a weightage less than 10 per cent.

The weightage given to Home Science course ranged between 30 to 70 per cent (Table 34B). In 40 per cent programmes the weightage given to Home Science was 50 per cent and below and in 47 per cent it was above 61 per cent. A scrutiny of the specialisation revealed (vide Table 34) that 33.8 per cent programmes gave no weightage to extension education. In about 33 per cent programmes higher weightage was given either to Child Development or Foods and Nutrition.

Table 34 : A comparison of the weightage allotted to different disciplines in Home Science in different universities

Sr. No.	University	Weightage									Total	Grand Total
		Allied disciplines			Home Science							
		Sci.	Hum.	Agri	CD	CT	FN	HM	EE	Spl/Hons		
1	Agra	26.1	13.1	-	17.4	8.7	8.7	8.7	17.4	-	60.9	100.0
2	Allahabad(Home Economics)	13.8	6.9	-	13.8	6.9	10.3	13.8	13.8	-	79.3	100.0
3	Allahabad(Home Science)	37.1	-	-	11.4	11.4	25.7	14.4	-	-	62.9	100.0
4	Baroda	15.4	16.9	-	10.8	10.8	10.8	10.8	10.8	16.9	67.6	100.0
5	Bombay	20.5	14.5	-	14.5	19.3	19.3	12.1	-	-	65.0	100.0
6	Calcutta	40.0	30.0	-	15.0	3.8	7.5	3.8	-	-	30.0	100.0
7	Chandigarh	33.3	13.9	-	8.4	11.1	11.1	11.1	11.1	-	52.8	100.0
8	Jabalpur	19.0	37.9	-	8.4	10.5	10.5	8.4	5.3	-	43.1	100.0
9	Madras	32.1	28.6	-	7.1	7.1	10.7	7.1	-	7.1 (Optional)	32.1	100.0
10	Nagpur	41.9	21.8	-	7.7	9.0	10.3	10.3	-	-	37.2	100.0
11	S.V.University	18.3	35.2	-	11.7	10.0	10.0	10.0	5.0	-	46.7	100.0
12	Univ. of Agri.Sci. Bangalore	26.1	12.7	6.7	11.2	8.2	14.2	11.9	9.0	-	54.5	100.0
13	APAU Hyderabad	18.5	15.4	1.0	14.8	14.8	14.8	14.8	5.6	-	64.8	100.0
14	PAU, Ludhiana	29.6	19.9	8.7	8.7	8.7	9.2	8.7	6.3	-	41.7	100.0
15	UPPU Pantnagar	8.6	4.8	4.8	12.0	16.8	17.2	19.1	6.2	-	71.3	100.0

Table 34A : Summary of the weightage to different disciplines in Home Science (Table 34)

Range in % for weightage	Percentage of programmes		
	Science	Humanities	Agriculture
No weightage	-	6.6	73.3
Below 10	6.6	13.3	26.7
11 to 20	33.3	46.7	-
21 to 30	26.7	20.0	-
31 to 40	26.7	13.3	-
41 and above	6.6	-	-

Table 34B : Summary of weightage to Home Science in the different programmes (Table 34)

Range in % for weightage	Percentage of programmes
	Home Science
Below 50	40.0
51 to 60	13.3
61 to 70	33.3
71 and above	13.3

The reasons for higher weightage to sciences in comparison to the humanities could be explained that Home Science is being treated more as a science. The humanities were mostly overlooked. Wherever a higher weightage was provided to Humanities it was often more due to the languages included. Home Science draws its principles from both sciences and humanities therefore it was expected that both sciences and humanities will be provided equal importance.

The curricula exposed a new trend in agricultural universities where agriculture was provided a place in the curricula. It is awkward to observe that Home Science was begun for the first time though in the Agricultural Institute, Allahabad but then agriculture subjects were not provided in the programme. It is only later on that in the Home Science programmes of Agricultural Universities Home Science was provided courses in Agriculture.

The difference in weightage even to the Home Science subjects which is observed may be due to the philosophy of the programmes or that of the planners. However, higher weightage in more number of programmes revealed that Home Science did get greater weightage. One third of the programmes that provided no courses to the extension education programmes could be that in the early years of

Home Science education at the higher level, only four areas were considered by the Home Science Association of India. Home Science Extension Education developed much later, wherever it was provided it was merved with other areas. In comparison to other areas of specialisation a greater emphasis to Foods and Nutrition and Child Development could be due to the understanding of the subject with the allied subjects e.g. Foods and Nutrition with Chemistry, Biochemistry, and Child Development with Psychology and Sociology. Governmental plans providing emphasis on nutrition and child welfare programmes may also be supporting the higher weightage to Food and Nutrition and Child Development.

Planning and Evaluation :

The method of planning and evaluating the curricula followed in different institutions conducted a relationship between the two. It was noticed that a larger number of programmes were planned in all the three types of institutions the 'I', the 'D' and the 'E' by the staff concerned and external members (Table 35). It was also observed that the same percentage of the institutions agreed of its being evaluated when a need was felt by the staff.

Table 35 : Planning and evaluation of the programmes

Sr.No.	Methods	Types of institutions			Total
		I	D	E	
	N =	9	8	42	59
	Programme planning				
1	Your own staff plans	-	37.5	-	5.1
2	Both your staff and external members	100.0	87.5	88.1	89.8
3	The external members	-	-	11.9	8.1
	Programme evaluation				
1	Once a while	-	37.5	-	5.1
2	When need felt by the staff	100.0	87.5	88.1	89.8
3	When asked for	-	-	7.1	5.1

I = Independent D = Dependent E = Existent

The findings revealed a relationship between the two - planning and evaluation. It could be that when the need was being felt steps for the required changes were taken. It could also be that this was the pattern of the university and a majority of the institutions followed it.

7.2.6 Enrolment and Degrees

Students occupy the most important position in the educational plans. It is for their growth and development that institutions are maintained instructions and administrations are provided and the resources are utilized.

All these are directed towards the students growth for the behaviour planned. These factors affect the number enrolled becaused these need to be planned proportionately.

An analysis of the students enrolment in the different types of institutions for the undergraduate programmes revealed that there was a continuous rise in the enrolment of all the three types of institutions. In the 'I' type the rise in the percentages of growth ranged between 1 to 15, in the 'D' type 3 to 14, and in the 'E' type 0.1 to 11 (Table 36).

Table 36 : Students enrolled for the undergraduate programmes (1942-75)

Period	Types of institutions						Total[4] 55	
	I=10		D=8		E=38			
	Inst[1] N	St[2] N	Inst[1] N	St[2] N	Inst[1] N	St N	Inst N	St N
1942-45	1	10 (0.1)	-	-	2	50 (0.3)	3	60 (0.2)
46-49	2	58 (0.7)	-	-	2	73 (0.4)	3	131 (0.4)
50-53	3	181 (2.1)	1	173 (3.7)	2	112 (0.7)	5	466 (1.6)
54-57	3	235 (2.7)	1	289 (6.2)	7	447 (2.7)	10	971 (3.3)
58-61	4	499 (5.7)	3	481 (10.3)	19	1823 (11.2)	25	2803 (9.5)
62-65	4	149 (17.1)	4	825 (17.6)	21	3233 (19.9)	28	5549 (18.7)
66.69	9	2472 (28.4)	5	1126 (24.0)	31	4874 (30.0)	44	8472 (28.6)
70-73	9	3759 (43.2)	8	1497 (38.3)	38	5648 (34.7)	54	11204 (37.7)
Total	9	8705 (100.0)	8	4891 (100.0)	38	16260 (100.0)	54	29656 (100.0)

(continued)

(Table 36 continued)

1 The N shown for the institutions

2 The N shown for students number admitted the percentage is given in the paranthesis

3 As the admission number is only upto 1973 the total number of institutions also are upto 1973 in each type. In the 'I' type 1 and in the 'D' type 2 institutions being post-graduate departments are deleted.

4 This pattern will be followed in tables showing enrolment and degrees conferred.

In the 'I' and the 'D' type of institutions the rise in the percentages of growth was gradual and was highest during 1970 to 73. In the 'E' type the percentage of growth went lower during 1963-65 and 1970-73.

