

CHAPTER IV

DATA ANALYSIS AND INTERPRETATION

4.1 INTRODUCTION

“After the data have been collected, the ‘romance’ of field research is over and the difficult task of data analysis and interpretation begins.” (Gay, 2000).

In the previous chapter, the Methodology of the present research was discussed. The detailed process of objective wise analysis of collected data is described in this chapter along with interpretations.

4.2 OBJECTIVE WISE ANALYSIS

The objective-wise analysis of data is presented in the following sections.

4.3 ANALYSIS WITH RESPECT TO OBJECTIVE— 1

The objective—1 of the study is, *“To prepare abstracts of the Researches (Ph.D. Theses, M. Phil. Dissertations, and Research Projects) conducted at the School of Education, Devi Ahilya Vishwavidyalaya, Indore.”*

The Analysis and Interpretation with respect to objective—1 are as follows:

- Since the inception of the department, i.e. 1964, a total of 161 Ph.D. studies, 131 M.Phil. Studies 27 Research Projects and 714 M.Ed. Dissertations (i.e. a total of 1016 studies) were completed in the School of Education, Devi Ahilya Vishwavidyalaya, Indore, up to 2014.
- But, as the present study was delimited to Ph.D., M. Phil. and Research Projects studies only, so, M.Ed. dissertations were not taken into consideration.
- Out of 161 Ph.D., 131 M.Phil., 714 M.Ed. and 27 Research Projects studies during the time span of 1964-2014, only 149 Ph.D. studies, 124 M.Phil. Studies and 17 Research Projects could be located using primary and secondary sources (Table 1.5 and Table 1.6).
- The abstracts of the studies were prepared with respect to the components viz. Title, Researcher, Guide, Year, Objectives, Methodology [Hypothesis (if any), Methods, Tools, Data collection procedures, Data Analysis procedures] and Major Findings.

- The Abstracts for a total of 290 studies (149 Ph.D. studies, 124 M.Phil. Studies and 17 Research Projects) were prepared and presented in 29 chapters (Appendix —E).

4.4 ANALYSIS WITH RESPECT TO OBJECTIVE —2

The objective—2 of the study is, *“To classify and categorize the Educational Research conducted at the School of Education, Devi Ahilya Vishwavidyalaya Indore”*. The Analysis and Interpretation with respect to objective—2 are as follows:

- For a broader Classification, abstracts of the studies were categorized under 29 Areas/chapters, keeping in mind the Nature of the study, Area mentioned, Major/Minor areas of study and Outcome of the research. These 29 areas are mentioned in Table 4.1.

Table 4.1
Identified Areas of Research studies

Chapter	Areas (Major and Minor)
1	Adult, Continuing & Non-Formal Education
2	Comparative Education
3	Correlates of Education
4	Creativity
5	Curriculum Development
6	Distance Education
7	Ecology & Environmental Studies In Education
8	Educational Planning and Policy Research
9	ET/ICT
10	Futurology of Education
11	Guidance and Counselling
12	History of Education
13	Language Education
14	Library Education
15	Mathematics Education
16	Measurement, Assessment, and Evaluation
17	Music Education
18	Organization, Administration and Management
19	Philosophy of Education
20	Population Education
21	Primary Education
22	Psychology of Education
23	Science Education
24	Sociology of Education
25	Special Education
26	Teacher Education
27	Value Education
28	Vocational Education
29	Women Education

- A database of different Component-wise categorization (Basic and Physical information of the Research, Area of Research, Reviewed Literature, Methodology of the research, Type of Research, Sampling technique used, Tools used, Data analysis technique used, Reference styles used and Final Output of the Research) as mentioned in the *Educational Research Information and Review Schedule* (Appendix—B) was created using Microsoft Excel (MS-Excel) and International Business Machine—Software for Social Science (IBM-SPSS). The analysis of research with respect to aforesaid categorizations is mentioned in section 4.5.
- Area-wise, Year-wise, Level of Research-wise (Ph.D., M.Phil. and Project), Level of Education-wise (Lower Primary Education, Upper Primary Education, Secondary Education, Higher Secondary Education, and Higher Education), Subject of Research-wise (School and College level subjects) was categorization and Trend-analysis were also conducted which are mentioned in Section 4.5 and its subsections.

Each study was allocated one Major area and Minor area as per the nature of the study. Thus, studies were categorized into a total of 22 Chapters/categories under Major area and 25 Chapters/Categories under Minor areas of the study (refer section 4.4.2.1 and section 4.4.2.2).

4.4.1 ANALYSIS WITH RESPECT TO THE LEVEL OF RESEARCH AND YEAR

The School of Education, Devi Ahilya Vishwavidyalaya, Indore, established in 1964, has completed its 50 years of establishment and of Educational research in 2014. The researchers worked in different areas during these 50 years. Level wise and year wise description of conducted researches is mentioned in Table 4.2, Graph 4.1 and Graph 4.2.

From Table 4.2, Graph 4.1 and Graph 4.2, it is evident that —

- Out of total 290 studies, in maximum 133 (45.86 percent) studies were conducted in the decade 1985-94. Second-most 91 (31.38 percent) studies conducted in the decade 2005-2014, third-most 43 (14.83 percent) studies were carried out in the decade 1995-2004, 22 (7.59 percent) studies were conducted in the decade 1975-1984 and minimum 1 (0.34 percent) study was conducted during 1964-1974.

- Out of total 149 Ph.D. studies, maximum 52 (34.9 percent) studies were conducted during 2004-14, second-most 42 (28.19 percent) studies were conducted in the decade 1985-1994, third-most 41 (27.52 percent) studies were conducted in the decade 1995-2004, fourth-most 13 (8.72 percent) studies were conducted in the decade 1975-1984 and minimum 1 (0.67 percent) study was conducted during 1964-1974.
- Out of the total 124 M.Phil. studies, in maximum 85 (68.55 percent) studies were conducted during 1985-1994, second-most 38 (30.65 percent) studies were conducted in the decade 2005-2014, third-most one study (0.81 percent) 1995-2004 and no (0.0 percent) studies were conducted during 1964-1974 and 1975-1984.
- Out of the total of 17 project studies, in maximum 9 (54.92 percent) studies were conducted during 1975-1984. Only 1 (5.88 percent) project each was conducted during 1995-2004 and 2005-2014 respectively. No Projects was carried out during 1964-1974,

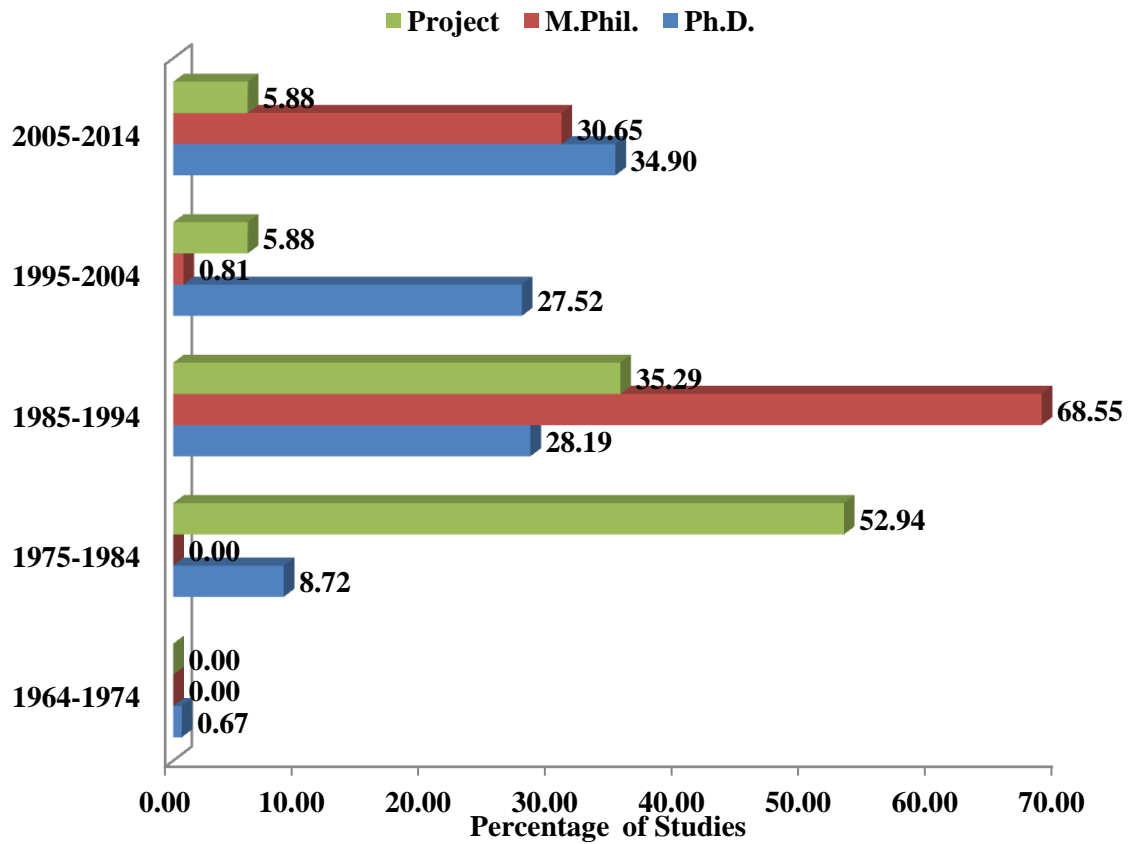
Table 4.2

Details of Ph.D., M.Phil. and Project researches over a span of decades at the School of Education, Devi Ahilya Vishwavidyalaya, Indore

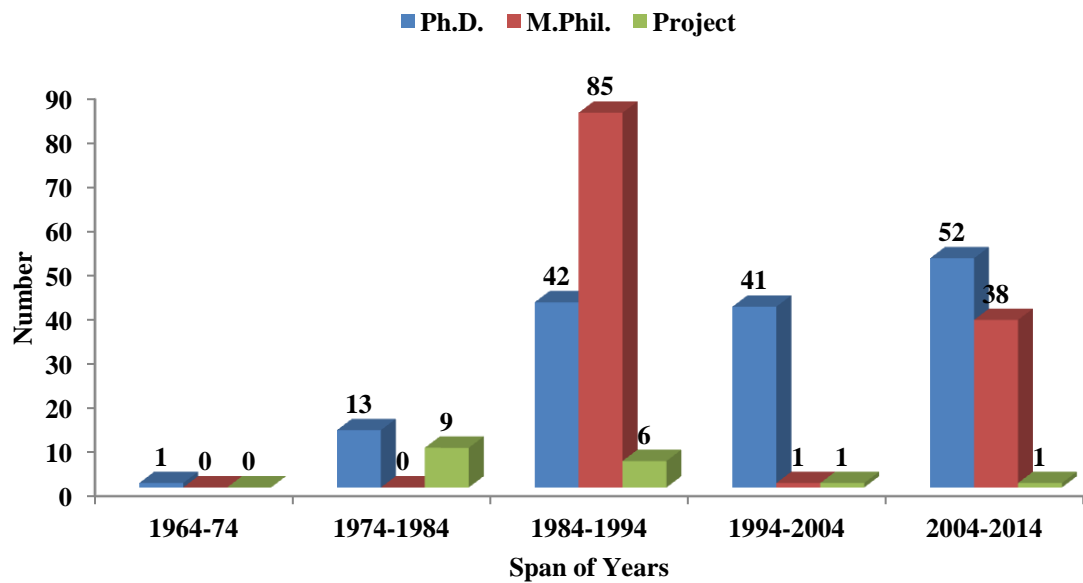
Span	Level			Total
		Ph.D.	M.Phil.	Project
1964-1974	N	1	0	0
	%	0.67	0.00	0.00
1975-1984	N	13	0	9
	%	8.72	0.00	52.94
1985-1994	N	42	85	6
	%	28.19	68.55	35.29
1995-2004	N	41	1	1
	%	27.52	0.81	5.88
2005-2014	N	52	38	1
	%	34.90	30.65	5.88
Total	N	149	124	17
	%	100	100	100

Graph 4.1

Percentage of Ph.D., M.Phil. and Projects studies over the span of decades in the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014

**Graph 4.2**

Trend of Number of the researches at different levels and over Decades



- The number of Ph.D. studies was increased progressively from 1964 to 2014.
- M.Phil. Studies were on in peak during 1985-1994 but afterward, there was an exponential decrease in the number of M.Phil. studies.
- From 1975 to 1994 maximum numbers of projects were undertaken but after that, a sudden decline in conducting projects was observed.

4.4.2 ANALYSIS WITH RESPECT TO THE AREA OF RESEARCH AND YEARS

The present section deals with detailed trend analysis regarding, ‘Area’ in which the researches at the School of Education, Devi Ahilya Vishwavidyalaya, Indore were conducted, during 1964-2014. For this purpose, an item ‘Area of Research’ was placed in the Educational Research Information and Review Schedule (Appendix—B).

The prepared abstracts of procurable *Ph.D.*, *M.Phil.* and *Projects* research studies were further categorized under-identified 29 Areas/chapters keeping in mind the nature of the study, Area mentioned, Major and Minor area of study and Outcome of the research. For the sake of convenience of understanding, two areas were embarked against each of the studies, as the Major area of the study and Minor Area of the study. Thus, studies were categorized into a total of 22 Chapters/categories under Major area and 25 Chapters/Categories under Minor areas of the study. The trend analysis was done with respect to the Major areas and Minor Areas separately. The following section depicts the results.

4.4.2.1 ANALYSIS WITH RESPECT TO THE MAJOR AREA OF RESEARCH AND YEARS

The distribution of the different levels of research with respect to the Major area is presented in Table 4.3, Table 4.4, Table 4.5, Table 4.6 and Graph 4.3. As far as the Major area of the research was concerned at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014, from Table 4.3, it is evident that —

Table 4.3***Distribution of the research studies according to the Major Area***

SN	Major Areas	Level			Total	
		Ph.D.	M.Phil.	Project	N	Percent
1	Adult, Continuing & Non Formal Education	5	4	1	10	3.45
2	Correlates of Education	0	5	0	5	1.72
3	Creativity	1	8	0	9	3.10
4	Curriculum Development	4	7	0	11	3.79
5	Distance Education	1	0	0	1	0.34
6	Ecology & Environmental Studies in Education	1	4	0	5	1.72
7	Educational Planning and Policy Research	1	2	0	3	1.03
8	ET/ICT	66	46	12	124	42.76
9	Futurology of Education	4	3	0	7	2.41
10	Guidance and Counselling	2	0	0	2	0.69
11	Language Education	1	1	0	2	0.69
12	Mathematics Education	0	1	0	1	0.34
13	Measurement, Assessment and Evaluation	6	4	0	10	3.45
14	Organization, Administration and Management	6	1	1	8	2.76
15	Philosophy of Education	9	12	0	21	7.24
16	Primary Education	1	2	0	3	1.03
17	Psychology of Education	24	12	1	37	12.76
18	Sociology of Education	3	6	0	9	3.10
19	Special Education	1	1	0	2	0.69
20	Teacher Education	11	3	2	16	5.52
21	Value Education	2	0	0	2	0.69
22	Vocational Education	0	2	0	2	0.69
Total		149	124	17	290	100

- Out of total 290 studies, a maximum 124 (42.76 percent) studies were conducted in the area of ‘Educational Technology/Information and Communication Technology (ET/ICT)’.
- ‘ET/ICT’ emerged out as the most priority area among the researchers. A total of 124 studies (66 Ph.D., 46 M.Phil. and 12 Projects) out of 290 studies were conducted in this area.
- ‘Psychology of Education’ was the second preferred area of conducting studies at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014. Out of total 290 studies, 37 (12.76 percent) studies were conducted in this area during 1964-2014. A total of 37 (24 Ph.D., 12 M.Phil. and 1 Project) studies were conducted in this area.
- The Third popular area of research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014 was ‘Philosophy of Education’ in which 21 (9 Ph.D., and 12 M.Phil.) studies were undertaken.

- Meager attention was paid to the areas like ‘Guidance and Counselling’, ‘Language Education’, ‘Vocational Education’, ‘Value Education’. As only 2 (0.69 percent) studies were conducted in each of these areas of research.
- ‘Distance Education’ and ‘Mathematics Education’ were the most deprived area of research. As only 1 (0.34 percent) studies each were conducted in these areas.

The major focus of the study was to identify trends. The table 4.4, Table 4.5, and Graph 4.3 and graphs given in the subsequent sections provide information about trends of the research conducted at different levels across different areas, during 1964-2014. For the convenience of understanding, the Major and Minor areas of the researches were mentioned separately. The duration of 1964-2014 i.e. 50 years was divided into 5 decades so as to locate the trends. Table 4.5, table 4.6 and Graph 4.3 is related to the Major area of the research. Table 4.7, Table 4.8 and Graph 4.4 are related to the Minor area of the research.

As far as researches conducted in the Major Area at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014 are concerned, the complete picture of trends is made clear in Table 4.4, Table 4.5 and Graph 4.3.

Table 4.4
Year (decade) wise distribution of researches with respect to Major Area of the study

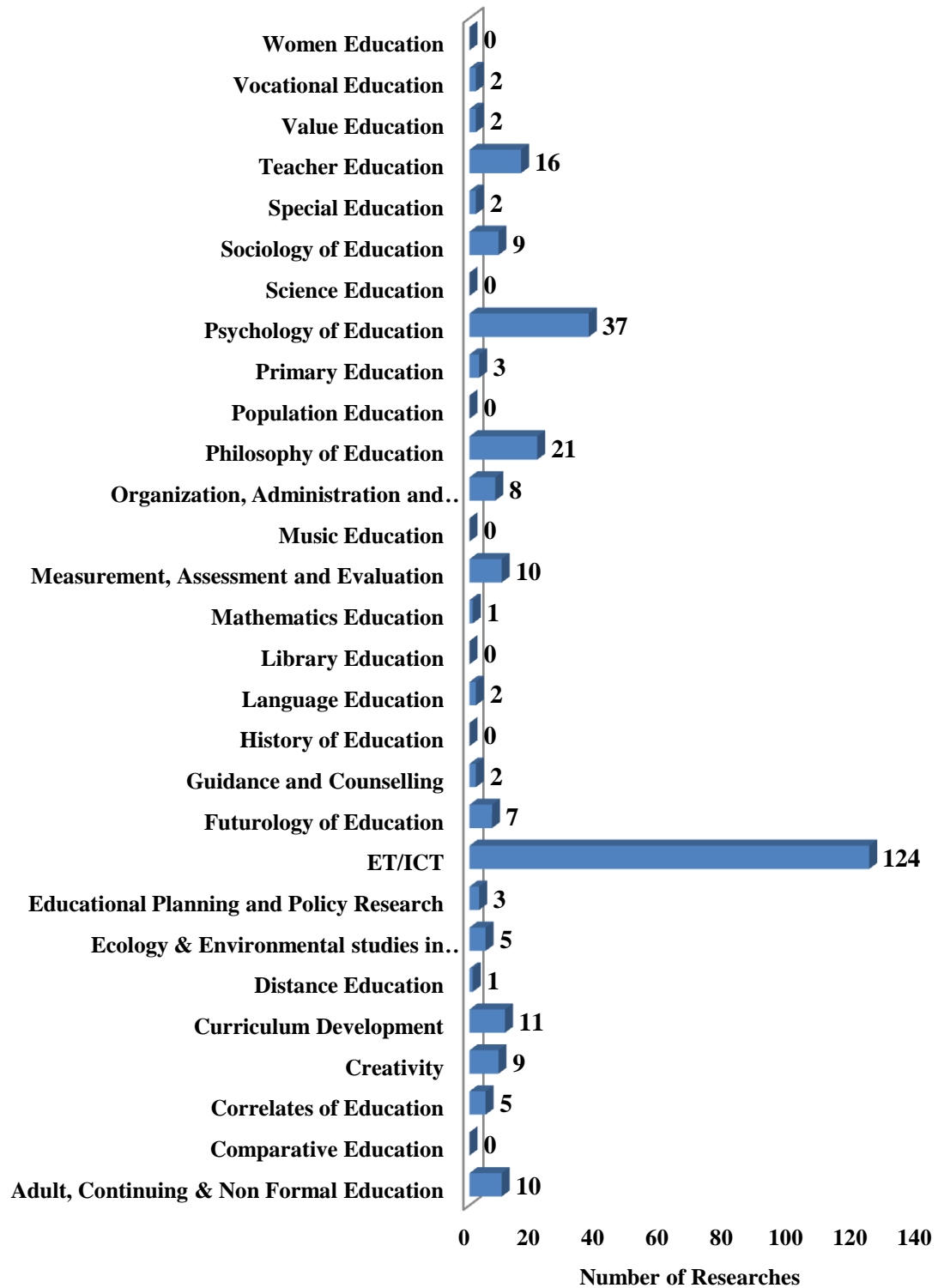
Year (decade) wise distribution of researchers with respect to Major Area of the study													
SN	Major Areas	Years (in Decades)										Total	
		1964-1974		1975-1984		1985-1994		1995-2004		2005-2014			
		N	%	N	%	N	%	N	%	N	%	N	%
1	Adult, Continuing & Non Formal Education	0	0.00	1	0.34	6	2.07	1	0.34	2	0.69	10	3.45
2	Comparative Education	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
3	Correlates of Education	0	0.00	0	0.00	5	1.72	0	0.00	0	0.00	5	1.72
4	Creativity	0	0.00	0	0.00	7	2.41	1	0.34	1	0.34	9	3.10
5	Curriculum Development	0	0.00	2	0.69	5	1.72	2	0.69	2	0.69	11	3.79
6	Distance Education	0	0.00	0	0.00	0	0.00	1	0.34	0	0.00	1	0.34
7	Ecology & Environmental studies in Education	0	0.00	0	0.00	3	1.03	0	0.00	2	0.69	5	1.72
8	Educational Planning and Policy Research	1	0.34	0	0.00	1	0.34	0	0.00	1	0.34	3	1.03
9	ET/ICT	0	0.00	8	2.76	59	20.34	16	5.52	41	14.14	124	42.76
10	Futurology of Education	0	0.00	0	0.00	4	1.38	3	1.03	0	0.00	7	2.41
11	Guidance and Counselling	0	0.00	0	0.00	0	0.00	1	0.34	1	0.34	2	0.69
12	History of Education	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
13	Language Education	0	0.00	0	0.00	0	0.00	1	0.34	1	0.34	2	0.69
14	Library Education	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
15	Mathematics Education	0	0.00	0	0.00	0	0.00	0	0.00	1	0.34	1	0.34
16	Measurement, Assessment and Evaluation	0	0.00	0	0.00	5	1.72	0	0.00	5	1.72	10	3.45
17	Music Education	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
18	Organization, Administration and Management	0	0.00	0	0.00	2	0.69	3	1.03	3	1.03	8	2.76
19	Philosophy of Education	0	0.00	0	0.00	12	4.14	1	0.34	8	2.76	21	7.24
20	Population Education	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
21	Primary Education	0	0.00	0	0.00	0	0.00	0	0.00	3	1.03	3	1.03
22	Psychology of Education	0	0.00	4	1.38	13	4.48	7	2.41	13	4.48	37	12.76
23	Science Education	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
24	Sociology of Education	0	0.00	0	0.00	4	1.38	1	0.34	4	1.38	9	3.10
25	Special Education	0	0.00	0	0.00	1	0.34	1	0.34	0	0.00	2	0.69
26	Teacher Education	0	0.00	6	2.07	5	1.72	3	1.03	2	0.69	16	5.52
27	Value Education	0	0.00	1	0.34	0	0.00	1	0.34	0	0.00	2	0.69
28	Vocational Education	0	0.00	0	0.00	1	0.34	0	0.00	1	0.34	2	0.69
29	Women Education	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Grand Total		1	0.34	22	7.59	133	45.86	43	14.83	91	31.38	290	100

Table 4.5***Level wise and Year (decade) wise distribution of researches with respect to Major Area of the study***

SN	Major Areas	Levels															Total	
		Ph.D.					M.Phil.					Projects						
		1964-1974	1975-1984	1985-1994	1995-2004	2005-2014	1964-1974	1975-1984	1985-1994	1995-2004	2005-2014	1964-1974	1975-1984	1985-1994	1995-2004	2005-2014	N	%
1	ADULT, CONTINUING & NON FORMAL EDUCATION	0	0	2	1	2	0	0	4	0	0	0	1	0	0	0	10	3.45
2	COMPARATIVE EDUCATION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
3	CORRELATES OF EDUCATION	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	5	1.72
4	CREATIVITY	0	0	0	1	0	0	0	7	0	1	0	0	0	0	0	9	3.10
5	CURRICULUM DEVELOPMENT	0	2	0	2	0	0	0	5	0	2	0	0	0	0	0	11	3.79
6	DISTANCE EDUCATION	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0.34
7	ECOLOGY & ENVIRONMENTAL STUDIES IN EDUCATION	0	0	1	0	0	0	0	2	0	2	0	0	0	0	0	5	1.72
8	EDUCATIONAL PLANNING AND POLICY RESERCH	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	3	1.03
9	ET/ICT	0	2	20	16	28	0	0	33	0	13	0	6	6	0	0	124	42.76
10	FUTUROLOGY OF EDUCATION	0	0	1	3	0	0	0	3	0	0	0	0	0	0	0	7	2.41
11	GUIDANCE AND COUNCELLING	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2	0.69
12	HISTORY OF EDUCATION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
13	LANGUAGE EDUCATION	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	2	0.69
14	LIBRARY EDUCATION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
15	MATHEMATICS EDUCATION	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0.34
16	MEASUREMENT, ASSESSMENT AND EVALUATION	0	0	3	0	3	0	0	2	0	2	0	0	0	0	0	10	3.45
17	MUSIC EDUCATION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
18	ORGANIZATION, ADMINISTRATION AND MANAGEMENT	0	0	1	3	2	0	0	1	0	0	0	0	0	0	1	8	2.76
19	PHILOSOPHY OF EDUCATION	0	0	4	1	4	0	0	8	0	4	0	0	0	0	0	21	7.24
20	POPULATION EDUCATION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
21	PRIMARY EDUCATION	0	0	0	0	1	0	0	0	0	2	0	0	0	0	0	3	1.03
22	PSYCHOLOGY OF EDUCATION	0	3	7	7	7	0	0	6	0	6	0	1	0	0	0	37	12.76
23	SCIENCE EDUCATION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
24	SOCIOLOGY OF EDUCATION	0	0	0	1	2	0	0	4	0	2	0	0	0	0	0	9	3.10
25	SPECIAL EDUCATION	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	2	0.69
26	TEACHER EDUCAITON	0	5	2	2	2	0	0	3	0	0	0	1	0	1	0	16	5.52
27	VALUE EDUCAITON	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0.69
28	VOCATIONAL EDUCATION	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	2	0.69
29	WOMEN EDUCATION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
Grand Total		1	13	42	41	52	0	0	85	1	38	0	9	6	1	1	290	100.00
Row wise % (out of 290)		0.34	4.48	14.48	14.14	17.93	0.00	0.00	29.31	0.34	13.10	0.00	3.10	2.07	0.34	0.34	100.00	
Weighted % within level		0.67	8.72	28.19	27.52	34.90	0.00	0.00	68.55	0.81	30.65	0.00	52.94	35.29	5.88	5.88		
Total Number (Total %)		149 (100%)					124 (100%)					17 (100%)						

Graph 4.3

Major Area wise Distribution of the researches at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014



From Table 4.4, Table 4.5 and Graph 4.3, It is evident that —

- The studies were not uniformly conducted among different levels cutting across different major areas of the research.
- The studies were conducted to few areas lopsidedly i.e. few areas dominated and some other areas were deprived of any study. For example, the ET/ICT area was totally dominated as far as the major area of research was concerned.
- The area of Educational Technology/Information & Communication Technology was found to be favorite among the teachers and researchers as out of total 290 studies, a maximum of 124 studies (66 Ph.D., 46 M.Phil. And 12 projects) was undertaken in this area.
- Out of a total of 290 studies,
 - Thirty-seven (12.76 percent) studies each were found to be conducted in the major area of ‘Psychology of Education’. This area was the second most popular area of research among teachers and researchers during 1964-2014.
 - Twenty-one (7.24 percent) studies were conducted in the major area of ‘Philosophy of Education’. This area was the third most preferable area of research among teachers and researchers during 1964-2014
 - Sixteen (5.52 percent) studies each were conducted in the major area of ‘Teacher Education’.
 - Eleven (3.79 percent) studies were conducted in the major area of ‘Curriculum Development’.
 - Ten (3.45 percent) studies each were conducted in the major areas like ‘Adult, Continuing & Non-Formal Education’ and ‘Measurement, Assessment & Evaluation’.
 - Nine (3.08 percent) studies each was found to be conducted in the major areas like ‘Creativity’ and ‘Sociology of Education’.
 - Seven (2.41 percent) studies and Eight (2.74 percent) studies were conducted in the major area ‘Futurology of Education’ and ‘Organization, Administration and Management’ respectively
 - Only five (1.71 percent) studies each were conducted in the major areas like ‘Correlates of Education’ and ‘Ecology & Environmental Studies in Education’.
 - Only three (1.03 percent) studies each were conducted in the major areas like ‘Educational Planning & Policy Research’ and ‘Primary Education’.

- Only two (0.68 percent) studies each were conducted in the major areas like ‘Guidance and Counseling’, ‘Language Education’, ‘Special Education’, ‘Value Education’ and ‘Vocational Education’.
- Only one (0.34 percent) studies each was found in the major areas like ‘Distance Education’ and ‘Mathematics Education’.
- The areas like Women Education, Science Education, Population Education, Music Education, Comparative Education, History of Education, Library Education was found to have no attention as no studies (0.00 percent) were found in these areas.
- Out of a total of 149 Ph.D. studies, 28 (18.79 percent) studies were conducted in the area of ET/ICT during the decade 2005-2014, which was found to be the maximum number of Ph.D. studies conducted in any specific area.
- Out of the total 124 M.Phil. studies, 33 (25.78 percent) studies were conducted in the area of ET/ICT during the decade 1985-1994 was found to be the maximum number of M.Phil. studies conducted in any specific area.

Table 4.6

Sub-Chapters under Major Area of Educational Technology/Information and Communication technology

SN	Sub Chapters	Level			Total
		Ph.D.	M.Phil.	Project	
1	Development of Educational/Instructional Material	24	4	2	30
2	Development of Strategy/Program/System or Software	22	11	1	34
3	Development of Methods of teaching	4	3	1	8
4	Development of Models of Teaching	14	27	3	44
5	Microteaching and Feedback	1	0	5	6
6	Miscellaneous studies on ET/ICT	1	1	0	2
Total		66	46	12	124

- Out of a total 17 Project studies, 6 (35.29 percent) studies were conducted in the area of ET/ICT during the decades 1975-1984 and 1985-1994 each, which was found to be the maximum number of project studies conducted in any specific area.
- For the convenience of understanding, this area was further divided into the six subheads mentioned in Table 4.6.

- Exploring the subchapter/Categories of the Educational Technology and Information and Communication Technology chapter it was found that in the area of Development of Models of Teaching 44 percent [Ph.D., M.Phil. and Project] studies were undertaken, while in the area of Development of Strategy/Program/System or Software 34 percent [Ph.D., M.Phil. and Project] studies were undertaken. In the area of Development of Educational/Instructional Material 30 percent [Ph.D., M.Phil. and Project] studies were conducted.

4.4.2.2 ANALYSIS WITH RESPECT TO THE MINOR AREA OF RESEARCH AND YEAR

The detailed distribution of the research studies according to the Minor area is presented in Table 4.7, Table 4.8, Table 4.9 and Graph 4.4.

Table 4.7

Distribution of the research studies according to the Minor area

SN	Minor Area of Research Studies	Level			Total	
		Ph.D.	M.Phil.	Project	N	Percent
1	Adult, Continuing & Non Formal Education	0	4	0	4	1.38
2	Comparative Education	0	1	0	1	0.34
3	Correlates of Education	11	12	0	23	7.93
4	Creativity	7	6	1	14	4.83
5	Curriculum Development	1	1	0	2	0.69
6	Distance Education	3	0	0	3	1.03
7	Ecology & Environmental Studies in Education	0	1	0	1	0.34
8	Educational Planning and Policy Research	0	0	2	2	0.69
9	ET/ICT	15	4	0	19	6.55
10	History of Education	0	1	0	1	0.34
11	Language Education	2	0	0	2	0.69
12	Library Education	0	2	1	3	1.03
13	Mathematics Education	0	1	0	1	0.34
14	Measurement, Assessment and Evaluation	2	4	0	6	2.07
15	Music Education	1	0	0	1	0.34
16	Organization, Administration and Management	13	8	0	21	7.24
17	Philosophy of Education	2	4	0	6	2.07
18	Population Education	1	0	0	1	0.34
19	Psychology of Education	23	21	1	45	15.52
20	Science Education	3	0	0	3	1.03
21	Sociology of Education	4	7	0	11	3.79
22	Special Education	1	0	0	1	0.34
23	Teacher Education	57	43	12	112	38.62
24	Value Education	2	4	0	6	2.07
25	Women Education	1	0	0	1	0.34
Total		149	124	17	290	100

As far as the Minor area of the research, at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014, was concerned, from Table 4.3, it is evident that —

- Out of the total 290 studies, in maximum 112 (38.62 percent) studies were conducted in the area of ‘Teacher Education’ which emerges out as the most priority area among Teachers and researchers. In this area 57 Ph.D., 43 M.Phil. and 12 Project studies were conducted.
- Out of 290 studies, with 45 (15.52 percent) studies, ‘Psychology of Education’ was the second most preferred area in which 23 Ph.D., 21 M.Phil. and 1 Project researches were conducted.
- Out of 290 studies, with 23 (7.93 percent) studies, ‘Correlates of Education’ was the third most preferred area in which 11 Ph.D. and 12 M.Phil. studies were conducted.
- Meager Attention was paid to the areas viz. Curriculum Development, Educational Planning and Policy Research, Language Education. As only 2 (0.69 percent) studies were conducted in each of these areas of research.
- Comparative Education, Ecology & Environmental Studies in Education, Special Education, Women Education, and Mathematics Education were the most deprived area of research. As only 1 (0.34 percent) studies each were conducted in these areas.

As far as researches conducted in the Minor Area, at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014 are concerned, the complete picture of trends was made clear in Table 4.7, Table 4.8, Table 4.9 and Graph 4.4. It is evident that

- The studies were not uniformly conducted among different levels cutting across different identified minor areas of the research.
- The studies were conducted on few areas lopsidedly i.e. few areas dominated and some other areas were deprived of any study. For Example, ‘Teacher Education’ was found to be totally dominated the other areas, as far as the Minor area of research was concerned.