The basic nature of the growth curve is exponential (Table 36A, Figure 3); which means that the number of students enrolled went on increasing. This rate was found by fitting an equation $y = AB^x$. The growth rate for entrants to the B.Sc. programme was 48 per cent.

The higher growth of the 'I' and the 'D' type of institutions may be explained due to their being basically Home Science institutions. They might be increasing the seats for enrolment because of an increase in their facilities for the teaching of the subjects. It may also be

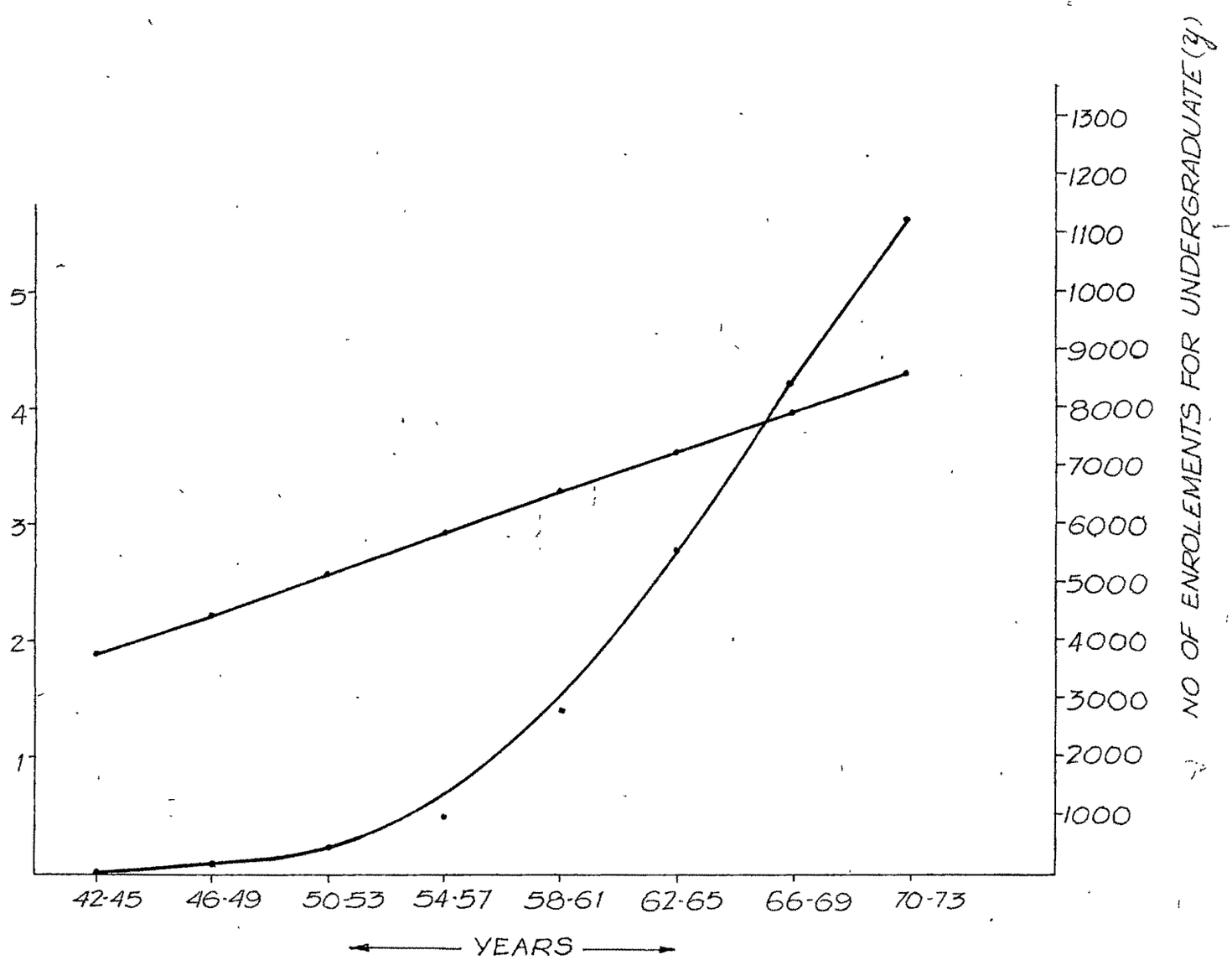
Table 36A : Growth rate of students enrolled for the undergraduate programmes

Year	Observed value	Estimated value (y')	Log y'
1942-45	60	78.7	1.90
1946-49	131	172.8	2.24
1950-53	466	378.9	2.58
1954-57	971	828.8	2.92
1958-61	2803	1822.0	3.26
1962-65	3549	3995.0	3.60
1966-69	8472	8760.0	3.94
1970-73	11204	19210.0	4.28

Growth rate = 48 %

due to the rising demands. A rise in the percentage of the 'D' type of institutions could also have been seen for similar reasons. Unfortunately the 'E' type could not have been provided with such facilities as provided to the 'I' and the 'D' type.

The degrees conferred for this programmes also revealed a rise in the percentage of degrees conferred in all the three types of institutions. In the 'I' type of institutions the rise in the percentages of growth ranged from 0.1 to 17, in the 'D' type 7 to 11 and the 'E' type 0.1 to 13 (Table 37). In the 'I' and the 'E' type of institutions the rise in the percentages of growth continuously increased whereas it was not so in the 'D' type. It went lower during 1966-69 in comparison to the



THE ENROLMENT FOR UNDERGRADUATE PROGRAMMES IN INDIA

Table 37 : Degrees conferred for the undergraduate programmes

Sr. No.	Period	Types of institutions							
		I=9		D=8		E=38		Total 55	
		Inst. N	St. N	Inst. N	St. N	Inst. N	St. N	Inst. N	St. N
1.	1942-45	1	8 (0.2)	-	-	2	8 (0.1)	3	16 (0.1)
2.	46-49	2	12 (0.3)	-	-	2	54 (0.5)	4	66 (0.4)
3.	50-53	3	18 (0.5)	1	-	2	89 (0.8)	6	107 (0.7)
4.	54-57	3	162 (4.2)	1	37 (1.8)	7	118 (1.1)	11	317 (1.9)
5.	58-61	4	215 (5.6)	3	173 (8.6)	19	529 (5.0)	26	917 (5.6)
6.	62-65	4	573 (14.9)	4	404 (20.0)	21	1864 (17.7)	29	2841 (17.3)
7.	66-69	9	1104 (28.7)	5	595 (29.4)	31	3255 (30.9)	35	4954 (30.2)
8.	70-73	9	1751 (45.6)	8	812 (40.2)	38	4628 (43.9)	55	7191 (43.8)
	Total	9	3843 (100.0)	8	2021 (100.0)	38	10545 (100.0)	55	16409 (100.0)

previous periods. The change was highest during 1962-65. In the 'E' type of institutions the highest percentage of growth was also during 1962-65.

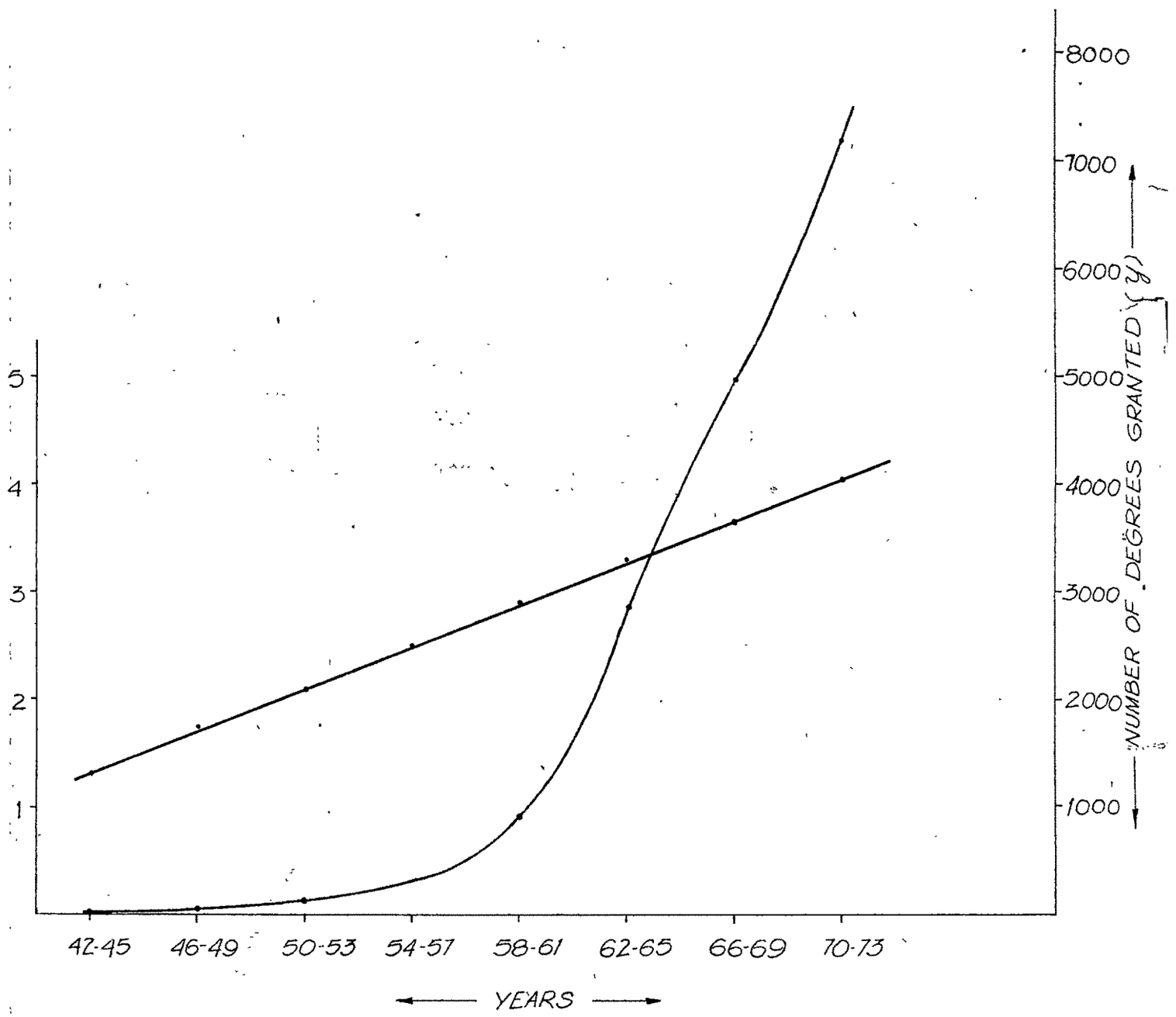
Table 37A : Growth rate of students conferred degrees for the undergraduate programmes

Year	Observed value	Estimated value (y')	Log y'
1942-45	16	21.31	1.33
1946-49	66	52.20	1.72
1950-53	107	127.8	2.11
1954-57	317	313.1	2.49
1958-61	917	766.8	2.88
1962-65	2841	1878.0	3.27
1966-69	4854	4599.0	3.66
1970-73	17191	1127.0	4.05

Growth rate = 56 per cent

The basic nature of the growth curve was exponential (Table 37A, Figure 4); which means that the number of students conferred degree went on increasing. This growth rate was found by fitting an equation $y = AB^x$. The growth rate for the B.Sc. degree conferred was 56 per cent.

The continuous rise from one period to the other could be related to the enrolment of the students. The degrees conferred must have automatically increased with the increase in student's enrolment. However, a sudden rise during 1962



THE DEGREES GRANTED FOR UNDERGRADUATE PROGRAMME

to 65 in the 'D' type of institutions disclosed that a higher percentage of graduates were during this period. As some of the institutions of this type followed semester and trimester system of examination students with different qualifications might have been adjusted for degree programmes. There were very few degree programmes then, Home Science teachers and others with only the qualification of Diploma might have joined the courses for the degree.

7.3 The Postgraduate Programmes

The undergraduate programmes are the beginning of the higher education. It is only at the postgraduate stages that the students get an opportunity to develop an understanding and critical thinking to receive the education. An understanding to receive knowledge analytically enhances the ability to contribute through researches and in turn to evaluate it for developing literature. It also provides opportunity to enter profession according to the interest. At this level it would contribute towards developing teachers and administrators with an insight to help in the growth of the programmes at all levels. Thus, in this study the development of the upostgraduate programmes along with the problems of its development are also analysed.

7.3.1. Development of the Programmes

An analysis of the development of the postgraduate programmes revealed that these programmes began developing after 1955. During the period 1955-64 about 35 percent of the total programmes were introduced whereas, during 1965 to 74 these were much higher (Table 38). These were also

Table 38 : Periodwise and institutionwise development of postgraduate programme

Sr.No.	Period N	Types of institutions I=6	D=5	E =12	Total 23
1	1955-1964	16.7	40.0	50.0	39.1
2	1965-1973	83.3	60.0	50.0	60.9
	Total	26.1	21.7	52.2	100.0

I = Independent D = Dependent E = Existent

higher individually in the 'I' and the 'D' type of institutions. The postgraduate programmes during the second phase in comparison to the first was 66 per cent higher in the 'I' type and 20 per cent in the 'D' type, whereas, in the 'E' type it was the same during both the periods.

The development of a higher percentage of the programmes during the second phase in the 'I' and the 'D' type of

institutions could be the outcome of the contributions made by the UT/India contract or Ford Foundation Project, Baroda. The objectives of the Home Science Association of India for developing higher programmes and the ease in the availability of teaching resources due to these efforts could be the added factors to the development of post-graduate areas of specialisation.

The Masters programmes during 1955-64 were established at the following institutions in one area of specialisation or the other. These were the, Faculty of Home Science, Baroda; Lady Irwin College, New Delhi; Queen Mary's College, Madras, M.L.H. M.G.V. Mahavidyalaya, Jabalpur; St.Teresa's College, Ernakulam; Department of Home Science, S.V. University, Tirupati; and S.N. College for Women, Quilon (Table 39).

Table 39 : Development of the postgraduate programmes 1955-64

Sr.No.	Name of the institutions	Area of Specialisation	Year
1	Faculty of Home Science, Baroda	CD,FN,G.H.Sc.	1956
2	Lady Irwin College, New Delhi	FN	1958
3	Queen Mary's College, Madras	HM	1960
4	Faculty of Home Science, Baroda	CT, Ext.Ed.	1961
5	Avinashilingam College, Coimbatore	HM	1961
6	S.I.E.T., Madras	CT	1961
7	S.A. College, H.Sc. Coimbatore	FN	1962

(continued)

(Table 39 continued)

Sr.No.	Name of the institution	Area of specialisation	Year
8	Faculty of Home Science, Baroda	HM	1963
9	M.L.H. M.G.M. Jabalpur	FN	1963
10	St. Theresa's College, Ernakulum	HM	1963
11	Dept. of Home Science, Tirupali	CD, FN	1963
12	Lady Irwin College	EE	1964
13	M.L.H. M.G.M. Jabalpur	HM	1964
14	G.N. College for Women, Quilon	HM	1964

The five areas - Child Development, Clothing and Textiles, Foods and Nutrition, Home Management and Home Science Extension Education were established only at the Faculty of Home Science, Baroda. The specialisation in Home Science Extension Education is known by different names in the different universities e.g. Faculty of Home Science, M.S. University, Baroda - Home Science Education and Extension Education. For the sake of uniformity and the basic philosophy it has been used in the study as Home Science Extension Education. At this faculty a sixth area of specialisation 'General Home Science' was also introduced. In all other institutions it was only in one or two areas.

A postgraduate department was established for the first time in an university exclusively for the postgraduate

studies and research at the S.V. University, Tirupati. This was a new venture and established a new trend. The post-graduate programmes were developed throughout the country and were available in Gujarat, Delhi, Tamil Nadu, Kerala, and Andhra Pradesh.