Table 4.8
Minor area and Year (decade) wise distribution of researches

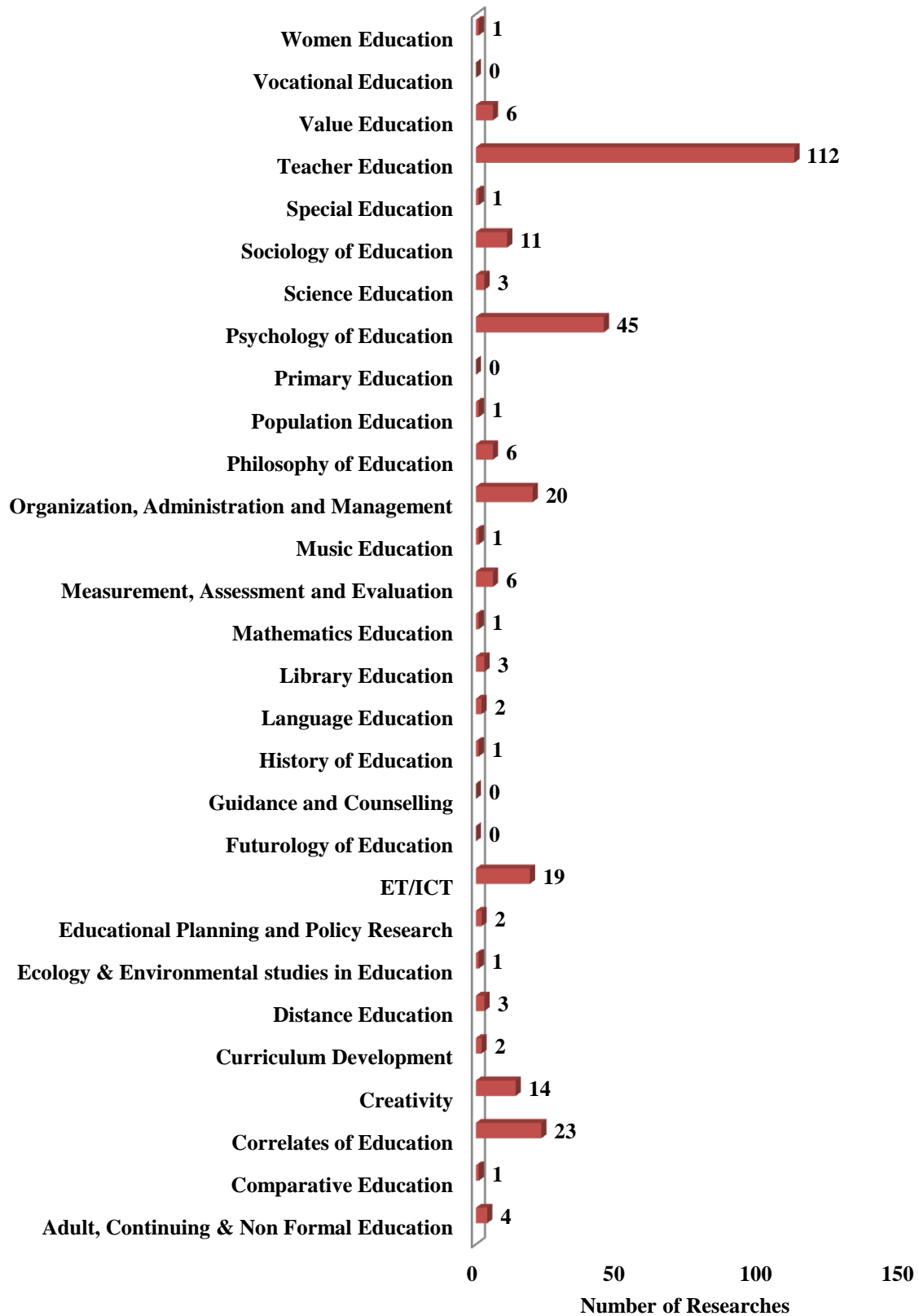
SN	AREA (MINOR)	Years					Total	%
		1964-1974	1975-1984	1985-1994	1995-2004	2005-2014		
1	Adult, Continuing & Non Formal Education	0	0	4	0	0	4	1.38
2	Comparative Education	0	0	1	0	0	1	0.34
3	Correlates of Education	0	0	8	1	14	23	7.93
4	Creativity	0	3	7	1	3	14	4.83
5	Curriculum Development	0	0	2	0	0	2	0.69
6	Distance Education	0	0	0	3	0	3	1.03
7	Ecology & Environmental studies in Education	0	0	1	0	0	1	0.34
8	Educational Planning and Policy Research	0	1	0	0	1	2	0.69
9	ET/ICT	0	3	8	4	4	19	6.55
10	Futurology of Education	0	0	0	0	0	0	0.00
11	Guidance and Counselling	0	0	0	0	0	0	0.00
12	History of Education	0	0	1	0	0	1	0.34
13	Language Education	0	0	1	1	0	2	0.69
14	Library Education	0	0	2	1	0	3	1.03
15	Mathematics Education	0	0	0	0	1	1	0.34
16	Measurement, Assessment and Evaluation	0	0	3	0	3	6	2.07
17	Music Education	0	0	0	1	0	1	0.34
18	Organization, Administration and Management	1	3	6	4	7	21	7.24
19	Philosophy of Education	0	0	4	1	1	6	2.07
20	Population Education	0	0	0	0	1	1	0.34
21	Primary Education	0	0	0	0	0	0	0.00
22	Psychology of Education	0	2	21	9	13	45	15.52
23	Science Education	0	0	2	1	0	3	1.03
24	Sociology of Education	0	1	9	0	1	11	3.79
25	Special Education	0	0	0	0	1	1	0.34
26	Teacher Education	0	9	48	16	39	112	38.62
27	Value Education	0	0	5	0	1	6	2.07
28	Vocational Education	0	0	0	0	0	0	0.00
29	Women Education	0	0	0	0	1	1	0.34
Total		1	22	133	43	91	290	
%		0.43	9.44	57.08	18.45	39.06		100.00

Table 4.9***Level wise and Year (decade) wise distribution of researches with respect to Minor Area of the study***

SN		Major Areas	Levels														Total	
			Ph.D.					M.Phil.					Projects					
			1964-1974	1975-1984	1985-1994	1995-2004	2005-2014	1964-1974	1975-1984	1985-1994	1995-2004	2005-2014	1964-1974	1975-1984	1985-1994	1995-2004	2005-2014	N
1	ADULT, CONTINUING & NON FORMAL EDUCATION	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	4	1.38
2	COMPARATIVE EDUCATION	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0.34
3	CORRELATES OF EDUCATION	0	0	2	1	8	0	0	6	0	6	0	0	0	0	0	23	7.93
4	CREATIVITY	0	2	3	1	1	0	0	4	0	2	0	1	0	0	0	14	4.83
5	CURRICULUM DEVELOPMENT	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	2	0.69
6	DISTANCE EDUCATION	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	3	1.03
7	ECOLOGY & ENVIRONMENTAL STUDIES IN EDUCATION	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0.34
8	EDUCATIONAL PLANNING AND POLICY RESERCH	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2	0.69
9	ET/ICT	0	3	5	4	3	0	0	3	0	1	0	0	0	0	0	19	6.55
10	FUTUROLOGY OF EDUCATION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
11	GUIDANCE AND COUNCELLING	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
12	HISTORY OF EDUCATION	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0.34
13	LANGUAGE EDUCATION	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	2	0.69
14	LIBRARY EDUCATION	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0	3	1.03
15	MATHEMATICS EDUCATION	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0.34
16	MEASUREMENT, ASSESSMENT AND EVALUATION	0	0	0	0	2	0	0	3	0	1	0	0	0	0	0	6	2.07
17	MUSIC EDUCATION	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0.34
18	ORGANIZATION, ADMINISTRATION AND MANAGEMENT	1	3	2	4	3	0	0	4	0	4	0	0	0	0	0	21	7.24
19	PHILOSOPHY OF EDUCATION	0	0	0	1	1	0	0	4	0	0	0	0	0	0	0	6	2.07
20	POPULATION EDUCATION	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0.34
21	PRIMARY EDUCATION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
22	PSYCHOLOGY OF EDUCATION	0	2	7	8	6	0	0	13	1	7	0	0	1	0	0	45	15.52
23	SCIENCE EDUCATION	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	3	1.03
24	SOCIOLOGY OF EDUCATION	0	1	3	0	0	0	0	6	0	1	0	0	0	0	0	11	3.79
25	SPECIAL EDUCATION	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0.34
26	TEACHER EDUCAITON	0	2	15	16	24	0	0	28	0	15	0	7	5	0	0	112	38.62
27	VALUE EDUCAITON	0	0	1	0	1	0	0	4	0	0	0	0	0	0	0	6	2.07
28	VOCATIONAL EDUCATION	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00
29	WOMEN EDUCATION	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0.34
Grand Total		1	13	42	41	52	0	0	85	1	38	0	9	6	1	1	290	100.00
Row wise % (out of 290)		0.34	4.48	14.48	14.14	17.93	0.00	0.00	29.31	0.34	13.10	0.00	3.10	2.07	0.34	0.34	100	
Weighted % within level		0.67	8.72	28.19	27.52	34.90	0.00	0.00	68.55	0.81	30.65	0.00	52.94	35.29	5.88	5.88		
Total Number (Total %)		149 (100%)					124 (100%)					17 (100%)						

Graph 4.4

Minor Area wise distribution of the researches at the School of Education, Devi Ahilya University, Indore during 1964-2014



- Out of the total 290 studies,
 - Maximum 112 (38.62 percent) studies were conducted in the area of ‘Teacher Education’ which emerges out as the most priority area among Teachers and researchers. In this area 57 Ph.D., 43 M.Phil. and 12 Project studies were conducted.
 - With 45 (15.52 percent) studies, ‘Psychology of Education’ was the second most preferred area in which 23 Ph.D., 21 M.Phil. and 1 Project researches were conducted.
 - With 23 (7.93 percent) studies, ‘Correlates of Education’ was the third most preferred area in which 11 Ph.D. and 12 M.Phil. studies were conducted.
 - Twenty-one (7.24 percent) studies were conducted in the area of ‘Organization, Administration and Management’.
 - Fourteen (4.83 percent) studies and Eleven (3.79 percent) studies were found to be conducted in the minor area ‘Creativity’ and ‘Sociology of Education’ respectively
 - Six (2.07 percent) studies each were found to be conducted in the minor area ‘Measurement and Assessment in Education’, ‘Value Education’ and ‘Philosophy of Education’ respectively.
 - Three (1.03 percent) studies each were found to be conducted in the minor area ‘Distance Education’, ‘Library Education’ and ‘Science Education’ respectively
 - Two (0.69 percent) studies each were found to be conducted in the minor area ‘Curriculum Development’, ‘Educational Planning and Policy Research’ and ‘Language Education’ respectively
 - Only one (0.34 percent) study each was found to be conducted in the Minor areas like ‘Comparative Education’, ‘Ecology & Environmental Studies in Education’, ‘History of Education’, ‘Mathematics Education’, ‘Music Education’, ‘Population Education’, ‘Special Education’ and ‘Women Education’.
 - No studies (0.00 percent) were found in the areas like ‘Primary Education’, ‘Vocational Education’, ‘Guidance & Counseling’ and ‘Futurology of Education’. Therefore no attention was paid to these areas.
- Out of total 149 Ph.D. studies, 24 (16.10 percent) studies were conducted in the area of ‘Teacher Education’ during the decade 2005-2014 was found to be the maximum number of Ph.D. studies conducted in any specific area.

- Out of the total 124 M.Phil. studies, 28 (22.58 percent) studies were conducted in the area of 'Teacher Education' during the decade 1985-1994 was found to be the maximum number of M.Phil. studies conducted in any specific area.
- Out of total 17 Project studies, 7 (41.17 percent) studies were conducted in the area of 'Teacher Education' during the decade 1975-1984, which was found to be the maximum number of project studies conducted in any specific area.

Using Table 4.3, Table 4.4, Table 4.5, Table 4.7, Table 4.8, Table 4.9, Table 4.10, Graph 4.3 and Graph 4.4, considering both Major and Minor areas of the study at different levels of the research and decade wise distribution, the following trends were observed:

- Out of total 290 studies, during 1985-94 the maximum 133 (45.86 percent) studies were conducted. During 2005-2014 the second maximum amount of studies i.e. 91 (31.38 percent) were conducted. During 1964-74 least number of researches 1 (0.34 percent) study was conducted.
- The trend of the research studies was found to be at peak during 1985-94 and then it was dipped down during 1995-2004. But, the number of researches was found progressive during 2005-2014. The initial period of the department i.e. 1964-74 and 1975-84 was found to be not impressive. The reason for no low number of studies from 1964 to 1984 could be due to the evolution of the Department and making the base for conducting research in the later years.
- Maximum 52 (34.9 percent) of the Ph.D. studies were conducted in the years 2004-2014.
- Minimum 1 (0.67 percent) of the Ph.D. studies were conducted in the years 1964-1974.
- The number of Ph.D. studies was found increased from 1964 to 2014 progressively.
- Maximum 85 (68.55 percent) of the M.Phil. studies were conducted in the years 1985-1994.
- Minimum none (0.00 percent) of the M.Phil. studies were conducted in the years 1964-1974 and 1975-84.
- The number of M.Phil. studies were found dipped down in 1995-2004 as compared to that got rise during 1985-94. Also the number of M.Phil. studies got decreased during 2005-2014 as compared to that of in 1985-94.
- Maximum 9 (52.94 percent) of the Research Projects were conducted in the years 1975-84.

- None (0.00 percent) of the Research Projects were conducted in the years 1964-1974.
- The number of Research projects studies was found decreased exponentially from 1985 to 2014 as compared to that got rise during 1975-84.

4.5 ANALYSIS WITH RESPECT TO OBJECTIVE—3

The objective—3 of the study is, *“To review and identify the Emerging trend of Educational research at the School of Education, Devi Ahilya Vishwavidyalaya Indore with respect to*

- i. Basic information about the Research*
- ii. Physical information about the Research*
- iii. Area of the research*
- iv. Reviewed Literature*
- v. Methodology of the research*
- vi. Type of research*
- vii. Sampling technique used*
- viii. Tools used*
- ix. Data analysis technique used*
- x. Reference styles used*
- xi. Final Output of the Research”*

To study trends and to review researches at the School of Education, Devi Ahilya Vishwavidyalaya Indore an *Educational Research Information and Review Schedule* (Appendix —B) was developed with the aforesaid components. Analysis and interpretation of the data gathered through this tool were analyzed, component-wise and item-wise separately, using Frequency Count, Percentage, Mean, Content analysis (using Inducto-Deductive and Analetico-Synthetic methods). Microsoft Office tools (MS-Word, MS-Excel) and IBM-Statistical Package for Social Sciences (SPSS) ver. 21 was used to make the database with respect to the aforementioned 11 components. The component-wise analysis is being presented in the following sections.

4.5.1 ANALYSIS REGARDING BASIC INFORMATION ABOUT THE RESEARCH

For analyzing this component of ‘Basic Information’ about the research conducted at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014, five items *‘Name of the Researcher, Name of Guide, Year, Title of the study*

and Objectives of the Study’ were placed in the *Educational Research Information and Review Schedule* (Appendix—B).

The details regarding ‘Name of the Researcher, Name of Guide, Year, Title of the Study and Objectives of the Study’ were entered in the abstracts (Appendix— E). The Decade-wise and Guide wise analysis was done earlier in Objective 2 (see Section 4.2.5).

4.5.1.1 ANALYSIS WITH RESPECT TO THE GUIDE OF THE RESEARCH

The trend analyses of the researches with respect to the Research Guides/Supervisors are presented in the following section. From Table 4.10, Table 4.11, Graph 4.5 & Graph 4.6, it is evident that—

- Out of a total of 290 studies
 - There were 24 research Guides/Supervisors and Principal Investigators during the period of 1964-2014 at the School of Education, who had been guided the researchers at different levels of research.
 - Maximum 50 (17.2 percent) research studies were guided by Dr. B. K. Passi, which includes 23 Ph.D., 16 M.Phil. and 11 Research Projects.
 - Following him, 43 (14.8 percent) research studies were guided by Dr. D. N. Sansanwal, which includes 25 Ph.D., 15 M.Phil. and 3 Research projects.
 - 24 (8.3 percent) research studies were guided by Dr. U. S. Choudhari, which includes 10 Ph.D. and 14 M.Phil. studies.
 - 23 (7.9 percent) research studies were guided by Dr. U. C. Vashishtha, which includes 10 Ph.D. and 14 M.Phil. studies.
 - Dr. P. C. Katiyar and Dr. S. N. Bhouraskar guided 15 (5.2 percent) studies each; Dr. Archana Dubey and Dr. Hansraj Pal guided 13 (4.5 percent) researches each; Dr. Meena Buddhisagar Rathod guided 12 (4.1 percent) researches; Dr. D. R. Goel and Dr. S. K. Tyagi guided 11 (3.8 percent) researches; Dr. Anuradha Joshi and Dr. Kamakshi Joshi guided to 9 (3.1 percent) researches each; Dr. P.K. Sahoo guided 8 (2.8 percent), researches, Dr. Prabhakar Singh guided 4 (1.4 percent) researches, Dr. N.M. Baghiya and Dr. Raghvendra Kumar Hurmade guided to 2 (0.67 percent) researches each;
 - Minimum of one (0.34 percent) research studies guided by Dr. M. B. Buch, Dr. Pratabh Deo and Dr. S. Saxena each.

Table 4.10

Distribution of researches completed under the guidance of supervisors at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014

	Guide	Ph.D.	Ph.D. (%)	M.Phil.	M.Phil. (%)	Project	Project (%)	Total	Total (%)
1	Dr. Anuradha Joshi	7	4.70	2	1.61	0	0.00	9	3.10
2	Dr. Archana Dubey	7	4.70	6	4.84	0	0.00	13	4.48
3	Dr. B. K. Passi	23	15.44	16	12.90	11	64.71	50	17.24
4	Dr. D. N. Sansanwal	25	16.78	15	12.10	3	17.65	43	14.83
5	Dr. D. R. Goel	7	4.70	4	3.23	0	0.00	11	3.79
6	Dr. Hansraj Pal	8	5.37	2	1.61	3	17.65	13	4.48
7	Dr. Kamakshi Agnihotri	5	3.36	4	3.23	0	0.00	9	3.10
8	Dr. Laxman Shinde	1	0.67	3	2.42	0	0.00	4	1.38
9	Dr. M. B. Buch	1	0.67	0	0.00	0	0.00	1	0.34
10	Dr. Madhulika Varma	2	1.34	5	4.03	0	0.00	7	2.41
11	Dr. Meena Buddhisagar Rathod	6	4.03	6	4.84	0	0.00	12	4.14
12	Dr. N. M. Bhagia	2	1.34	0	0.00	0	0.00	2	0.69
13	Dr. P. C. Katiyar	5	3.36	10	8.06	0	0.00	15	5.17
14	Dr. P. K. Sahoo	7	4.70	1	0.81	0	0.00	8	2.76
15	Dr. Prabhakar Singh	4	2.68	0	0.00	0	0.00	4	1.38
16	Dr. Pratibha Deo	1	0.67	0	0.00	0	0.00	1	0.34
17	Dr. Raghvendra Hurmade	0	0.00	2	1.61	0	0.00	2	0.69
18	Dr. Rama Mishra	3	2.01	3	2.42	0	0.00	6	2.07
19	Dr. S. Saxena	1	0.67	0	0.00	0	0.00	1	0.34
20	Dr. S. N. Bhouraskar	1	0.67	14	11.29	0	0.00	15	5.17
21	Dr. S. K. Tyagi	6	4.03	5	4.03	0	0.00	11	3.79
22	Dr. Shobha Vaidya	5	3.36	1	0.81	0	0.00	6	2.07
23	Dr. U. S. Choudhari	10	6.71	14	11.29	0	0.00	24	8.28
24	Dr. Umesh Chandra Vashishtha	12	8.05	11	8.87	0	0.00	23	7.93
	Total	149	100.00	124	100.00	17.00	100.00	290	100.00

Table 4.11

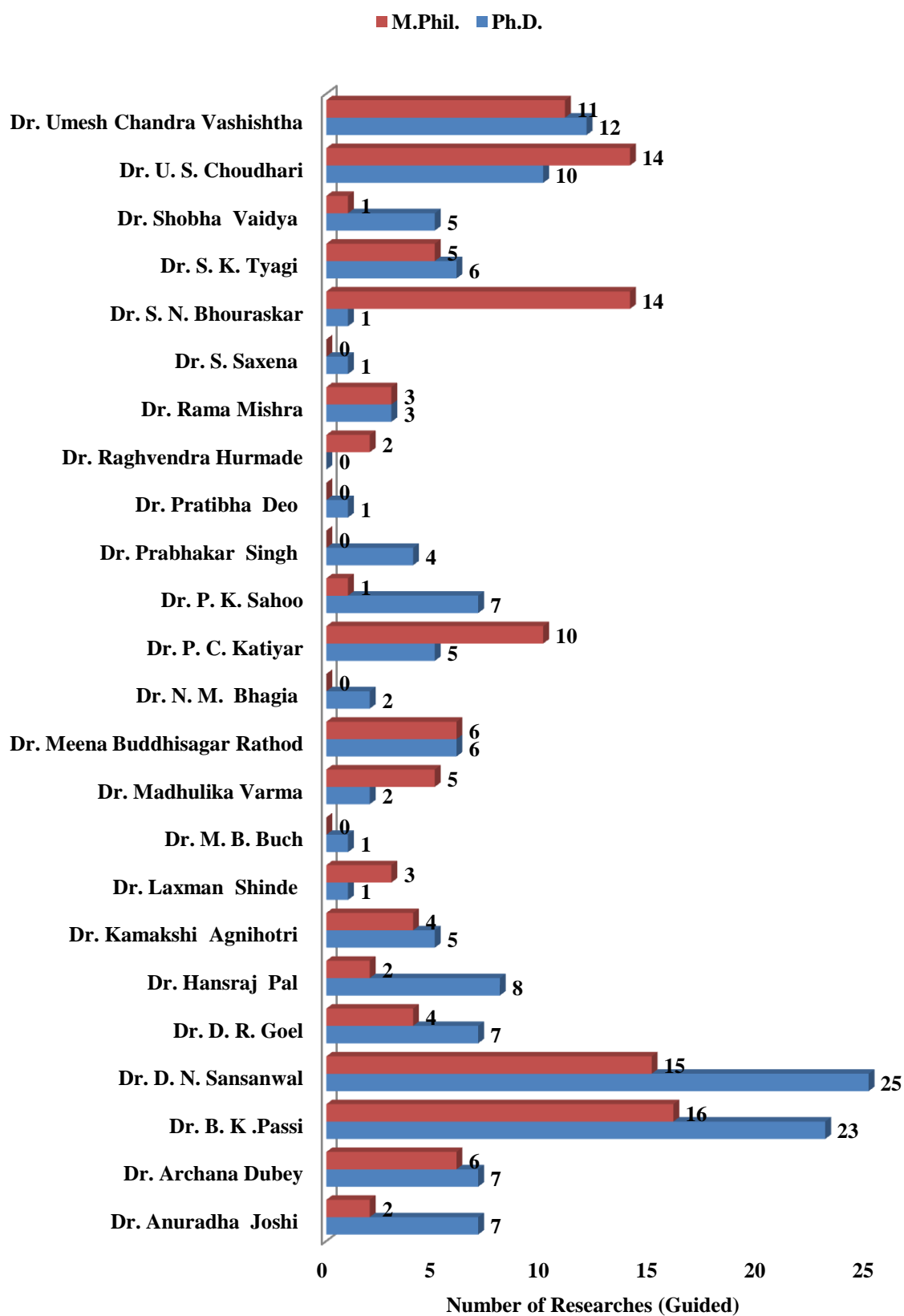
Level wise distribution and Trend of researches completed under the guidance of supervisors at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014

SN.	GUIDE	1964-1974			1975-1984			1985-1994			1995-2004			2005-2014			Total Ph.D.		Total M.Phil.		Total Project		TOTAL	
		a	b	c	a	b	c	a	b	c	a	b	c	a	b	c	Total	%	Total	%	Total	%	Total	%
1	Dr. Anuradha Joshi	0	0	0	0	0	0	1	0	0	3	0	0	3	2	0	7	4.7	2	1.6	0	0.0	9	3.1
2	Dr. Archana Dubey	0	0	0	0	0	0	0	0	0	1	0	0	6	6	0	7	4.7	6	4.8	0	0.0	13	4.5
3	Dr. B. K. Passi	0	0	0	5	0	7	11	16	4	7	0	0	0	0	0	23	15.4	16	12.9	11	64.7	50	17.2
4	Dr. D. N. Sansanwal	0	0	0	0	0	1	7	14	0	8	1	1	10	0	1	25	16.8	15	12.1	3	17.6	43	14.8
5	Dr. D. R. Goel	0	0	0	0	0	0	5	4	0	2	0	0	0	0	0	7	4.7	4	3.2	0	0.0	11	3.8
6	Dr. Hansraj Pal	0	0	0	0	0	1	0	0	2	1	0	0	7	2	0	8	5.4	2	1.6	3	17.6	13	4.5
7	Dr. Kamakshi Agnihotri	0	0	0	0	0	0	0	0	0	0	0	0	5	4	0	5	3.4	4	3.2	0	0.0	9	3.1
8	Dr. Laxman Shinde	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	1	0.7	3	2.4	0	0.0	4	1.4
9	Dr. M. B. Buch	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.7	0	0.0	0	0.0	1	0.3
10	Dr. Madhulika Varma	0	0	0	0	0	0	0	0	0	0	0	0	2	5	0	2	1.3	5	4.0	0	0.0	7	2.4
11	Dr. Meena Buddhisagar Rathod	0	0	0	0	0	0	0	0	0	2	0	0	4	6	0	6	4.0	6	4.8	0	0.0	12	4.1
12	Dr. N. M. Bhagia	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	1.3	0	0.0	0	0.0	2	0.7
13	Dr. P. C. Katiyar	0	0	0	2	0	0	3	10	0	0	0	0	0	0	0	5	3.4	10	8.1	0	0.0	15	5.2
14	Dr. P. K. Sahoo	0	0	0	0	0	0	0	1	0	7	0	0	0	0	0	7	4.7	1	0.8	0	0.0	8	2.8
15	Dr. Prabhakar Singh	0	0	0	0	0	0	1	0	0	2	0	0	1	0	0	4	2.7	0	0.0	0	0.0	4	1.4
16	Dr. Pratibha Deo	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0.7	0	0.0	0	0.0	1	0.3
17	Dr. Raghvendra Hurmade	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0.0	2	1.6	0	0.0	2	0.7
18	Dr. Rama Mishra	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	3	2.0	3	2.4	0	0.0	6	2.1
19	Dr. S. Saxena	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0.7	0	0.0	0	0.0	1	0.3
20	Dr. S. N. Bhouraskar	0	0	0	0	0	0	1	14	0	0	0	0	0	0	0	1	0.7	14	11.3	0	0.0	15	5.2
21	Dr. S. K. Tyagi	0	0	0	0	0	0	0	0	0	0	0	0	6	5	0	6	4.0	5	4.0	0	0.0	11	3.8
22	Dr. Shobha Vaidya	0	0	0	0	0	0	1	1	0	0	0	0	4	0	0	5	3.4	1	0.8	0	0.0	6	2.1
23	Dr. U. S. Choudhari	0	0	0	2	0	0	6	14	0	2	0	0	0	0	0	10	6.7	14	11.3	0	0.0	24	8.3
24	Dr. Umesh Chandra Vashishtha	0	0	0	0	0	0	6	11	0	6	0	0	0	0	0	12	8.1	11	8.9	0	0.0	23	7.9
TOTAL		1	0	0	13	0	9	42	85	6	41	1	1	52	38	1	149	100.0	124	100.0	17	100.0	290	100.0

a—Ph.D., b—M.Phil, c—Project

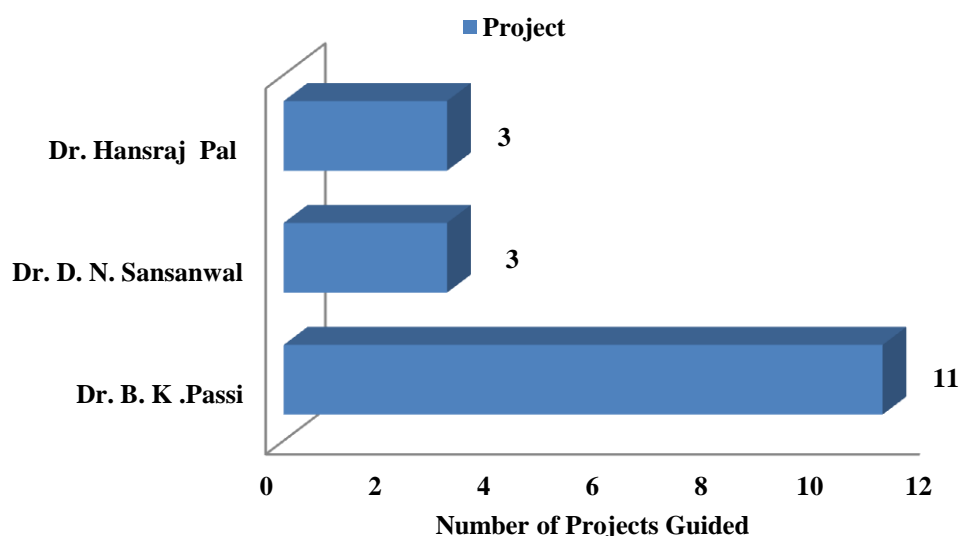
Graph 4.5

Guide-wise distribution of Ph.D. and M.Phil. researches at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014



Graph 4.6

Principal Investigator wise distribution of research projects at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014



- Out of total 149 Ph.D. studies,
 - Maximum 25 (16.78 percent) Ph.D. studies were guided by Dr. D. N. Sansanwal and 24 (15.44 percent) studies guided by Dr. B. K. Passi.
 - No Ph.D. study was guided by Dr. Raghvendra Kumar Hurmade.
- Out of total 124 M.Phil. studies,
 - Maximum 16 (12.9 percent) Ph.D. studies were guided by Dr. B. K. Passi. Following him, 15 (12.1percent) studies guided by Dr. D. N. Sansanwal.
 - No Ph.D. study was guided by Dr. Prabhakar Singh, Dr. N. M. Bhagiya, Dr. M. B. Buch, Dr. Pratabh Deo, and Dr. S. Saxena.
- Out of 17 Research projects,
 - Maximum 11 (64.71 percent) Project studies were guided by Dr. B. K. Passi as Principal Investigator.
 - Dr. H. R. Pal and Dr. D. N. Sansanwal guided 3 (17.65 percent) project each as Principal Investigator.
 - No research projects were undertaken by the rest of the faculty.

Thus, Dr. B. K. Passi and Dr. D. N. Sansanwal were found to have maximally contributed by guiding the maximum number of studies at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014. 93 (32.06 percent) studies were guided by both of them, in total.

4.5.2 ANALYSIS REGARDING PHYSICAL INFORMATION OF THE RESEARCH

In this section, detailed analysis regarding the ‘Physical Information about the research’ conducted at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014, was done item-wise. For this, six items viz. ‘Language of the research’, ‘Number of the pages used in the research report’, ‘Quality of the Paper’, ‘Quality of the Binding Work’, ‘Prepared Index of the research’ and ‘Number of Chapters’ were placed in the was placed in the *Educational Research Information and Review Schedule (Appendix—B)*. These were analyzed as follows—

4.5.2.1 ANALYSIS WITH RESPECT TO THE LANGUAGE OF THE RESEARCHES

For this, an item ‘Language used in the research’ was placed in the *Educational Research Information and Review Schedule (Appendix—B)* with the options of Hindi and English. The following Table 4.12, Table 4.13, Graph 4.7 depicts the scenario regarding the language used in the researches.

Table 4.12

Language-wise and Level-wise details of the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014

Dev Anandya Vishwavidyalaya, Raure, during 1964-2014										
Years	LANGUAGE								Grand Total	%
	HINDI				ENGLISH					
	Ph.D.	M.Phil.	Project	Total	Ph.D.	M.Phil.	Project	Total		
1964-1974	0	0	0	0	1	0	0	1	1	0.34
1975-1984	0	0	0	0	13	0	9	22	22	7.59
1985-1994	4	6	0	10	38	79	6	123	133	45.86
1995-2004	6	0	0	6	35	1	1	37	43	14.83
2005-2014	17	10	0	27	35	28	1	64	91	31.38
Total	27	16	0	43	122	108	17	247	290	
%	9.31	5.52	0.00	14.83	42.07	37.24	5.86	85.17		100

Table 4.13

Language-wise details of the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014

Reporting Language	Ph.D.	%	M.Phil.	%	Projects	%	Total	%
HINDI	27	18.12	16	12.90	0	0.00	43	14.83
ENGLISH	122	81.88	108	87.10	17	100.00	247	85.17
TOTAL	149	100.00	124	100.00	17	100.00	290	100.00

From Table 4.12, Table 4.13 & Graph 4.7, it is evident that —

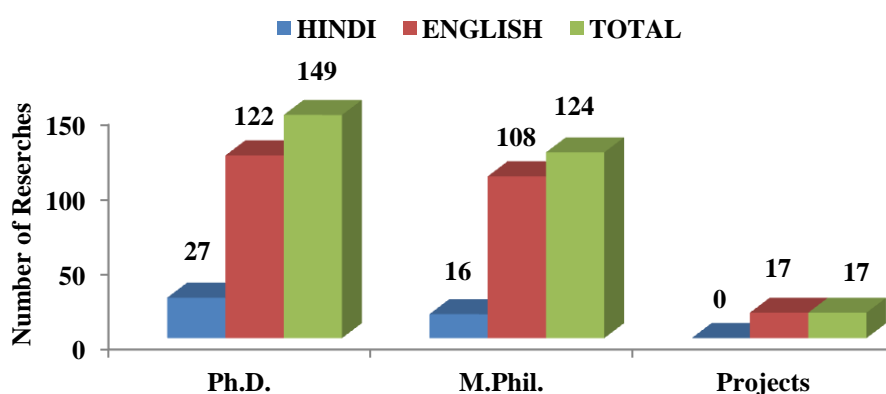
Out of 149 Ph.D. researches, English as a language of reporting was used in 122 (81.88 percent) studies whereas Hindi as language was used in 27 (18.12 percent) studies.

Out of 124 M.Phil. researches, English as a language of reporting was used in 108 (87.10 percent) studies whereas Hindi as language was used in 16 (12.9 percent) studies.

Out of 17 Research Projects, English as a language of reporting was used in all 17 (100 percent) studies.

Graph 4.7

Language-wise details of the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014



Out of total 290 researches, 43 (14.83 percent) studies were found reported in the Hindi language and 247 (85.17 percent) were found reported in the English language. It shows that most researchers prefer the English language as compared to the Hindi Language at all three Ph.D., M.Phil. and Project level. It was also found that none of the projects were reported in the Hindi Language. It can be elicited from the above description that, a balance between the research writing languages should be encouraged among researchers.

4.5.2.2 ANALYSIS WITH RESPECT TO NUMBER OF PAGES IN THE RESEARCHES

For this, an item 'Number of the Pages' was placed in the Educational Research Information and Review Schedule (Appendix—B). Table 4.14 & Graph 4.8 depicts the scenario regarding the number of pages in the research.

From Table 4.14 & Graph 4.8, it is evident that —

Out of 149 Ph.D. researches, 56 (37.58 percent) researches were reported in more than 300 pages. Further, 45 (3.20 percent) studies were reported in 251-300 pages, 23 (15.44 percent) in 201-250 pages, 20 (13.42 percent) studies in 151-200 pages and 5 (3.36 percent) studies in 101-200 pages.

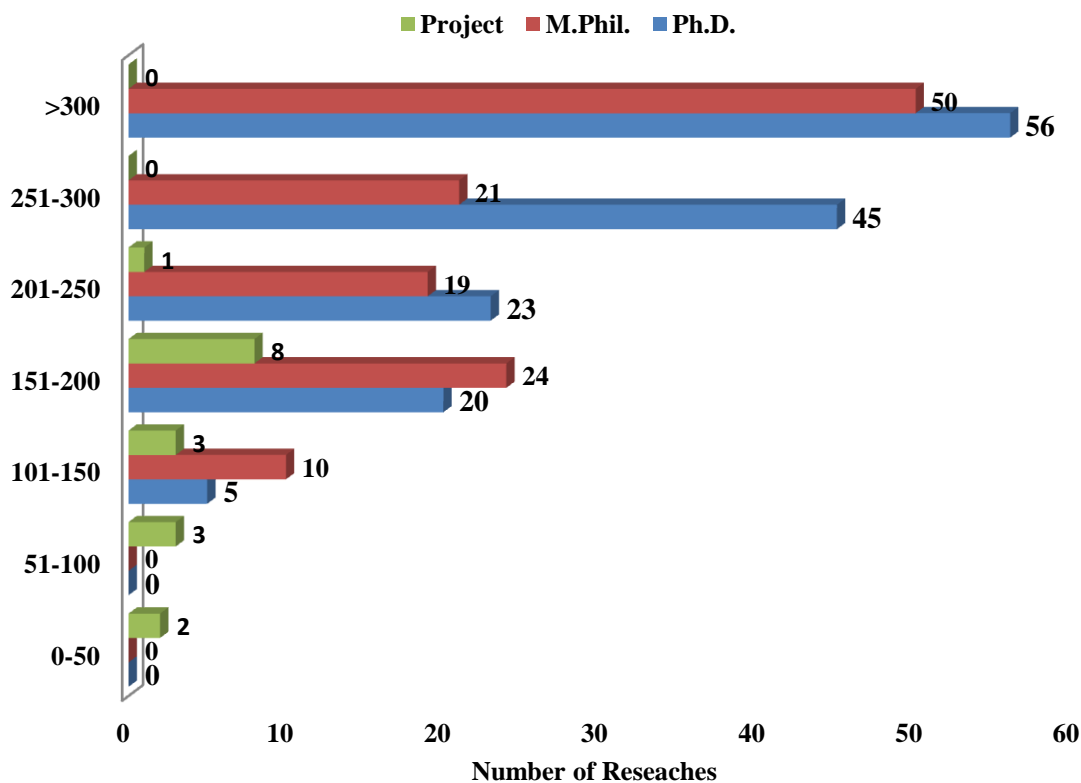
Table 4.14

Number of Pages-wise details of the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014

		Level of Research						Total	
SN.	Number of Pages	Ph.D.		M.Phil.		Project		N	%
		N	%	N	%	N	%		
1	0-50	0	0.00	0	0.00	2	11.76	2	0.69
2	51-100	0	0.00	0	0.00	3	17.65	3	1.03
3	101-150	5	3.36	10	8.06	3	17.65	18	6.21
4	151-200	20	13.42	24	19.35	5	29.41	52	17.93
5	201-250	23	15.44	19	15.32	1	5.88	43	14.83
6	251-300	45	30.20	21	16.94	2	11.76	66	22.76
7	>300	56	37.58	50	40.32	2	11.76	106	36.55
TOTAL		149	100.00	124	100.00	17	100.00	290	100

Graph 4.8

Number of Pages-wise details of the Research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014



Out of 124 M.Phil. researches, 50 (40.32 percent) researches were reported in more than 300 pages. Further, 21 (16.94 percent) studies were reported in 251-300 pages, 19 (15.32 percent) in 201-250 pages, 24 (19.35 percent) studies in 151-200 pages and 10 (8.06 percent) studies in 101-200 pages.