The development of these postgraduate programmes could be the result of the rising status of Home Science programmes at the school level and the demand for the qualified teachers and administrators. In comparison to all other institutions development of all the areas of specialisation in Home Science at the Faculty of Home Science, Baroda may be the result of the farsightedness of the pioneers in the faculty and university. It could also be the result of the guidance and help provided by the experts of the UT/India contract and Ford Foundation Project, Baroda. The establishment of the postgraduate department in the university could be due to the need felt for teaching and research at the higher level.

An analysis of the postgraduate programmes for the period 1955-64 areawise in the different types of institutions presented that only in the 'D' type of institutions did all the areas of specialisation establish (Table 40). The 'I' type of institutions had areas of Food and Nutrition and Home Science Extension Education, whereas the 'E' type had

Table 40 : Development of the postgraduate programme in different subjects in the different types of institutions (1955-1964) *

Sr.No.	Area of Discipline	Types of institutions			Total
		I	D	E	62
	N =	10	10	42	
1	Child Development	-	20.0	-	3.2
2	Clothing and Textiles	-	10.0	2.4	3.2
3	Foods and Nutrition	10.0	20.0	4.8	8.1
4	Home Management	-	10.0	11.9	9.7
5	Extension Education	10.0	10.0	-	3.2

* Before 1955 only one institution Women's Christian College, Madras had started M.Sc. in Foods and Nutrition in 1944 by Thesis. This was changed to course work and thesis in 1966 and is therefore included in 1966.

Food and Nutrition, Clothing Textiles and Home Management.

This development pattern could be the outcome of the organisational structure of teaching arrangement. The help of other institutions in developing programmes might have been effective in establishing all the areas in the 'D' type. In such type of institutions, expertise was available within the organisation. These institutions were also part of the university and this must have helped in the development.

During 1965-73 postgraduate programmes increased in both the 'I' and the 'D' type. The following institutions established the postgraduate programme: S.V.T. College of Home Science, Bombay; College of Home Science, APAU, Hyderabad. V.H.D. Institute of Home Science, Bangalore; Postgraduate Department of Home Science, University of Nagpur, Nagpur; Government Home Science College, Chandigarh; Department of postgraduate studies and research, Mysore; Institute of Household Arts and Home Science, Agra; Government Home Science College, Hoshangabad; College of Home Science, PAU, Ludhiana; Post Graduate College, Indore; College for Women, Trivendrum; Government Girls' College, Ujjain; Nirmala Niketan College of Home Science, Bombay, and M.L.B. College, Bhopal (Table 41). The Avinashilingam College of Home Science, Coimbatore which established Masters programme during 1955-64 in Home Management and Food and Nutrition during this period added other areas of specialisation - Child Development, Clothing and Textiles and Home Science Extension Education. This was the second institution of the country which could establish the Masters programme in all the five areas of Home Science.

The magnitude of the problem of establishing all the five areas in an institution can be gauged from the fact that since 1952 till today throughout the country only two

Table 41 : Development of the postgraduate programme 1965-73

Sr. No.	Name of the institution	Area of specialisation	year
1	St. Theresa's College, Ernakulum	CD	1965
2	S.V.T. COHSc, Bombay	CD, FN	1965
3	M.L.H. M.G.M., Jabalpur	CD	1966
4	S.A. COH.Sc., Coimbatore	CD	1966
5	S.A. Co H.Sc., Coimbatore	CT	1968
6	COH Sc., APAU, Hyderabad	FN	1968
7	V.H.D. Institute of H.Sc., Bangalore	CD	1968
8	P.G. Department, Nagpur	FN	1968
9	V.H.D. Institute of H.Sc., Bangalore	HM	1969
10	Govt. H.Sc. College, Chandigarh	G.H.Sc.	1969
11	Dept. of P.G. Studies and Research Mysore	FN	1969
12	L.I.C., New Delhi	CD	1970
13	Inst. of H.H. Arts and H.Sc., Agra	G.H.Sc.	1970
14	A.L. Co H.Sc., Coimbatore	EE	1970
15	Government Home Science College, Hoshangabad	HM	1970
16	Co H.Sc., PAU, Ludhiana	FN, HM, EE	1970
17	P.G. College, Indore	CD, HM	1971
18	College for Women, Trivendrum	EE	1972
19	S.V.T. Co H Sc., Bombay	CT	1972
20	Govt. Girls College, Ujjain	HM	1972
21	Nirmala Niketan College of Home Science, Bombay	CD, FN	1972
22	M.L.B. College, Bhopal	FN	1972
23	Govt. H.Sc. College, Chandigarh	CT	1973
24	Dept. of Home Science, Tirupati	HM	1973
25	P.G. Department, Nagpur.	HM	1973

institutions have been able to achieve this. These were the Faculty of Home Science, Baroda and Sri Avinashilingam College of Home Science, Coimbatore.

A study of the programmes during 1965-73, with relation to the subject and the institution brought to light that none of the 'I' type institution established the Home Science Extension Education programme; the 'D' type the Child Development and Clothing and Textiles. All the areas were developed only in the 'E' type of institutions (Table 42). This view confirms that

Table 42 : Development of postgraduate programmes in different subjects in the different types of institutions 1965-73

Sr.No.	Area of Discipline	Types of institutions			Total
		I	D	E	58
		N = 10	10	38	
1	Child Development	30.0	-	13.2	13.8
2	Clothing and Textiles	20.0	-	2.6	5.2
3	Food and Nutrition	30.0	30.0	5.3	13.8
4	Home Management	30.0	30.0	5.3	13.8
5	Extension Education	-	20.0	5.3	6.9

much of problems are involved in establishing Masters programmes. The problem of the availability of staff might also be hindering the balanced planning for the different areas of specialisation to begin with. It also reveals the problem of a broader choice to the students which must be restricting them to offer only the available areas of specialisation and not those in which they are interested.

7.3.2 The Present Status

A study of all the postgraduate programmes developed in different areas of specialisation between 1955-73 revealed that the highest number of programmes were in Home Management and the lowest in Clothing and Textiles (General Home Science and Institutional Management were not treated as different areas of specialisation) (Table 43). An arrangement listed

Table 43 : Post-graduate Programmes in different areas in the different types of institutions (1955-1973)

Sr.No.	Subject	Types of institutions			Total
		I	D	E	58
		N = 10	10	38	
1	Child Development	30.0	20.0	13.2	17.2
2	Clothing and Textiles	20.0	10.0	5.3	8.6
3	Food and Nutrition	40.0	50.0	10.5	22.4
4	Home Management	30.0	40.0	18.4	24.1
5	Extension Education	10.0	30.0	5.3	10.3
6	General Home Science	20.0	-	-	3.4
7	Institutional Management	-	-	2.6	1.7

in accordance with the subject and the institution displayed that there were maximum percentage of programmes in Food and Nutrition and next in Home Management.

The percentages in the 'I' type was 40 and 30 and in the 'D' type 50 and 40 respectively for the two areas. In the 'I' type the percentage of the Child Development was similar to Home Management. In the 'E' type of institutions the highest percentage of programmes were in Home Management.

The highest percentage of the postgraduate programme in Home Management may be due to the lack of a set standard established for the postgraduate programme and thus the programmes could have been established according to convenience. It could also be that once the programme was established other neighbouring institutions followed.

With the higher percentage of postgraduate programmes both in the 'I' and the 'D' type institutions, one could conclude that there are greater possibilities of establishing higher programmes when the institutions are basically established for Home Science. A higher percentage of programmes in Home Management might have been established due to lack of criteria set for this area for higher programme. Whereas, the postgraduate programmes in Food and Nutrition are dependent on chemistry and biochemistry which might have facilitated the setting up of the programmes eventhough there were handicaps in getting faculty staff. This argument seems logical when it was seen that the percentage of programmes were least in Clothing and Textiles; which could be due to lack of staff and facilities.