Out of 17 Research projects, 2 (11.76 percent) researches were reported in more than 300 pages and 251-300 pages each. Further, 1 (5.88 percent) studies were reported in 201-250 pages, 5 (29.41 percent) studies in 151-200 pages, 3 (17.65 percent) studies in 100-150 and 51-100 pages each and 2 (11.76 percent) studies in less than 50 pages.

Out of total 290 researches, a maximum 106 (36.55 percent) studies were reported in more than 300 pages. Further, 66 (22.76 percent) studies were reported in 251-300 pages, 43 (14.83 percent) in 201-250 pages, 52 (17.93 percent) studies in 151-200 pages 18 (6.21 percent) studies in 101-200 pages, 3 (1.03 percent) studies in 51-100 pages and 2 (0.69 percent) studies in less than 50 pages.

It can be elicited from the data that, as the level of research was increased the researches was found using more pages in reporting research. Overall, the research at the School of Education, Devi Ahilya Vishwavidyalaya used more than 300 pages for research reports. Thus, it can be concluded that the research becomes voluminous as an increase in the level of the research.

4.5.2.3 ANALYSIS WITH RESPECT TO QUALITY OF THE PAPER

For this an item 'Quality of the Paper' was placed in the *Educational Research Information and Review Schedule* (Appendix—B), with the options of 'Very Good', 'Good', 'Satisfactory', 'Bad' and 'Very Bad'. Table 4.15 & Graph 4.9 depicts the scenario regarding the Quality of the paper used in the researches. From Table 4.15 and Graph 4.9, it is evident that—

Out of 149 Ph.D. studies, Quality of paper of research report, in 14 (9.4 percent) studies were found to be 'Very Bad', in 40 (26.85 percent) studies found to be 'Bad', in 51 (34.23 percent) studies it was 'Satisfactory', in 24 (16.11 percent) studies found to be 'Good', and in remaining 20 (13.42 percent) found to be 'Very good'.

Out of 124 M.Phil. studies, Quality of paper of research report in 23 (18.55 percent) studies were found to be 'Very Bad', in 34 (27.42 percent) studies found to be 'Bad', in 45 (36.29 percent) studies it was 'Satisfactory', in 12 (9.68 percent)

studies found to be ‘Good’, and in remaining 10 (8.06 percent) found to be ‘Very good’.

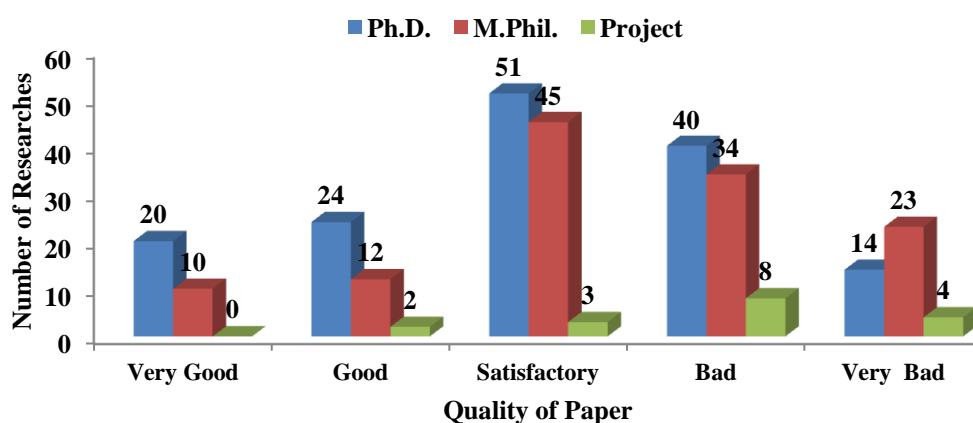
Table 4.15

Quality of the Paper wise details of the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014

SN.	Quality of Paper	Level of Research						Total	
		Ph.D.		M.Phil.		Project			
		N	%	N	%	N	%	N	%
1	Very Good	20	13.42	10	8.06	0	0.00	30	10.34
2	Good	24	16.11	12	9.68	2	11.76	38	13.1
3	Satisfactory	51	34.23	45	36.29	3	17.65	99	34.14
4	Bad	40	26.85	34	27.42	8	47.06	82	28.28
5	Very Bad	14	9.40	23	18.55	4	23.53	41	14.14
Total		149	100.00	124	100.00	17	100.00	290	100

Graph 4.9

Quality of the Paper wise details of the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014



Out of 17 Research Projects, Quality of paper of research report in 4 (23.53 percent) studies were found to be ‘Very Bad’, in 8 (.85 percent) studies found to be ‘Bad’, in 51 (34.23 percent) studies it was ‘Satisfactory’, in 24 (16.11 percent) studies found to be ‘Good’, and in remaining 20 (13.42 percent) found to be ‘Very good’.

Out of total 290 researches, quality of paper in 41 (14.14 percent) studies were found to be ‘Very Bad’, in 82 (28.28 percent) studies found to be ‘Bad’, in 99 (34.14 percent) studies it was ‘Satisfactory’, in 38 (13.1 percent) studies found to be ‘Good’, and in remaining 30 (10.34 percent) studies found to be ‘Very good’.

It can be inferred from the aforesaid that there was a ‘satisfactory’ level of use of quality paper while reporting the researches but still a great number of 123 studies

falls in the 'Bad' and 'Very Bad' category as far as the Quality of the paper used in the reporting the study. Less Permanence, Less smooth, low thickness (low GSM), Easily got tear, less Durable, Fragile and no standard paper was used, were some of the shortcomings in such studies as far as the Quality of the paper was concerned.

4.5.2.4 ANALYSIS WITH RESPECT TO QUALITY OF BINDING

For this, an item 'Quality of the Binding work' was placed in the Educational Research Information and Review Schedule (Appendix—B), with the options of 'Very Good', 'Good', 'Satisfactory', 'Bad' and 'Very Bad'. Table 4.16 & Graph 4.10 depicts the scenario regarding the Quality of the Binding work of the researches.

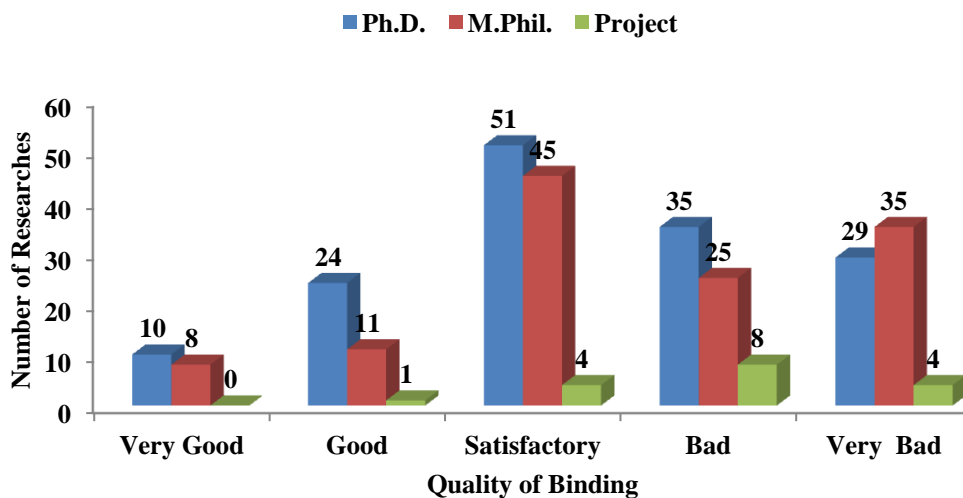
Table 4.16

Quality of Binding work-wise details of the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014

SN.	Quality of Binding	Level of Research						Total	
		Ph.D.		M.Phil.		Project		N	%
		N	%	N	%	N	%		
1	Very Good	10	6.71	8	6.45	0	0.00	18	6.21
2	Good	24	16.11	11	8.87	1	5.88	36	12.41
3	Satisfactory	51	34.23	45	36.29	4	23.53	100	34.48
4	Bad	35	23.49	25	20.16	8	47.06	68	23.45
5	Very Bad	29	19.46	35	28.23	4	23.53	68	23.45
Total		149	100.00	124	100.00	17	100.00	290	100

Graph 4.10

Quality of Binding work-wise details of the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014



From Table 4.16 & Graph 4.10, it is evident that —

Out of 149 Ph.D. researches, Binding quality of 10 (6.71 percent) researches were found very good, in 24 (16.11 percent), 51 (34.23 percent), 35 (23.49 percent) and 29 (19.46 percent) research paper quality was found ‘Good’, ‘Satisfactory’, ‘Bad’ and ‘Very Bad’ respectively.

Out of 124 M.Phil. Researches, Binding quality of 8 (6.45 percent) researches were found very good, in 11 (8.87 percent), 45 (36.29 percent), 25 (20.16 percent) and 35 (28.23 percent) research paper quality was found ‘Good’, ‘Satisfactory’, ‘Bad’ and ‘Very Bad’ respectively.

Out of 17 Research Projects, Binding quality of 1 (5.88 percent) was Good, in 4 (23.53 percent), 8 (47.06 percent) and 4 (23.53 percent) researches paper quality was found ‘Satisfactory’, ‘Bad’ and ‘Very Bad’ respectively.

Out of total 290 researches (Ph.D., M.Phil. and Project), Binding quality of 18 (6.21 percent) researches were found ‘Very good’, in 36 (12.41 percent), 100 (34.48 percent), 68 (23.45 percent) and 68 (23.45 percent) researches paper quality was found ‘Good’, ‘Satisfactory’, ‘Bad’ and ‘Very Bad’ respectively.

Poor stitch work, use of Poor quality adhesives in hard bounds, binding in softbound (!!!), damaged bindings were found while reviewing the researches as far as the binding of the research was concerned. It can be concluded from the aforesaid that, there is a need to take serious attention towards the quality of binding work, the thesis management system in the library should be strengthened and researchers should be encouraged to use the reports of researches with caution.

4.5.2.5 ANALYSIS WITH RESPECT TO INDEX PREPARED

For this an item ‘Whether Index Prepared was prepared?’ was placed in the Educational Research Information and Review Schedule (Appendix—B), with the options of Satisfactory/Not satisfactory, along with the reasons of the choice. Table 4.17 and Graph 4.11 depicts the scenario regarding the Index prepared in the Ph.D., M.Phil. and Project researches

From Table 4.17 and Graph 4.11, it is evident that —

Out of total 149 Ph.D. researches, a satisfactory level of Index was prepared in 98 (65.77 percent) researches while in 51 (34.23 percent) researches index were found ‘Not satisfactory’.

Out of total 124 M.Phil. researches, a satisfactory level of Index was prepared in 68 (54.84 percent) researches while in 56 (45.16 percent) researches index was found 'Not satisfactory'.

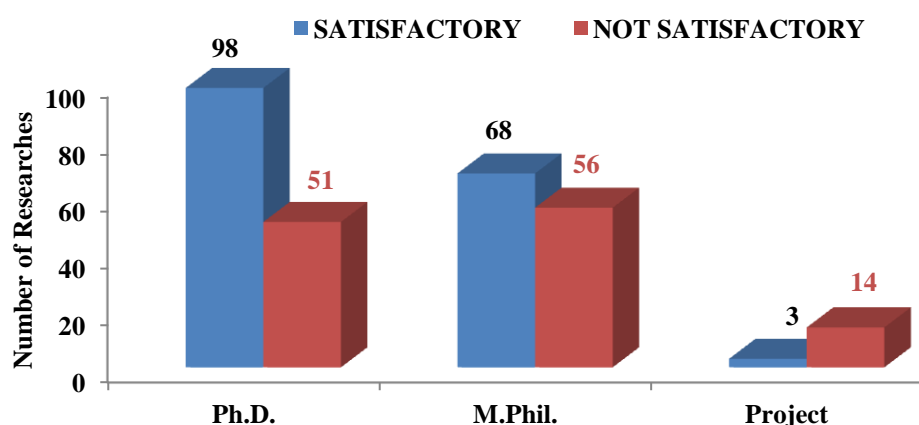
Table 4.17

Prepared Index-wise details of the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014

S N	INDEX PREPARED	Level of Research							
		Ph.D.		M.Phil.		Project		Total	
		N	%	N	%	N	%	N	%
1	SATISFACTORY	98	65.77	68	54.84	3	17.64	169	58.28
2	NOT SATISFACTORY	51	34.23	56	45.16	14	82.36	121	41.72
	Total	149	100	124	100	17	100	290	100

Graph 4.11

Prepared Index-wise details of the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014



Out of total 17 Projects, a satisfactory level of Index was prepared in 3 (17.64 percent) researches while in 14 (82.36 percent) researches index was found 'Not satisfactory'.

Out of total 290 researches (Ph.D., M.Phil. and Project), a satisfactory level of Index was prepared in 169 (58.28 percent) researches while in 121 (41.72 percent) researches index was found 'Not satisfactory'.

The general errors while preparing the Index was found to be, the Non-Indentation of the tables of Index; Missing page numbers; Mismatch of Page number written and information; Pagination errors; Non-mentioning of the list of Tables and Graphs even though tables and graphs were there in the reports; formatting errors; and Incomplete Index. Conclusively, considering Index preparation as one of the important features in the research report, adequate attention should be given while preparing it.

4.5.2.6 ANALYSIS WITH RESPECT TO NUMBER OF THE CHAPTERS

For this, an item 'Number of the chapters in the Research' was placed in the Research Review Tool. Table 4.18 & Graph 4.12 depicts the scenario regarding the Number of the chapters in the researches.

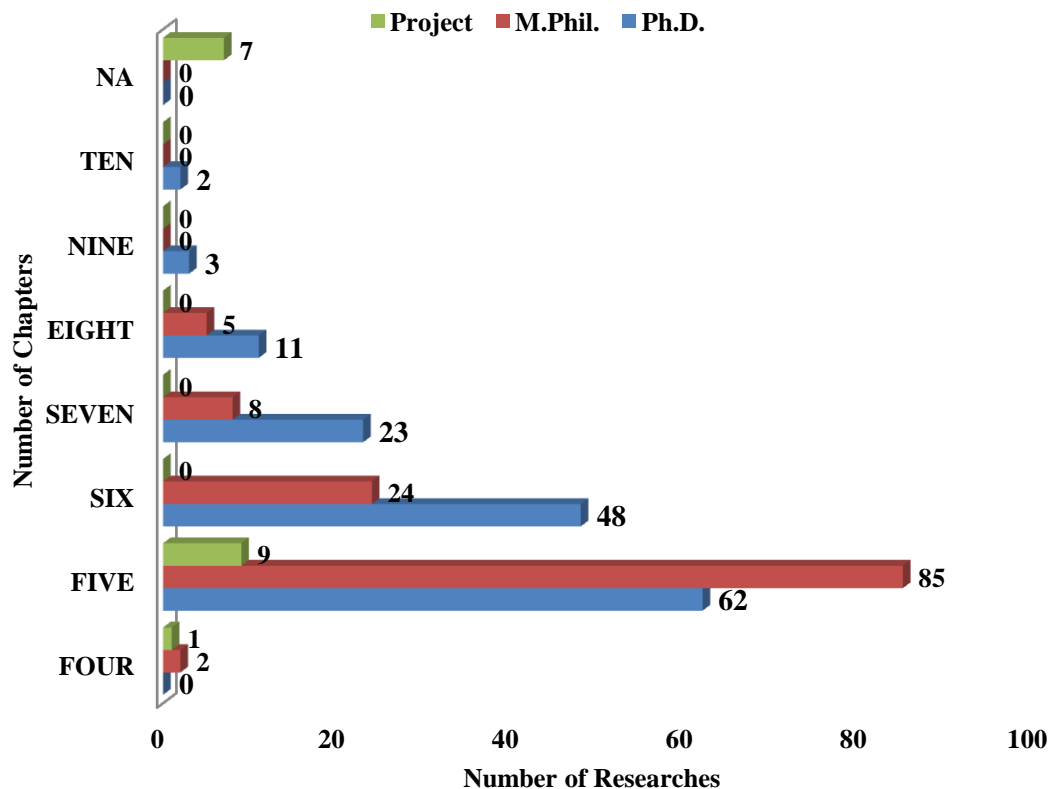
Table 4.18

Number of the chapters-wise details of the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014

SN.	Quality of Paper	Level of Research						Total	
		Ph.D.		M.Phil.		Project			
		N	%	N	%	N	%	N	%
1	Four	0	0.00	2	1.61	1	5.88	3	1.03
2	Five	62	41.61	85	68.55	9	52.94	156	53.79
3	Six	48	32.21	24	19.35	0	0.00	72	24.83
4	Seven	23	15.44	8	6.45	0	0.00	31	10.69
5	Eight	11	7.38	5	4.03	0	0.00	16	5.52
6	Nine	3	2.01	0	0.00	0	0.00	3	1.03
7	Ten	2	1.34	0	0.00	0	0.00	2	0.69
8	NA	0	0.00	0	0.00	7	41.18	7	2.41
Total		149	100.00	124	100.00	17	100.00	290	100.00

Graph 4.12

Number of the chapters-wise details of the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014



From Table 4.18 & Graph 4.12 it is evident that —

Out of 149 Ph.D. researches, maximum 62 (41.61 percent) researches were reported in Five Chapters. It was also found that in 48 (32.21 percent), 23 (15.44 percent), 11 (7.38 percent), 3 (2.01percent) and 2 (1.34 percent) number of researches were reported in Six, Seven, Eight, Nine and Ten Chapters respectively.

Out of total 124 M.Phil., maximum 85 (55.86 percent) researches were reported in Five Chapters. It was also found that in 2 (1.61 percent), 24 (19.35 percent), 8 (6.45 percent) and 5 (4.30 percent) number of researches were reported in Four, Six, Seven and Eight chapters respectively.

Out of the total 17 Research Projects, maximum 9 (52.94 percent) researches were reported in Five Chapters. It was also found that 1 (5.88 percent) project research was reported in four chapters and 7 (41.18 percent) projects no chapterization was done. (a Single report of the contents was given in these project reports).

Out of total 290 researches (Ph.D., M.Phil. and Project), maximum 156 (53.79 percent) researches were reported in Five Chapters. It was also found that in 3 (1.03 percent), 72 (24.83 percent), 31 (10.69 percent), 16 (5.52 percent), 3 (1.03 percent) and 2 (0.69 percent) number of researches were reported in Four, Six, Seven, Eight, Nine and Ten Chapters respectively. 7 (2.41 percent) researches were not chapterized.

It can be interpreted from the previously mentioned details that the majority (53.79 percent) of the researchers chapterized their researches in 5 Chapters. This could be the formula established in the School of Education, Devi Ahilya Vishwavidyalaya for reporting the educational researches *per se*. These five chapters were named, in general, as

1. Introduction
2. Review of Related studies
3. Research Methodology
4. Data Analysis and Interpretation
5. Findings, Summary, and Suggestions

Further, no uniformity in the number of the chapters reported in the research reports at the different levels of research conducted at the School of Education, Devi Ahilya Vishwavidyalaya has also seen in rest 134 (46.21 percent) researches. A subsequent analysis of the researches shows that more than six chapters found to have from philosophical and case study researches areas. While the Five and Six number of

chapters were found common in the survey, experimental and descriptive researches. The four numbers of the chapter were seen in the 2 M.Phil. researches and 1 Project research, in which the last chapter (Findings and Summary) was clubbed with Data Analysis and Interpretation.

4.5.3 ANALYSIS REGARDING THE AREA OF RESEARCHES

For analyzing this component of ‘Basic Information’ about the researches conducted at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014, Four items ‘Major Area’, ‘Minor Area’, ‘Level of Research’ and ‘School Subject in which study conducted,’ were placed in the *Educational Research Information and Review Schedule* (Appendix—B).

4.5.3.1 ANALYSIS OF RESEARCH WITH RESPECT TO MAJOR AND MINOR AREA OF RESEARCH

The research conducted at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014, was allocated a Major and a Minor area of study. The details of the Trend analysis of researches with respect to the Major and Minor area were mentioned earlier (Refer section 4.4.2, Section 4.4.2.1 and section 4.4.2.2).

4.5.3.2 ANALYSIS WITH RESPECT TO LEVEL OF EDUCATION

In this section the detail trend analysis regarding, at ‘Which level of education?’ the researches at the School of Education, Devi Ahilya Vishwavidyalaya, Indore were conducted, during 1964-2014. For this purpose, an item ‘Level of Education’ with five Options (Lower Primary Education, Upper Primary Education, Secondary Education, Higher Secondary Education, and Higher Education) was placed in the *Educational Research Information and Review Schedule* (Appendix—B). Table 4.19, Table 4.20, Graph 4.13, Graph 4.14 and Graph 4.15 depicts the scenario regarding the level of education covered in researches.

Table 4.19

Level of Education-wise, Level of Research-wise and Decade-wise distribution of research during 1964-2014

LoE	1964-1974			1975-1984			1985-1994			1995-2004			2005-2014			Total Ph.D.		Total M.Phil.		Total Project		TOTAL	
	a	b	c	a	b	c	a	b	c	a	b	c	a	b	c	a	a%	b	b%	c	c%	N	N%
LPE	0	0	0	1	0	0	1	0	0	4	0	0	3	2	0	9	6.04	2	1.61	0	0.00	11	3.79
UPE	0	0	0	1	0	0	3	4	0	2	0	0	4	2	0	10	6.71	6	4.84	0	0.00	16	5.52
SE	0	0	0	4	0	4	20	31	2	13	0	0	19	15	0	56	37.58	46	37.10	6	35.29	108	37.24
HSE	0	0	0	0	0	0	1	3	1	2	0	0	4	2	0	7	4.70	5	4.03	1	5.88	13	4.48
HE	1	0	0	7	0	5	17	47	3	20	1	1	22	17	1	67	44.97	65	52.42	10	58.82	142	48.97
Total	1	0	0	13	0	9	42	85	6	41	1	1	52	38	1	149	100.00	124	100.00	17	100.00	290	100.0
%	0.34	0.00	0.00	4.48	0.00	3.10	14.48	29.31	2.07	14.14	0.34	0.34	17.93	13.10	0.34	51.38	34.48	42.76	34.48	5.86	34.48	100.0	
LoR wise %	0.67	0.00	0.00	8.72	0.00	52.94	28.19	68.55	35.29	27.52	0.81	5.88	34.90	30.65	5.88	100		100		100			
Total	1			22			133			43			91									290	
%	0.34			7.59			45.86			14.83			31.38										100

Note: (i)LoR—Level of Research, a—Ph.D., b—M.Phil., c—Project (ii) LoE—Level of Education, (iii) LPE— Lower Primary Education, UPE— Upper Primary Education, SE—Secondary Education, HSE—Higher Secondary Education, HE—Higher Education

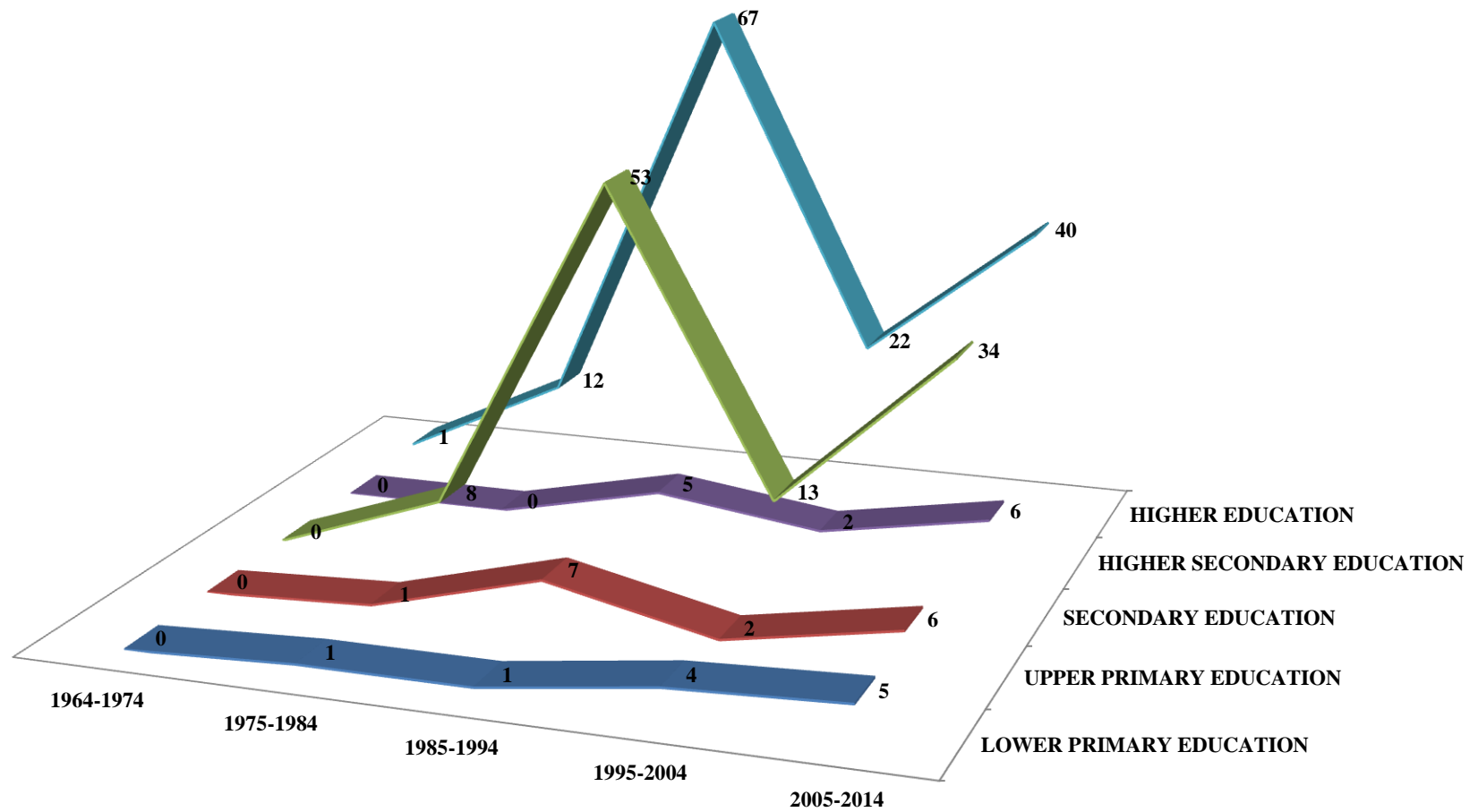
Table 4.20

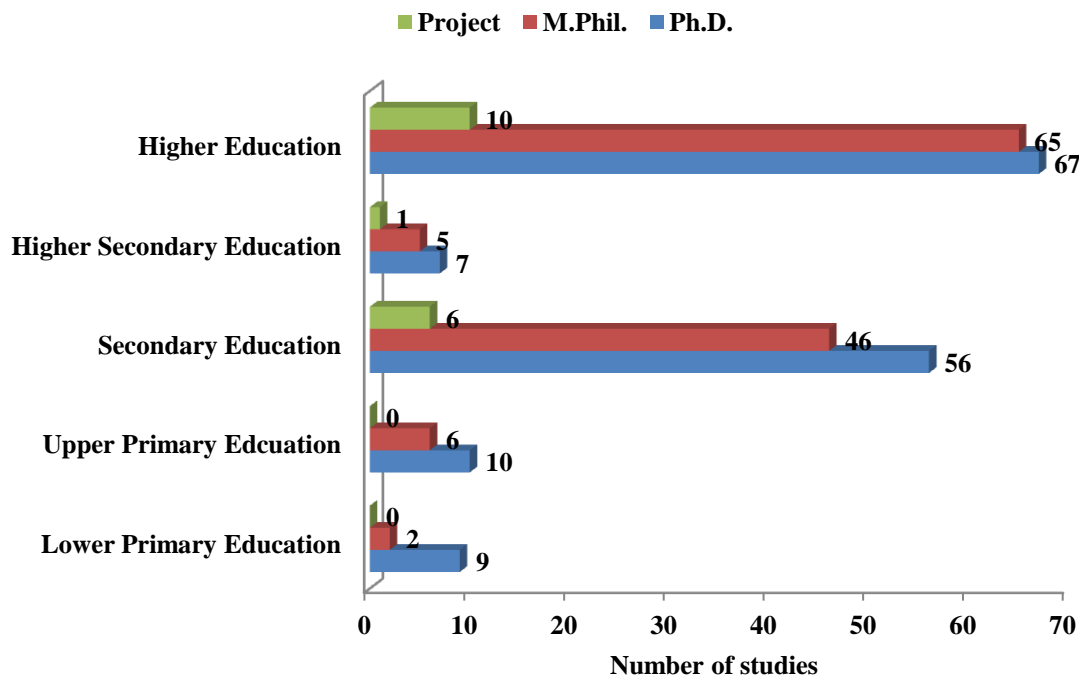
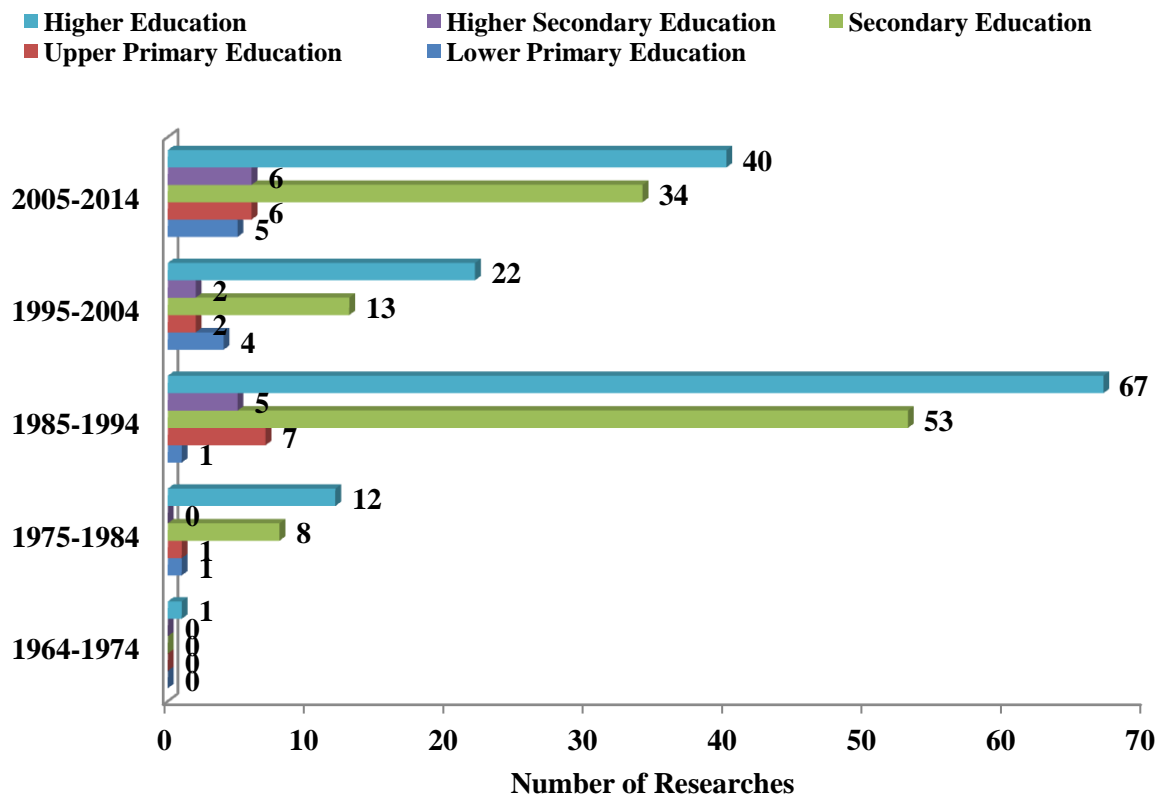
Level of Education-wise and Decade-wise distribution of research during 1964-2014

LEVEL	1964-1974		1975-1984		1985-1994		1995-2004		2005-2014		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Lower Primary Education	0	0.00	1	0.34	1	0.34	4	1.38	5	1.72	11	3.79
Upper Primary Education	0	0.00	1	0.34	7	2.41	2	0.69	6	2.07	16	5.52
Secondary Education	0	0.00	8	2.76	53	18.28	13	4.48	34	11.72	108	37.24
Higher Secondary Education	0	0.00	0	0.00	5	1.72	2	0.69	6	2.07	13	4.48
Higher Education	1	0.34	12	4.14	67	23.10	22	7.59	40	13.79	142	48.97
Total	1	0.34	22	7.59	133	45.86	43	14.83	91	31.38	290	100

Graph 4.13

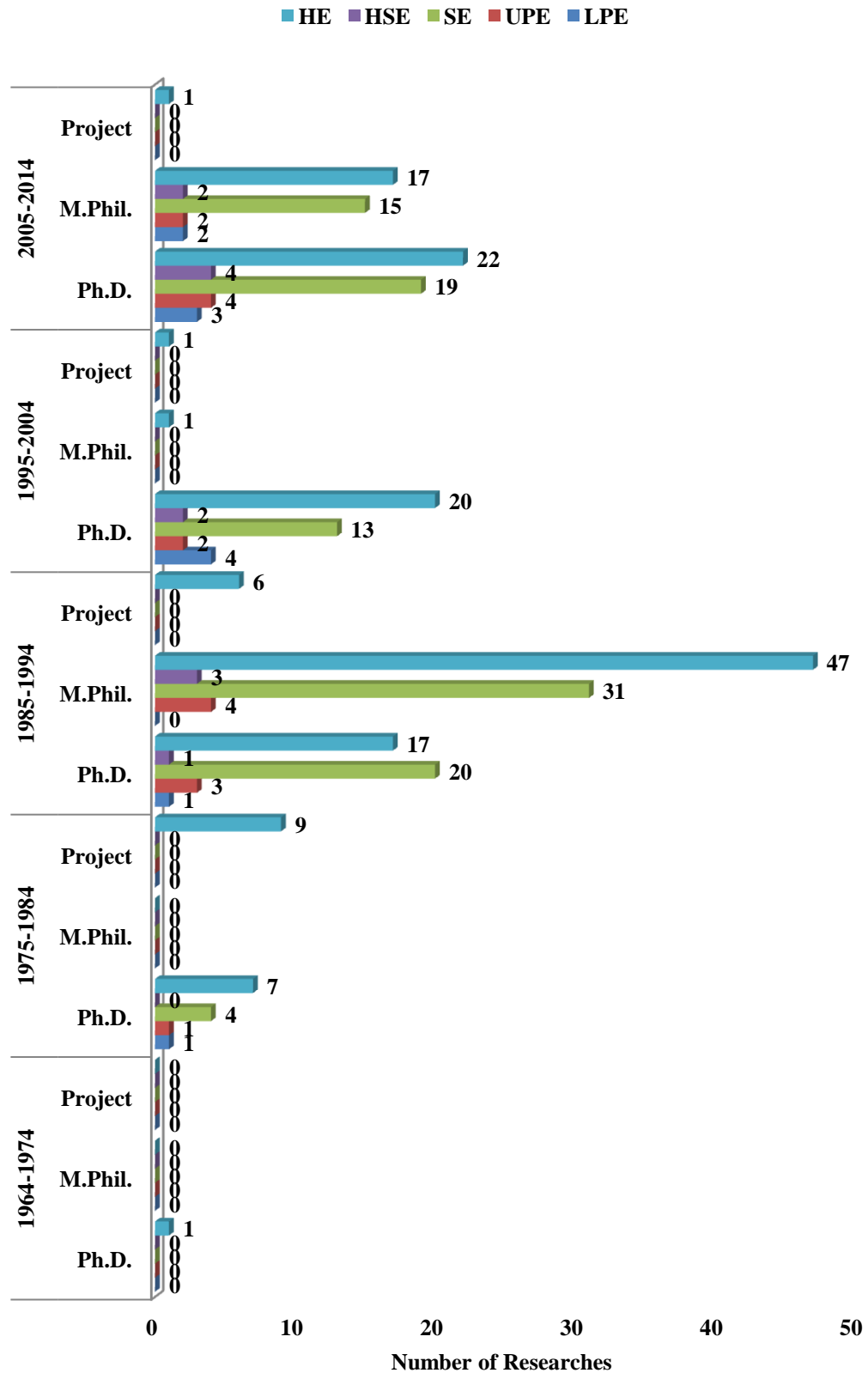
Level of Education-wise, Level of Research-wise and Decade-wise distribution of research during 1964-2014