An arrangement of the data in order of the period and the subject unfolded an interesting information that certain subjects developed with strengthening growth whereas others did not. (Table 44). The Food and Nutrition programme developed

Table 44 : Development of Masters programme in different areas of specialisation irrespective of the types of institutions (1954-73)

Period	Areas of specialisation							Total
	CD	CT	FN	HM	EE	Gen.	IM	49
N =	10	5	13	12	6	H.Sc. 2	1	
1954-57	10.0	-	7.7	-	-	-	100.0	6.1
1958-61	-	40.0	7.7	16.7	16.7	-	-	12.2
1962-65	30.0	-	30.8	33.3	16.7	-	-	24.4
1966-69	30.0	20.0	30.8	8.3	-	50.0	-	20.4
1970-73	30.0	40.0	23.1	41.7	66.6	50.0	-	36.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

throughout the period but its development was the highest during 1962-69. In Child Development only 10 per cent programmes developed during 1954-57, the rest were established only after 1962. The programmes in Clothing and Textiles developed 40 per cent during 1958-61 and the rest after 1966. The same was true in Home Science Extension Education where 67 per cent programmes developed during 1970-73. This presented that the programmes developed approximately in all the areas from 1966 onwards.

The continuous development of the programmes in Food and Nutrition could be due to an understanding of the subject and its requirement from other related subjects like Chemistry and Biochemistry. The same could be said to be true for Child Development which is dependent on Psychology and Sociology. This dependence might have helped in the establishment of the programmes. The Home Management programmes started later but

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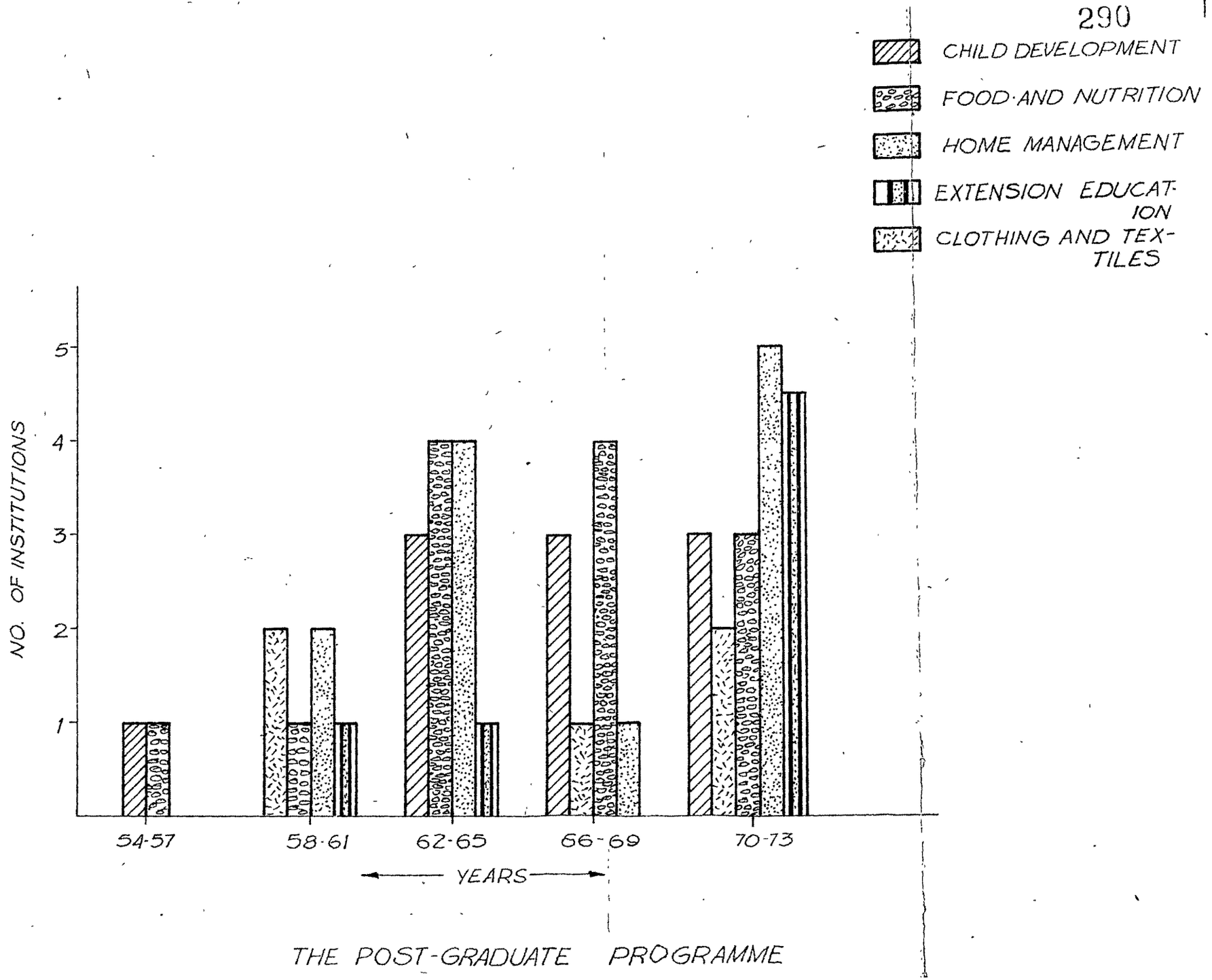

THE POST-GRADUATE PROGRAMME

after being rooted once continued developing may be due to lack of an understanding of the requirements or a set criteria of its requirements. However, lack of programmes were genuinely observed in Clothing and Textiles and Home Science Extension Education.

7.3.3 Enrolment and Degrees

The enrolment of the students for the different areas of postgraduate programmes manifested a regular growth. The rise in the percentage of growth for Child Development ranged from 0.6 to 34; Clothing and Textiles from 14 to 46; Food and Nutrition 5 to 22; Home Management 12 to 22 and Extension Education 11 to 38 (Table 45). During the period 1970-73

Table 45 : Enrolment in different areas of specialisation for postgraduate programmes (1954-73)

Period	Areas of specialisation						
	CD	CT	FN	HM	EE	Gen.H.Sc.	Total
1954-57	1 (0.2)	-	3 (0.3)	-	-	4 (5.0)	8 (0.3)
58-61	4 (0.8)	-	47 (5.3)	29 (4.1)	-	16 (20.0)	96 (3.7)
62-65	57 (10.8)	17 (8.6)	154 (17.2)	119 (16.7)	27 (13.7)	4 (5.0)	378 (14.5)
66-69	143 (27.1)	45 (22.8)	246 (27.5)	216 (30.4)	48 (24.4)	16 (20.0)	714 (27.4)
70-73	322 (61.1)	135 (68.5)	444 (49.7)	347 (48.8)	122 (61.9)	40 (50.0)	1410 (54.1)
Total	527 (100.0)	197 (100.0)	894 (100.0)	711 (100.0)	197 (100.0)	80 (100.0)	2606 (100.0)

The percentages have been calculated from the total admission

there was a sudden rise in the percentage of enrolment in Child Development, Clothing and Textiles, and Home Science Extension Education. It was 34, 46 and 38 per cent respectively in the three areas.

The rise in the enrolment percentages in all the areas throughout the periods explained a demand for a higher education for women, or postgraduate education in the profession. This could be more for Home Science as programmes in this field of education had begun late. Those who were without the postgraduate qualifications had to opt for it. The greater rise in the Child Development area could be due to demand in job or by the public. The same could be true of Clothing and Textiles and Home Science Extension Education. The number of programmes being less the demand in job might have been greater. Development of Home Science colleges in the Agricultural Universities may also be increasing the demand of teachers in job and therefore a rise in the enrolment percentage.