Graph 4.14*Level of Education-wise distribution of researches during 1964-2014***Graph 4.15***Decade-wise distribution of researches during 1964-2014*

Graph 4.16

Decade-wise, Level of Research-wise and Level of Education-wise details of the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014



From Table 4.19, Table 4.20, Graph 4.13, Graph 4.14, Graph 4.15 and Graph 4.16, it is evident that

- Out of total 149 Ph.D. studies
 - Maximum 67 (44.97 percent) studies were conducted at the Higher Education level.
 - 56 (37.58 percent) studies were conducted at the Secondary Education level.
 - 10 (6.71 percent) studies were conducted at the Upper Primary Education level.
 - 9 (6.04 percent) studies were conducted at the Lower Primary Education level.
 - 7 (4.7 percent) studies were conducted at the Higher Secondary Education level.
- Out of the total 124 M.Phil. studies
 - Maximum 65 (52.42 percent) studies were conducted at the Higher Education level.
 - 46 (37.10 percent) studies were conducted at the Secondary Education level.
 - 6 (4.84 percent) studies were conducted at the Upper Primary Education level.
 - 5 (4.03 percent) studies were conducted at the Higher Secondary Education level.
 - 2 (1.61 percent) studies at the Lower Primary Level.
- Out of total 17 research projects
 - Maximum 10 (58.82 percent) studies were conducted at the Higher Education level.
 - 6 (35.29 percent) studies were conducted at the Secondary Education level.
 - 1 (5.88 percent) studies were conducted at the Higher Secondary Education level.
 - No studies were conducted at Lower Primary and Upper Primary Education level.
- Out of total 290 studies
 - Maximum 142 (48.97 percent) studies were conducted at the Higher Educational level, which includes 67 Ph.D., 65 M.Phil. and 10 Project studies.
 - 108 (37.24) studies were conducted at the Secondary Educational level, which includes 56 Ph.D., 46 M.Phil. and 6 Project studies.
 - 16 (5.52 percent) studies were conducted at the Upper Primary Educational level, which includes 10 Ph.D. and 6 M.Phil.

- 13 (4.48 percent) studies were conducted at the Lower Primary Educational level, which includes 7 Ph.D., 5 M.Phil. and 1 Project study.
- 11 (3.79 percent) studies were conducted at the Lower Primary Educational level, which includes 9 Ph.D. and 2 M.Phil.
- The decade 1985-1994 was found to be the ‘Golden time’ because maximum 133 (45.46 percent) studies were undertaken in the diversified levels of Education at different levels of research. These 133 studies include 42 Ph.D., 85 M.Phil. and 6 Projects.
- During the decade 1985-1994, 67 (24.14 percent) studies at Higher Education levels were conducted, which turn out to be the maximum at any particular Educational level on any level of research in the School of Education, Devi Ahilya Vishwavidyalaya, Indore. These 67 studies included 17 Ph.D., 47 M.Phil. and 3 Projects.
- During the same decade i.e. 1985-1994, 53 (17.59 percent) studies were carried out at the Secondary Education level.

Thus, Researches were conducted more at the Higher Education and Secondary Education levels. Fewer researches were conducted at the Lower Primary, Upper Primary and Upper Secondary levels of education as compared to the Higher education and Secondary Education level.

4.5.3.3 ANALYSIS WITH RESPECT TO SUBJECTS

In this section detail trend analysis regarding, in ‘Which Subject’ the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore was conducted, during 1964-2014. For this purpose, an item ‘Subject’ was placed in the *Educational Research Information and Review Schedule (Appendix—B)*.

In many studies, school subject or college subject can easily be identified. Thus, an attempt was made to identify subjects in the researches. A total of 39 subjects were identified in 290 studies. Table 4.21 and Graph 4.17 depicts the scenario regarding the Subjects used in the researches. From Table 4.21 and Graph 4.17, it is evident that

Out of a total of 149 Ph.D. studies, Maximum 21 (14.09 percent) studies were conducted on ‘Psychology of Education/ Educational Psychology’ as a subject. With 14 (9.4 percent) studies in ‘Value Education’ as a subject makes it the second most explored subject. As subject, ‘ET/ICT’ in 11 (7.38 percent) studies, ‘Educational Administration & Management’ and ‘Science’ in 10 (6.71 percent) studies,

‘Mathematics’ in 8 (5.37 percent) studies, ‘English Language’, ‘Hindi Language’, ‘Social Science’, ‘Teacher Education’ in 7 (4.7 percent) studies each, ‘Chemistry’ in 6 (4.30 percent) studies, ‘Biology’ and ‘Economics’ in 4 (2.68 percent) studies each, ‘Environment Education’, ‘Philosophy of Education’, ‘Primary Education’ and ‘Yoga Education’ in 3 (2.01 percent) studies each, ‘All Primary Subjects’, ‘Computer Education’, ‘Microteaching’, ‘Physics’, ‘Statistics’ in 2 (1.34) studies each were undertaken. Subjects like ‘Civics’, ‘Commerce’, ‘Distance Education’, ‘Guidance and Counseling’, ‘Journalism and Mass media’, ‘Music’, ‘Non-Formal Education’, ‘Oriya Language’, ‘Population Education’, ‘Reasoning’, ‘Sociology of Education’, ‘Vocational Education’ and ‘Adult Education’ in 1 (0.67 percent) studies each were undertaken, which was found to be the least preferable subject among researchers. The subjects viz. ‘Curriculum Development’, ‘Educational Research’, ‘Human Rights’, ‘Library Education’ and ‘Sanskrit Language’ were neglected at the Ph.D. level.

Out of the total 124 M.Phil. studies, Maximum 23 (18.55 percent) were carried out in the subject of ‘Psychology of Education/Educational Psychology/Psychology’. 18 (14.52 percent) studies were carried out using ‘Science’ subject, which makes it the second-most explored subject. With 11 (8.87 percent) studies in ‘Value Education’ makes it the third most explored subject. As subject, ‘Social Science’ in 9 (7.26 percent) studies, Philosophy in Education in 8 (6.45 percent) studies, ‘Educational Research’ and Mathematics’ in 7 (5.65 percent) studies each, ‘ET/ICT’ in 5 (4.03percent) studies, ‘English Language’, ‘Hindi Language’ and ‘Educational Administration & Management’ in 4 (3.23 percent) studies each, ‘Curriculum Development’, ‘Environment Education’ in 3 (2.42 percent) studies each; ‘All School Subjects’, ‘Commerce’, ‘Library Education’, ‘Teacher Education’ and ‘Primary Education’ in 2 (1.61 percent) studies; ‘Adult Education’, ‘Biology’, ‘Chemistry’, ‘Civics’, ‘Computer Education’, ‘Human Rights’, ‘Non-Formal Education’, ‘Sanskrit Language’, ‘Sociology of Education’, and ‘Vocational Education’ in 1 (0.81 percent) studies each were conducted. Subjects like ‘Distance Education’, ‘Economics’, ‘Guidance and Counseling’, ‘Journalism and Mass media’, ‘Microteaching’, ‘Music’, ‘Oriya Language’, ‘Physics’, ‘Population Education’, ‘Reasoning’, ‘Statistics’, and ‘Yoga Education’ were neglected subjects at the M.Phil. Level.

Table 4.21***Trend of research during 1964-2014 with respect to School Subject, Level of Research and Decades***

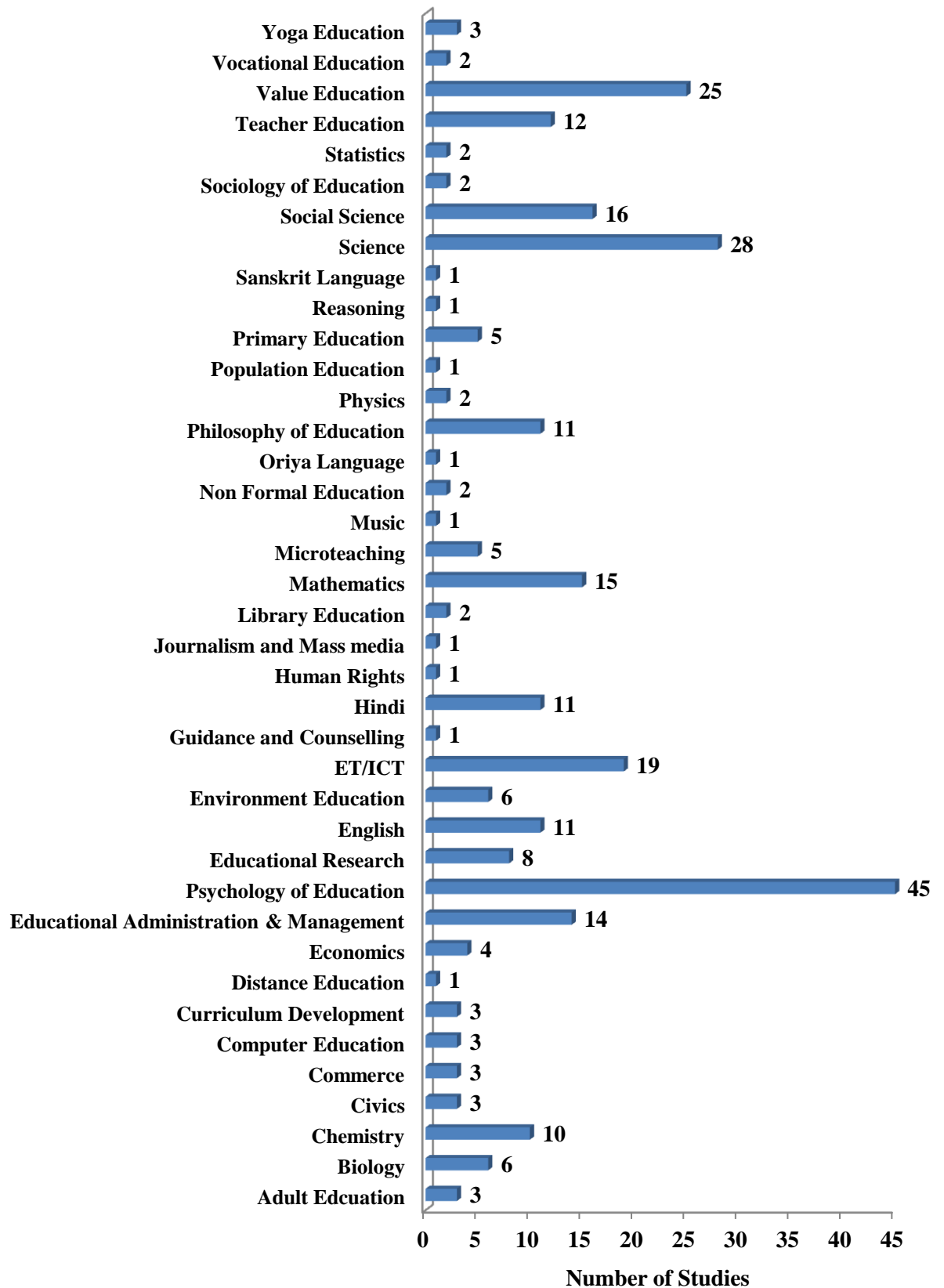
SN	Subjects	Years															Level							
		1964-1974			1975-1984			1985-1994			1995-2004			2005-2014			Ph.D.		M.Phil.		Project		Total	
		a	b	c	a	b	c	a	b	c	a	b	c	a	b	c	N	%	N	%	N	%	N	%
1	Adult Education	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	1	0.67	1	0.81	1	5.88	3	1.03
2	Biology	0	0	0	0	0	0	4	1	1	0	0	0	0	0	0	4	2.68	1	0.81	1	5.88	6	2.07
3	Chemistry	0	0	0	0	0	0	3	0	3	0	0	0	3	1	0	6	4.03	1	0.81	3	17.65	10	3.45
4	Civics	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	1	0.67	1	0.81	1	5.88	3	1.03
5	Commerce	0	0	0	0	0	0	0	2	0	0	0	0	1	0	0	1	0.67	2	1.61	0	0.00	3	1.03
6	Computer Education	0	0	0	0	0	0	2	0	0	0	0	0	0	1	0	2	1.34	1	0.81	0	0.00	3	1.03
7	Curriculum Development	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0.00	3	2.42	0	0.00	3	1.03
8	Distance Education	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0.67	0	0.00	0	0.00	1	0.34
9	Economics	0	0	0	0	0	0	1	0	0	3	0	0	0	0	0	4	2.68	0	0.00	0	0.00	4	1.38
10	Educational Administration & Management	1	0	0	0	0	0	1	4	0	4	0	0	4	0	0	10	6.71	4	3.23	0	0.00	14	4.83
11	Educational Research	0	0	0	0	0	0	0	2	0	0	0	0	0	5	1	0	0.00	7	5.65	1	5.88	8	2.76
12	English	0	0	0	0	0	0	0	3	0	4	0	0	3	1	0	7	4.70	4	3.23	0	0.00	11	3.79
13	Environment Education	0	0	0	0	0	0	1	1	0	1	0	0	1	2	0	3	2.01	3	2.42	0	0.00	6	2.07
14	ET/ICT	0	0	0	0	0	3	3	3	0	2	0	0	6	2	0	11	7.38	5	4.03	3	17.65	19	6.55
15	Guidance and Counselling	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0.67	0	0.00	0	0.00	1	0.34
16	Hindi	0	0	0	2	0	0	3	4	0	0	0	0	2	0	0	7	4.70	4	3.23	0	0.00	11	3.79
17	Human Rights	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.00	1	0.81	0	0.00	1	0.34
18	Journalism and Mass media	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0.67	0	0.00	0	0.00	1	0.34
19	Library Education	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0.00	2	1.61	0	0.00	2	0.69
20	Mathematics	0	0	0	1	0	0	1	4	0	1	0	0	5	3	0	8	5.37	7	5.65	0	0.00	15	5.17
21	Microteaching	0	0	0	0	0	3	2	0	0	0	0	0	0	0	0	2	1.34	0	0.00	3	17.65	5	1.72
22	Music	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0.67	0	0.00	0	0.00	1	0.34
23	Non Formal Education	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0.67	1	0.81	0	0.00	2	0.69

Continued on next page

Table 4.21 (continued)*Trend of research during 1964-2014 with respect to School Subject, Level of Research and Decades*

SN	Subjects	Years															Level							
		1964-1974			1975-1984			1985-1994			1995-2004			2005-2014			Ph.D.		M.Phil.		Project		Total	
		a	b	c	a	b	c	a	b	c	a	b	c	a	b	c	N	%	N	%	N	%	N	%
24	Oriya Language	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0.67	0	0.00	0	0.00	1	0.34
25	Philosophy of Education	0	0	0	0	0	0	1	4	0	0	0	0	2	4	0	3	2.01	8	6.45	0	0.00	11	3.79
26	Physics	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2	1.34	0	0.00	0	0.00	2	0.69
27	Population Education	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0.67	0	0.00	0	0.00	1	0.34
28	Primary Education	0	0	0	0	0	0	0	0	0	0	0	0	3	2	0	3	2.01	2	1.61	0	0.00	5	1.72
29	Psychology of Education	0	0	0	4	0	1	7	18	0	5	1	0	5	4	0	21	14.09	23	18.55	1	5.88	45	15.52
30	Reasoning	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0.67	0	0.00	0	0.00	1	0.34
31	Sanskrit Language	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0.00	1	0.81	0	0.00	1	0.34
32	Science	0	0	0	1	0	0	4	13	0	1	0	0	4	5	0	10	6.71	18	14.52	0	0.00	28	9.66
33	Social Science	0	0	0	1	0	0	1	7	0	4	0	0	1	2	0	7	4.70	9	7.26	0	0.00	16	5.52
34	Sociology of Education	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	1	0.67	1	0.81	0	0.00	2	0.69
35	Statistics	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	1.34	0	0.00	0	0.00	2	0.69
36	Teacher Education	0	0	0	2	0	1	1	2	1	4	0	1	0	0	0	7	4.70	2	1.61	3	17.65	12	4.14
37	Value Education	0	0	0	1	0	0	5	8	0	4	0	0	4	3	0	14	9.40	11	8.87	0	0.00	25	8.62
38	Vocational Education	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0.67	1	0.81	0	0.00	2	0.69
39	Yoga Education	0	0	0	0	0	0	0	0	0	1	0	0	2	0	0	3	2.01	0	0.00	0	0.00	3	1.03
Total		1	0	0	13	0	9	42	85	6	41	1	1	52	38	1	149	100.00	124	100.00	17	100.00	290	100.00

Note: (i) a—Ph.D., b—M.Phil, c—Project

Graph 4.17*Number of researches with respect to the subjects during 1964-2014*

Out of total 17 research projects, Maximum 3 (17.65 percent) studies were conducted in ET/ICT', 'Microteaching', 'Teacher Education' and 'Chemistry' subjects each. While only 1(5.88 percent) study each was carried out in the subjects of 'Psychology of Education', 'Educational Research', 'Adult Education', 'Biology' and 'Civics'. Rest all areas were given no attention.