There was a continuous rise in the percentage of the degrees conferred for the postgraduate programmes from one period to the other in all the areas of Home Science (Table 46). The rise was also detected in the difference of the percentages of growth. It was continuous in Child Development and Clothing and Textiles, whereas in Food and Nutrition, Home Management

Table 46 : Postgraduate degrees conferred in different areas of specialisation (1954-73)

Period	Areas of specialisation						Total
	CD	CT	FN	FM	EE	Gen.H.Sc.	
1954-57	-	-	-	-	-	-	-
58-61	3 (1.0)	-	21 (3.6)	6 (1.2)	-	-	30 (1.7)
62-65	24 (8.3)	17 (12.9)	102 (17.4)	78 (15.4)	8 (4.9)	24 (35.8)	253 (14.5)
66-69	126 (48.3)	28 (21.28)	191 (32.5)	177 (35.0)	56 (33.9)	12 (17.9)	590 (32.0)
70-73	238 (81.8)	87 (65.9)	274 (46.6)	246 (48.5)	101 (61.2)	31 (46.3)	977 (55.8)
Total	291 (100.0)	132 (100.0)	588 (100.0)	507 (100.0)	165 (100.0)	67 (100.0)	1850 (100.0)

and Home Science Extension Education it fluctuated. It was highest in Child Development and Clothing and Textiles during the last phase. In other three areas it was highest during 1966-69.

The degrees conferred revealed a relationship with the students enrolled. The number of degrees conferred were rising continuously which was very much similar to the rise in the enrolment. As the enrolment was higher for the two areas Child Development and Clothing and Textiles it was higher for the degrees conferred in the same areas. However, a rise in other three areas - Food and Nutrition, Home Management and Home Science Extension Education during 1966-69

could be the effect of the discontinuation or the drop out in the later period.

The enrolment for the postgraduate programmes in the different types of institutions had a continuous growth. Out of the total admission in each type of the institution the percentage of admission during the different periods in the 'I' type ranged between 5 to 57; 'D' type 1 to 47 and in the 'E' type 0.3 to 55 (Table 47). The percentages

Table 47 : Enrolment in the postgraduate programmes in different types of institutions, (1954 to 1973)

Period	Types of institutions I=10		D=10		E=38		Total 58	
	Inst.	St.	Inst.	St.	Inst.	St.	Inst.	St.
1954-57	-	-	-	1 (1.3)	-	1 (0.3)	2	13 (0.5)
58-61	1	26 (4.8)	1	42 (6.5)	4	38 (2.6)	6	106 (4.0)
62-65	2	69 (12.8)	2	129 (20.1)	7	196 (13.5)	11	394 (14.9)
66-69	4	136 (25.1)	4	161 (25.0)	8	417 (28.6)	16	714 (27.0)
70-73	6	310 (57.3)	5	302 (47.0)	13	798 (54.9)	24	1410 (53.5)
Total	6	541 (100.0)	5	642 (100.0)	13	1454 (100.0)	24	2637 (100.0)

Figures in paranthesis show the average

of enrolment during each period in the three types of institutions were very much nearer to each other. During 1958-61 the enrolment percentage ranged from 3 to 7, 1962 to 65, 13 to 20, 1966 to 69, 25 to 29, and during 1970-73 between 47 to 57 . per cent. Forty seven to 57 per cent of the total enrolment was done during the last period.

A continuous development in the enrolment number in all the three types of institutions could be the effect of the diffusion of the discipline. It could also be the result of the demand of higher education. The higher percentages of enrolment in all these three types of institutions could be the consequences of the rising demand of Home Science in higher education throughout the country. The highest enrolment number during the last phase may be the consequence of the popularity of Home Science. The rise in the number of postgraduate programmes itself may have influenced the enrolment.

The postgraduate degrees conferred also reveal the same upward trend as that for the admission in all the three types of institutions (Table 48). The highest percentage of degrees were conferred during 1970-73.

Table 48 : Postgraduates degrees granted from different types of institutions

Period	Types of institutions							
	I=10		D=10		E=38		Total 58	
	Inst.	St.	Inst.	St.	Inst.	St.	Inst.	St.
1954-57	-	-	1	-	1	-	2	-
58-61	1	12 (3.4)	1	12 (3.1)	4	6 (0.5)	6	30 (1.6)
62-65	2	31 (8.9)	2	79 (20.5)	7	144 (12.9)	11	254 (13.7)
66-69	4	82 (23.5)	4	115 (29.8)	8	393 (35.2)	16	590 (31.9)
70-73	6	224 (64.2)	5	180 (46.6)	13	573 (51.3)	24	977 (52.8)
Total	6	349 (100.0)	5	386 (100.0)	13	1116 (100.0)	24	1851 (100.0)

The findings clearly establish relationship between the number of degrees conferred and students enrolled. There was a continuous growth and it was highest during 1970-73.

7.3.4 Problems of Higher Programmes

The development of Home Science at the higher level of education was always a problem. These problems wefe related to the number and qualification of the staff; students number; lack of funds, laboratories and equipment; and lack of jobs. These problems were reviewed from time to time in the Biennial Conferences of the Home Science Association of India. An inquiry into the reasons presented that amongst the 'I' type

of institutions the percentages of the respondents for different problems ranged from 10 to 50; in the 'D' type 10 to 60 and in the 'E' type 2 to 69 (Table 49). The problems

Table 49 : Problems in developing Masters and Doctoral programmes

Sr. No.	Problems	Types of institutions			Total
		I	D	E	62
		N= 10	10	42	
1	Inadequacy of staff size	50.0	60.0	35.7	41.9
2	Inadequacy of qualified ~~staf~~ staff	50.0	40.0	42.9	43.5
3	Lack of students	10.0	20.0	19.0	17.7
4	Lack of funds	40.0	20.0	69.0	56.5
5	Insufficient laboratories	50.0	10.0	64.3	53.3
6	Lack of equipment	40.0	10.0	54.8	43.5
7	Too early to start	40.0	20.0	2.4	11.3
8	No plans to start	30.0	10.0	4.8	9.7
9	Lack of jobs	30.0	20.0	4.8	11.3

which were treated as acute in the 'I' type of institutions were 'inadequacy in staff size, and their qualifications', and 'insufficient laboratories'.The highest percentage in the 'D' type abso expressed 'inadequacy of staff size'. The 'E' type institutions unfolded maximum problem for 'lack of funds' and 'insufficient laboratories'. The 'I' type had the least

problem with the 'number of students'; whereas the 'D' type had least problem with the 'insufficiency of laboratories and equipment'. The 'E' type expressed least that it was 'too early to start'.

The expression of a higher percentage in the 'I' type institutions for the number and the size of the staff seems to be a genuine problem because this was the crying need of the day. Thus, the issue of insufficient laboratories could be genuine. These were the independent type of institutions and had to develop all the facilities within the available resources.These resources being divided they might feel the problems. The 'D' type of institutions expressed the 'inadequacy of the staff', may be due to their recency of their being founded. In comparison to the problems of the 'I' and the 'D' type of institutions the 'E' type expressed the 'problem of funds'. The 'E' type of institutions having Home Science only in a department receive funds from the college and thus, must be having the problem of getting less funds than required. They being maintained either by the Government or Private body might be having the problems still more. The 'I' type of institutions revealed less problem for students in the Home Science education. These being the Home Science institutions must be greatly in demand. They must be also having provision for the enough number of students.The 'D' type of institutions

being lately developed must be having well planned laboratories and equipment and therefore the least per cent agreed that there were 'insufficient laboratories' and 'there was 'lack of equipment'. They are developed under government plans and supervised and administered by the Indian Council of Agricultural research so are expected to be well planned and equipped. The 'E' type of institutions agreed least to the problems that it was 'too early to start'. This could be that most of the institutions of this type were running the programmes with so many problems that they could not evaluate whether it was 'too early to begin'.

7.3.5 The Future Plans

The future plans of the different types of institutions were studied. It was divulged that each of the three types of institutions had a plan to start the Masters programme. Twenty per cent of these institutions which had Masters programme desired to develop the programmes in the areas which were not developed so far. Eighteen per cent institutions without Masters programme also planned to begin it. A few of the 'D' and the 'E' type of institutions desired to begin Ph.D. programmes (Table 50). All the three types of institutions placed importance to the Extension Education and Research work. The 'D' type of institutions expressed to increase Extension Education programme at the

Table 50 : Future plans for the development of the different types of programmes

Sr.No.	Programmes	Types of institutions I	D	E	Total
		N = 10	10	42	62
1.	M.Sc.				
	Postgraduate institutions	30.0	40.0	12.0	19.4
	Other institutions	30.0	30.0	12.0	17.7
2.	Ph.D.	-	30.0	4.8	17.7
3.	Extension Education B.Sc.	10.0	50.0	23.8	25.8
	M.Sc.	50.0	20.0	12.0	19.4
	Special Projects	20.0	80.0	19.0	29.0
4.	Research - M.Sc.	20.0	30.0	14.3	17.7
	Ph.D.	10.0	30.0	7.2	17.7
	Special projects	60.0	30.0	4.8	25.8

B.Sc. level and take up special projects, whereas the 'I' type of institutions had plans to begin Extension Education programme in the M.Sc. programmes. The 'E' type had plans to start it at both the B.Sc. and the M.Sc. level and had also plans to have special projects. All the three types of institutions had plans for the Research programmes.

It was encouraging to see that all the three types of institutions had plans for developing Masters programme,

Extension Education and Research programmes. These plans could be either the effect of the problems of the need of the Home Science education. Those institutions which had the Masters programme in some of the areas must have planned for other areas to balance the courses in the institution. Those institutions which did not had Masters programme must have planned to start it as it might have been in demand. The institutions which planned to begin the programmes were very few in number may be due to the problems of starting the higher programmes. Thus, only those who could cope up might have planned. The plans for Doctoral programmes were still few.

A plan to develop the Extension Education at both the undergraduate and postgraduate level presented the increased importance of the need of introducing and recognising it so is true of the research programmes. Often, in the Masters programmes students were not given an exposure for research work. In the absence of Doctoral programmes need to include it at the Masters level must also have been realised.

7.4 Profession

The professional preparation is one of the important objectives of higher level education in any field of study. As Home Science education is a new course of study an attempt was made to find out the professions for which the students could go after the completion of their education. These professions were tried to be known according to the administrator's understanding as they were responsible for imparting education.

These were seen for both the levels after the B.Sc. and after the M.Sc.

7.4.1 Professions for Undergraduates

It was interesting to see that out of the fifteen jobs listed after B.Sc. the percentages were higher only for limited jobs. All the three types of institutions accepted 'teachers in Higher Secondary Schools', 'demonstrators in colleges and universities' and 'higher studies' (Table 51). The other higher

Table 51 : Preparation for various professions after B.Sc.

Sr. No.	Professions	Type of institutions			Total
	N	I=9	D=8	E=42	59
1	Teacher in Higher Secondary schools	88.9	87.5	92.9	91.5
2	Demonstrators in Colleges	88.9	100.0	35.7	52.5
3	Teacher in Nursery school	55.6	50.0	9.5	22.0
4	Teacher in kindergarten	55.6	50.0	14.3	25.4
5	Lecturer in College	11.1	25.0	9.5	11.9
6	Dictitian in Hospital	33.3	25.0	4.8	11.9
7	Food demonstrator in industries	33.3	25.0	-	8.5
8	Extension worker	11.1	62.5	9.5	16.9
9	Supervisory work in extension	44.4	75.0	4.8	20.3
10	Extension workers in firms and industries	33.3	62.5	7.1	18.6
11	Can go for higher studies	88.8	100.0	73.8	79.7
12	Social worker	22.2	37.5	11.9	16.9
13	Caterer	-	-	4.8	3.4
14	Airlines	-	-	4.8	3.4
15	Can do their own work	44.4	50.0	9.5	20.3

accepted jobs by the 'I' and the 'D' type of institutions were 'teachers in nursery schools and kindergartens'. The 'D' type of institutions also accepted jobs related to extension work. For all the other jobs, except the three mentioned above forall the three types of institutions the percentage of the 'E' type of institutions was very low.

The findings revealed the highest agreement of all the three types of institutions for all the jobs related to teaching, could be due to its being most accepted and open for women whereas other jobs were either not open to Home Science graduates or the girls were not permitted to opt for it. The othef higher accepted jobs by the 'I' and the 'D' type of institutions were, 'Teachers in nursery schools and kindergarten' may be these were agreed to by those which offered either a specialised programme or the greater importance was placed to the Child Development programmes. The 'D' type of institutions accepting Extension Education related job seems to be very logical because many of these institutions are from Agricultural Universities having more emphasis on the Extension Education courses.

7.4.2 Professions for postgraduates

The findings here are very interesting. With a little difference all the institutions which had Masters programme favoured the jobs of the same type (Table 52). If there was

Table 52 : Preparation for professions after post-graduation

Sr.No.	Profession	Types of Institution			Total
		I	D	E	
1.	Child Development (Prog.N) =	3	2	5	10
	1. Lecturer in university	3	2	2	7
	2. Research worker	3	2	2	7
	3. Administrator in Nursery School	3	2	3	8
	4. Can work with exceptional children	-	2	-	2
	5. Can start their own work	2	2	3	7
2.	Clothing and Textiles Prog. N =	2	1	2	5
	1. Lecturer in the university	2	1	2	5
	2. Research worker	2	1	2	5
	3. Self employment	2	1	2	5
	4. Research in textile	2	1	2	5
3.	Foods and Nutrition (Prog. N =	4	5	4	13
	1. Lecturer in the university	4	5	4	13
	2. Nutritional expert	4	5	4	13
	3. Advisor in Food industry	4	5	1	10
	4. Researcher in Foods	2	2	1	5
	5. Can do their own work	1	2	1	4
	6. Catering work	2	2	1	5
4.	Home Management Prog.N=	3	4	7	14
	1. Lecturer in University	3	4	7	14
	2. Researcher in the University	3	4	2	9
	3. Researcher in firms	3	4	1	10
	4. Have their own work	3	4	1	10
	5. Teaching in schools	1	2	7	10

(Continued)

(Table 52 continued)

Sr.No. Profession	Types of institutions			Total
	I	D	E	
5. Extension Education Prog.N=	1	3	2	6
1. Lecturer in the University	1	3	2	6
2. Researcher in University	1	3	2	6
3. Can work with extension projects	1	3	2	6
4. Teaching work	1	3	2	6
6. Gen. H.Sc. Prog.N=	2	-	-	2
1. Lecturer in the University	1	-	-	1
2. Teaching in Schools	2	-	-	2
3. Research worker	1	-	-	1

any obvious difference it was the 'E' type of institutions and for the jobs related to research or technical programme e.g. demonstrators in firms.

The finding tempts to conclude that this could have been due to a greater similarity in the Masters programme. There might have been very little choice or no choice in the curriculum provided. Hence, there was no preparation for different types of jobs. It could also be possible that many jobs are not open for Home Science trained personnel. Home Science education like any other education at higher level aimed at preparation for employment. It was therefore thought important to find out how far the education provided was utilised. This is reviewed further.

7.5 Utilisation of Education

The utilisation of Home Science education was studied in three aspects : home making, higher education and job of economic independence both after B.Sc. and M.Sc.

7.5.1 Utilisation Problems

The findings revealed that 31 per cent institutions expressed that 71 to 80 per cent, 20 per cent expressed 51 to 60 per cent and 70 per cent said that 31 to 40 per cent, students be home makers (Table 53). This meant that 95 per cent expressed that 32 per cent and above students be home makers. In comparison to this 79 per cent agreed that 20 and below 20 per cent students go for higher studies. The same was the situation for job. All the respondents agreed that the percentages of students going in for the job was 30 per cent and below. This showed that a higher percentage of the students went for home making than those going in for higher studies.

This situation may be related to our social and cultural patterns of life. Where by and large greater emphasis is placed for home making job than profession and the same may be true for the higher education. There could also be lack of higher Home Science programmes, and those existing may not be within the easy reach of all. It could be further due to the limited seats in the existing higher education programmes and

Table 53 : **Percentage of undergraduates going in for different jobs**

Sr. No.	Range of students in percentage	Types of institutions I=10	D=10	E=42	Total 62	Types of institutions I=10	D=10	E=42	Total 62	Types of institutions I=10	D=10	E=42	Total 62
		Home maker				Higher Education				Job			
1	1 - 10	-	-	-	-	3	1	24	52.8	5	1	20	66.7
2	11 - 20	-	2	-	4.9	3	1	10	26.4	-	-	7	15.7
3	21 - 30	-	-	-	-	1	-	1	3.8	2	1	4	16.7
4	31 - 40	-	-	2	4.9	-	-	3	5.7	-	-	-	-
5	41 - 50	3	1	3	17.1	1	1	4	11.3	-	-	-	-
6	51 - 60	-	-	8	19.5	-	-	-	-	-	-	-	-
7	61 - 70	-	-	2	4.9	-	-	-	-	-	-	-	-
8	71 - 80	2	-	11	31.7	-	-	-	-	-	-	-	-
9	81 - 90	1	-	2	7.3	-	-	-	-	-	-	-	-
10	91 - 100	1	-	3	9.8	-	-	-	-	-	-	-	-
	Total	17.1	7.3	75.6	100.0	15.1	5.7	79.2	100.0	16.7	4.7	78.6	100.0

those existing may not be within the easy reach of all. It could be further due to the limited seats in the existing higher education programmes and thus eventhough girls who desired to continue had to discontinue the education. In the job situation it could be possible that many jobs were not accredited to Home Science graduates, or jobs were not within the proximity of the girls and therefore, they were not in a position to join for it. Outside the home town the situation may not be congenial for the girls to work and therefore even those desirous were not able to go in for the job.

The situation of the postgraduates when compared to the undergraduates seems to be totally different. Six percent expressed that below 30 per cent of the postgraduates be home makers and 70 per cent approbated that 30 per cent and above go in for job (Table 54).

Table 54 : The range in percentages of the postgraduates for different professions

Range of Students in percentages	Types of institutions				Types of institutions			
	I=6	D=5	E=12	T=23	I=6	D=5	E=12	T=23
	Home Maker				Job			
1 - 10	3	1	4	34.4	-	-	4	17.2
11 - 20	1	-	2	13.0	-	-	-	-
21 - 30	-	-	2	8.6	-	-	3	13.0
31 - 40	-	-	-	-	-	-	1	4.3
41 - 50	-	-	2	8.6	1	-	2	13.0
51 - 60	-	-	1	4.3	-	-	-	-
61 - 70	-	-	1	4.3	-	-	-	-
71 - 80	-	-	2	8.6	1	-	1	8.6
81 - 90	-	-	-	-	2	2	1	21.6
91 - 100	-	-	1	4.3	1	-	2	13.0

The findings revealed that post graduation helped taking up job. It could be that the post-graduation either created interest for job or a need to utilise the training might have been realised. It could also be that the demand of Home Scientists might have encouraged them to take up the job. Moreover, the maturity after postgraduation might have convinced the parents to consent for the job.

The social and cultural factors hindering girls entrance into the jobs were studied. The various factors studied were 'parents do not allow' 'chances for marriage are lessened' 'job is secondary for girls' 'girls have adjustment problem' 'jobs are available in their own college and state' and 'there is lack of job'. Amongst the problems stated here, the highest per cent in all the three types of institutions responded to two problems 'parents do not allow' and 'job is secondary for girls'. The percentages of the responses of the three types of institutions were 80, 90, 88 and 80, 90, 83 respectively. (Table 55).

Table 55 : Problems preventing girls from taking up jobs away from homes

Sr.No.	Problems	Types of institutions			Total
		I=10	D=10	E=42	62
1	Parents do now allow	80.0	90.0	88.1	87.1
2	Chances for marriage are lessened	30.0	10.0	52.4	41.9
3	Job is secondary for girls	80.0	90.0	83.3	83.9
4	Adjustment problem	10.0	10.0	38.1	29.0
5	Jobs available in their own college/town/state	60.0	-	38.1	35.5
6.	There is lack of jobs	-	-	38.1	25.8

The findings presented the view that the social and cultural factors played the most important role in effecting choices for girls to enter jobs. The two factors seemed to be related, because parents may not be permitting their daughters as they may be feeling that jobs are secondary for girls. Since the factors appeared to be social and cultural the data were also analysed on the basis of the states to see whether the difference existed between them (Table 56). The problem 'parents do not allow' was acute in all the states except Maharashtra, Kerala, Karnataka and Andhra Pradesh where the percentages of responses were 67, 60, 83 and 86 respectively in comparison to those states where all the respondents agreed to it. The problem 'job is secondary for girls' also presented the similar picture except change in the responses in Madhya Pradesh and Maharashtra. In Madhya Pradesh the response for this problem was lesser and in Maharashtra it was more than the previous one. However, the problem was acute throughout the country may be the basic social and cultural values existed throughout the country and were not much different from one state to the other. Whatever difference were shown may be because of the individual difference in the values. However, it can be easily said here that by and large it was set forth that the girls were not expected to earn for their living.

Table 56 : Problems preventing girls from taking up job away from Home

Sr. No.	Problem	N=	TN 7	UP 4	DELHI 2	GUJ 2	MP 13	BENG 1	MAH 6	KERA. 10	KARN. 6	AP 7	PUJ. 2	RAJ 1	HAR 1	TOTAL 62
1	Parents do not allow		100.0	100.0	100.0	100.0	100.0	100.0	66.7	60.0	83.3	85.7	100.0	100.0	100.0	87.1
2	Chances for marriage are lessened		42.9	50.0	-	-	84.6	-	33.3	40.0	33.3	28.6	-	-	-	41.9
3	Job is secondary for girls		100.0	100.0	100.0	100.0	84.6	100.0	100.0	40.0	83.3	85.7	100.0	100.0	100.0	83.9
4	Girls face adjustment problem		28.6	-	-	-	7.7	-	33.3	50.0	33.3	57.1	100.0	-	-	29.0
5	They get job in their own college town state		42.9	50.0	50.0	-	76.9	100.0	50.0	-	16.7	-	100.0	-	-	35.5
6	They are not owned		-	-	-	-	-	-	-	60.0	33.3	28.6	-	-	-	16.1
7	There is lack of job		85.7	-	-	-	-	-	-	50.0	33.3	42.9	-	-	-	25.8

7.6 Conclusion

A study of the undergraduate programmes revealed that there was no relationship of the duration of the programme to the number of years schooling required for admission. However, the maximum number of programmes required 12 years schooling for admission to a 3 years programme. This was the most common pattern. There were two types of undergraduate programmes available. These were the B.Sc. Home Science general and the B.Sc. specialisation. The percentage of the general programme was much higher in comparison to the specialised programmes. A higher weightage was allotted to the Sciences in comparison to the Humanities in the B.Sc. programmes. In all cases the weightage provided to Home Science was 50 per cent and above. Maximum percentage of these programmes were planned by the staff members and the external members cooperatively and these were evaluated when the need was felt by the staff.

The post-graduate programmes began from 1956 onwards. Their increase during 1965 to 1973 was much higher than during 1955 to 1964. There were more post graduate programmes in Food and Nutrition, Home Management and Child Development than in Clothing and Textiles and Home Science Extension Education. There was a continuous growth in the enrolment number and the degrees for both the undergraduate and the postgraduate programmes. Various problems were met and

encountered in the development of the postgraduate programmes. These problems were related to the insufficiency of funds, and laboratories; and were acute for the 'E' type of institutions. The 'D' type institutions had greater problems with the inadequacy of the staff. Still the future plans of the 'D' type of institutions were brighter in all the areas - teaching, research and Extension Education.

The various professions for which the undergraduates were prepared by all the three types of institutions were teaching in Higher Secondary, Nursery schools and kindergarten. They were also expected to take up the demonstrator's job. A higher percentage of the 'D' type accorded for the extension work. After the post graduation their professions were limited to the lecturer's job in the university, research workers and some specific jobs related to the area of specialisation. Scope of self employment was also consented. However, after graduation a higher percentage of students went in for the home making whereas a higher percentage after postgraduation went in for jobs of economic independence. The hinderances which came in the way for the girls to take up the jobs were of social and cultural nature.