Out of total 290 studies, Maximum 45 (15.52 percent) studies were conducted in the subject of 'Psychology of Education/Educational Psychology/Psychology'. While 'Science' subject was the second most popular subject among researchers, as 26 (8.97 percent) Studies were carried out with this subject.

As far as other subjects were concerned, in 'Value Education' 25 (8.62 percent) studies, in 'ET/ICT' 19 (6.55 percent) studies, in 'Social Science' 16 (5.52 percent) studies, in 'Mathematics' 15 (5.17 percent) studies, in 'Educational Administration and Management 13 (4.48 percent) studies, in 'Teacher Education' 12 (4.14 percent) studies, in 'Philosophy of Education', 'English Language' and 'Hindi Language' 11 (3.79 percent) studies each, in 'Educational Research' 8 (2.76 percent) studies, in 'Biology' and 'Environmental Education' 6 (2.07 percent) studies, in Microteaching' and 'Primary Education' 5 (1.72 percent) studies, 'All school subjects' and 'Economics' 4 (1.38 percent) studies, in Adult Education', 'Civic', 'Curriculum Development', 'Commerce', 'Computer Education' and 'Yoga Education' 3 (1.03 percent) studies, in 'Library Education', 'Non-Formal Education', 'Sociology of Education', 'Vocational Education', 'Physics' and 'Statistics' 2 (0.69 percent) studies each, in 'Human Rights', 'Sanskrit Language', 'Distance Education', 'Guidance and Counselling', 'Journalism and Mass Media', 'Music', 'Oriya Language', 'Population Education' and 'Reasoning' 1(0.34 percent) studies were carried out. The decade 1985-1994 was found to be the 'Golden time' because a maximum of 133 (45.46 percent) studies were undertaken in the diversified subjects at different levels of research. Overall, during 1964-2014, at the School of Education, Devi Ahilya Vishwavidyalaya, Indore researches were conducted in diversified school and college subjects.

4.5.4 ANALYSIS REGARDING REVIEW OF RELATED LITERATURE

For analyzing this component of review of related Literature in the Research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014, five items viz. *'Number of the Studies Reviewed'*, *'Time span of the Reviewed*

Studies, *'How research gaps identified and explained?'*, *'Is Implication from the previous research rationalized?'* And *'Overall Comments regarding the Reviewed Literature'* were placed in the *Educational Research Information and Review Schedule* (Appendix—B). Here these five items were analyzed as below.

4.5.4.1 ANALYSIS WITH RESPECT TO THE NUMBER OF STUDIES REVIEWED IN RESEARCH

For this, an item 'Number of Studies reviewed' was placed in the *Educational Research Information and Review Schedule* (Appendix—B). Table 4.22 & Graph 4.18 depicts the scenario regarding the Number of studies reviewed in researches. From Table 4.22 and Graph 4.18, it is evident that —

Out of 149 Ph.D. researches, in maximum 45 (30.2 percent) researches had reviewed 21-50 studies. It was also found that 37 (24.83 percent), 31 (20.81 percent), 23 (15.44 percent), and 3 (2.01 percent) researches had reviewed 1-20 studies, 51-70 studies, 71-100 studies, and more than 200 studies respectively. 101-150 studies and 151-200 studies were reviewed in 5 (3.36 percent) researches each.

Out of 124 M.Phil. researches, in maximum 43 (34.68 percent) researches had reviewed 21-50 studies. It was also found that 32 (25.81percent), 33 (26.61 percent), 14 (11.29 percent), and 2 (1.61 percent) researches had reviewed 21-50 studies, 71-100 studies, 71-100 studies, 1-20 Studies, and 100-150 studies respectively. More than 200 studies and 151-200 studies were not reviewed in any of the M.Phil. level research.

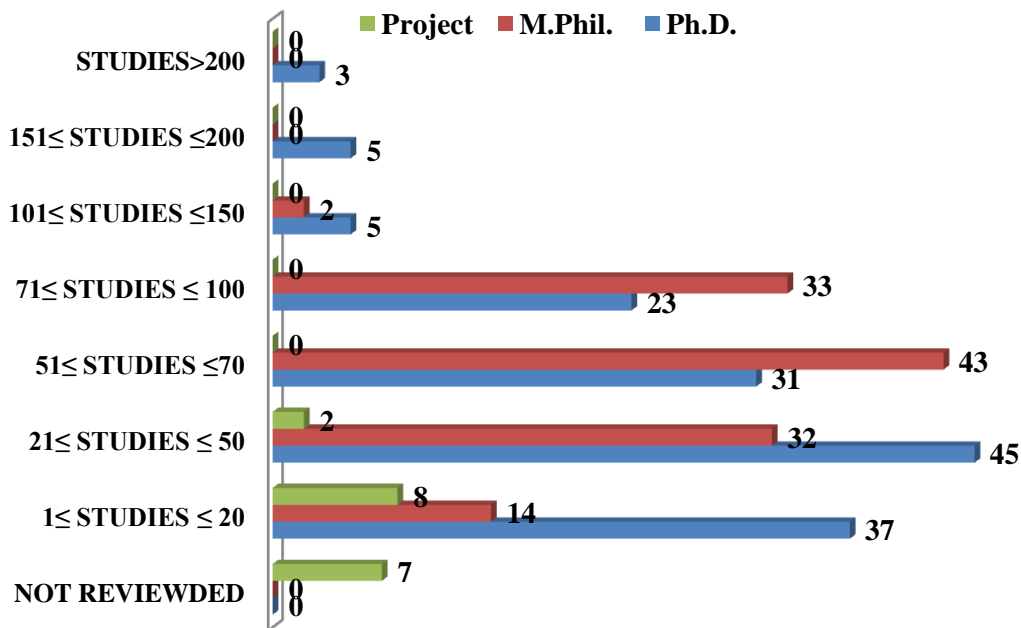
Table 4.22

Details of the researches at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014 with respect to Number of the studies reviewed in the research

S N	Reviewed Studies in Research	Ph.D.		M.Phil.		Project		Total	
		N	%	N	%	N	%	N	%
1	Not Reviewed	0	0.00	0	0.00	7	41.18	7	2.41
2	1≤ Studies ≤ 20	37	24.83	14	11.29	8	47.06	59	20.34
3	21≤ Studies ≤ 50	45	30.20	32	25.81	2	11.76	79	27.24
4	51≤ Studies ≤ 70	31	20.81	43	34.68	0	0.00	74	25.52
5	71≤ Studies ≤ 100	23	15.44	33	26.61	0	0.00	56	19.31
6	101≤ Studies ≤ 150	5	3.36	2	1.61	0	0.00	7	2.41
7	151≤ Studies ≤ 200	5	3.36	0	0.00	0	0.00	5	1.72
8	Studies > 200	3	2.01	0	0.00	0	0.00	3	1.03
	Total	149	100	124	100	17	100	290	100

Graph 4.18

Research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014 with respect to Number of the studies reviewed in the research



Out of 17 projects, in maximum 8 (47.06 percent) projects reviewed 1-20 studies. It was also found that no studies were reviewed in 7 (41.18 percent) projects. In 2 (11.76 percent) projects 21-50 studies were reviewed.

Out of a total of 290 researches (Ph.D., M.Phil. and Projects), maximum 21-50 studies were reviewed in 79 (27.24 percent) researches. It was also found that 59 (20.34 percent) reviewed 1-20 number of studies, 74 (25.52 percent) reviewed 51-70 number of studies, 7 (2.41 percent) reviewed 101-150 number of studies, 56 (19.31 percent) reviewed 71-100 studies and 5 (1.72 percent) reviewed 151-200 number of studies, 3 (1.03 percent) reviewed more than 200 studies. It was also found that 7 (2.41 percent) researches reviewed no studies.

Considering the importance of exhaustive review that helps in framing and implementing the research, the scenario of reviewing literature in terms of the number of studies, at the School of Education, Devi Ahilya Vishwavidyalaya was found to be mixed in nature as far as the different levels of research were concerned. At the Ph.D. level, the number of reviewed literature was found satisfactory as far as the number of the review studies was concerned but at M.Phil. and the Project level, it needs due consideration.

4.5.4.2 ANALYSIS WITH RESPECT TO THE TIME SPAN OF THE REVIEWED STUDIES

For this, an item ‘Time Span of the Reviewed studies’ was placed in the Educational Research Information and Review Schedule (Appendix—B) to find ‘How many years of review is incorporated in the Ph.D., M.Phil. and Project level research?’. Table 4.23 and Graph 4.19 show the scenario regarding the Time Span of the Reviewed studies in researches.

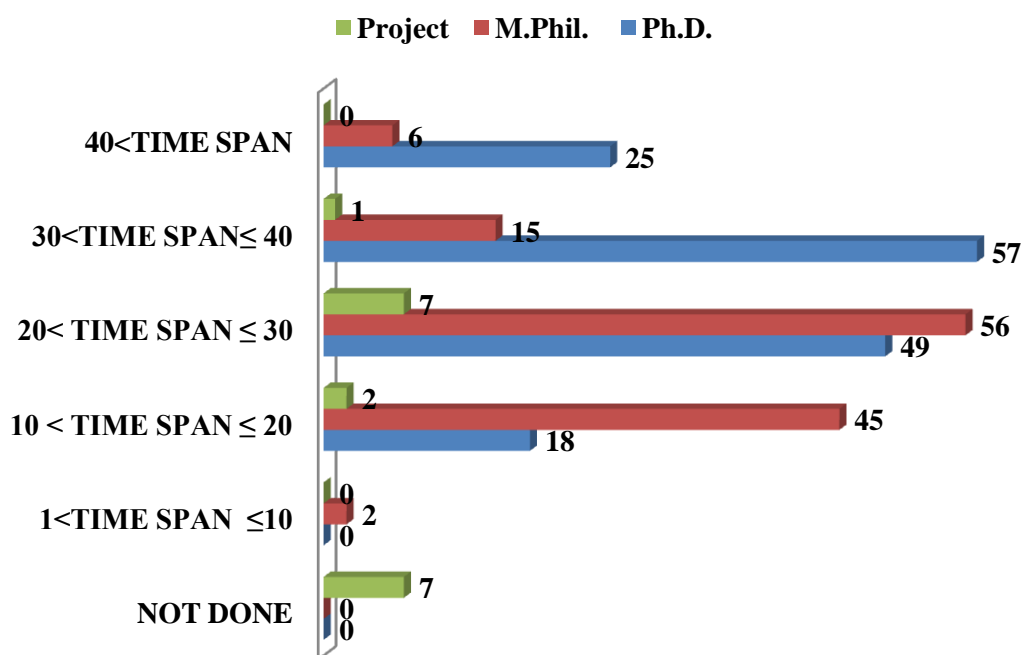
Table 4.23

Details of the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014 with respect to Time Span of the reviewed studies

SN	Time-span of the reviewed studies (in years)	Level of Research						Total	
		Ph.D.		M.Phil.		Project			
		N	%	N	%	N	%	N	%
1	NOT DONE	0	0.00	0	0.00	7	41.18	7	2.41
2	1<TIME SPAN ≤10	0	0.00	2	1.61	0	0.00	2	0.69
3	10 < TIME SPAN ≤ 20	18	12.08	45	36.29	2	11.76	65	22.41
4	20< TIME SPAN ≤ 30	49	32.89	56	45.16	7	41.18	112	38.62
5	30<TIME SPAN≤ 40	57	38.26	15	12.10	1	5.88	73	25.17
6	40<TIME SPAN	25	16.78	6	4.84	0	0.00	31	10.69
Total		149	100.00	124	100.00	17	100.00	290	100.00

Graph 4.19

Details of the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014 with respect to Time Span of the reviewed studies



From Table 4.23 and Graph 4.19, it is evident that —

Out of 149 Ph.D. researches, maximum 57 (38.26 percent) researches reviewed studies in the time span of 30-40 years, 49 (32.89 percent) researches reviewed studies in the time span of 20-30 years, 25 (16.78 percent) researches reviewed studies in the time span of more than 40 years, 18 (12.08 percent) researches reviewed studies in the time span of 10-20 years. No researches were found in the category of the researches that reviewed studies in the time span of 1-10 years and reviewed no study at all. Hence, it is evident that the maximum Ph.D. researches had reviewed studies over a good span of time 20-40 years and more than 40 years. Thus, the review of related literature was found covering old studies in maximum Ph.D. studies.

Out of 124 M.Phil. researches, maximum 56 (45.16 percent) of the researches reviewed studies in the time span of 20-30 years, 15 (12.10 percent) researches reviewed studies in the time span of 30-40 years, 6 (4.84 percent) researches reviewed studies in the time span of more than 40 years, 45 (36.29 percent) researches reviewed studies in the time span of 10-20 years. 2 (1.61 percent) researches were found in the category of the researches that reviewed studies in the time span of 1-10 years and No researches were found that reviewed no study at all. Hence it is evident that, maximum M.Phil. researches had reviewed studies over a good span of time between 10-30 years. Thus, the review of related literature was found covering old studies in maximum M.Phil. studies.

Out of 17 Projects, maximum 7 (41.18 percent) of the researches reviewed studies in the time span of 20-30 years. But at the same time, 7 (41.18 percent) of the researches were found that do not review any studies. 2 (11.76 percent) researches reviewed studies in the time span of 10-20 years. 1 (5.88 percent) researches were found that reviewed studies in the time span of 30-40 years and No researches were found that reviewed studies in the time span of 1-10 years and more than 40 years. Hence it is evident that maximum project researches had either reviewed studies over the span of time between 10-20 years or not reviews a single study. Thus, the review of related literature was found not satisfactory in maximum Project studies as far as the time span of the reviewed studies was concerned.

Out of Total 290 (Ph.D., M.Phil. and Projects) researches, maximum 112 (38.62 percent) researches reviewed the studies in the time span of 20-30 years, 73 (25.17 percent) of the researches reviewed the studies in the time span of 30-40 years,

65 (22.41 percent) researches reviewed the studies in the time span of 10-20 years, 31 (10.69 percent) researches reviewed the studies in the time span of more than 40 years. 2 (0.69 percent) of researches were found in the category of the researches that reviewed the studies in the time span of 1-10 years and 7 (2.41 percent) researches reviewed no study at all. Hence, it is evident that, maximum researches had to review research over a good span of time 10-40 years. Thus, the review of related literature was found covering old studies in maximum Ph.D. and M.Phil. researches but not in the Project researches.

It was clear from the above that Research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014, had given adequate attention in reviewing the literature as far as the time span of the reviewed studies was concerned at Ph.D. and M.Phil. level but not at the Project level.

4.5.4.3 ANALYSIS WITH RESPECT TO THE LATEST STUDIES REVIEWED

For this, an item 'Latest Reviewed studies' was placed in the Educational Research Information and Review Schedule (Appendix—B) to find 'Whether last five years review being incorporated in the Ph.D., M.Phil. and Project level research?'. The following table 4.24 and Graph 4.20 depicts the scenario regarding the 'Latest studies' reviewed in the researches.

From Table 4.24 and Graph 4.20, it is evident that—

Out of 149 Ph.D. researches, in 62 (41.61 percent) researches last five year reviews were incorporated but 87 (58.39 percent) researches did not review the last five years' studies. Hence, in the maximum number of Ph.D. researches latest reviews were not incorporated.

Out of 124 M.Phil. researches, in 46 (37.10 percent) researches last five year reviews were incorporated but in 78 (62.9 percent) researches last five years studies were not reviewed. Hence, in the maximum number of M.Phil. researches latest reviews were not incorporated

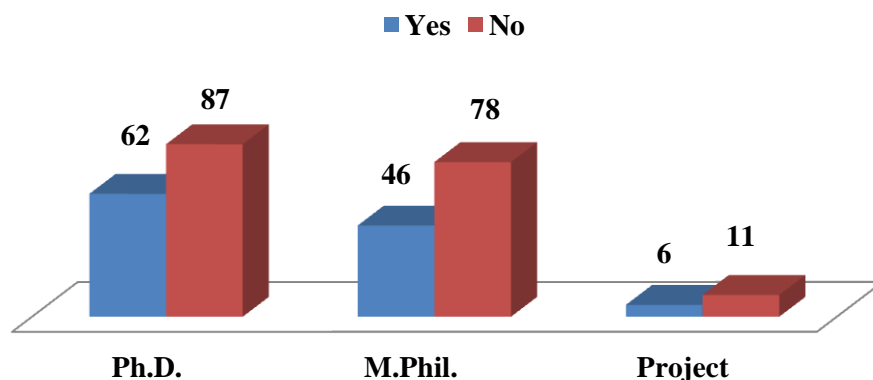
Table 4.24

Details of the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014 with respect to latest studies included

Table 6, during 1981-2017 with respect to latest studies included									
SN.	Last Five year Studies included	Level of Research						Total	
		Ph.D.		M.Phil.		Project			
		N	(%)	N	%	N	%	%	
1	Yes	62	41.61	46	37.10	6	35.29	114	39.31
2	No	87	58.39	78	62.90	11	64.71	176	60.69
	Total	149	100.00	124	100.00	17	100.00	290	100.00

Graph 4.20

Details of the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014 with respect to latest studies included



Out of 17 Project researches, in only 6 (17.65 percent) researches last five year reviews were incorporated but in 11 (82.35 percent) researches last five years studies were not reviewed. Hence, in the maximum number of Projects researches the latest reviews were not incorporated.

Out of 290 researches, in 114 (39.31 percent) researches, last five year reviews were incorporated but in 176 (60.69 percent) researches last five years studies were not reviewed. Hence, in the maximum number of researches latest reviews were not incorporated.

Hence, there was a lack of reporting/reviewing the latest studies at all level of research at the School of Education, Devi Ahilya University, Indore, during 1964-2014

4.5.4.4 ANALYSIS WITH RESPECT TO THE IDENTIFICATION AND EXPLANATION OF RESEARCH GAPS

For this an item ‘How Identification and Explanation of Research Gaps were done?’ with Five alternatives of the response viz. ‘Very Good’, ‘Good’, ‘Satisfactory’, ‘Bad’ and ‘Very Bad’, along with the reason for the choice, was placed in the Educational Research Information and Review Schedule (Appendix—B). Table 4.25 & Graph 4.21 depicts the scenario regarding Identification and Explanation of Research gaps in researches.

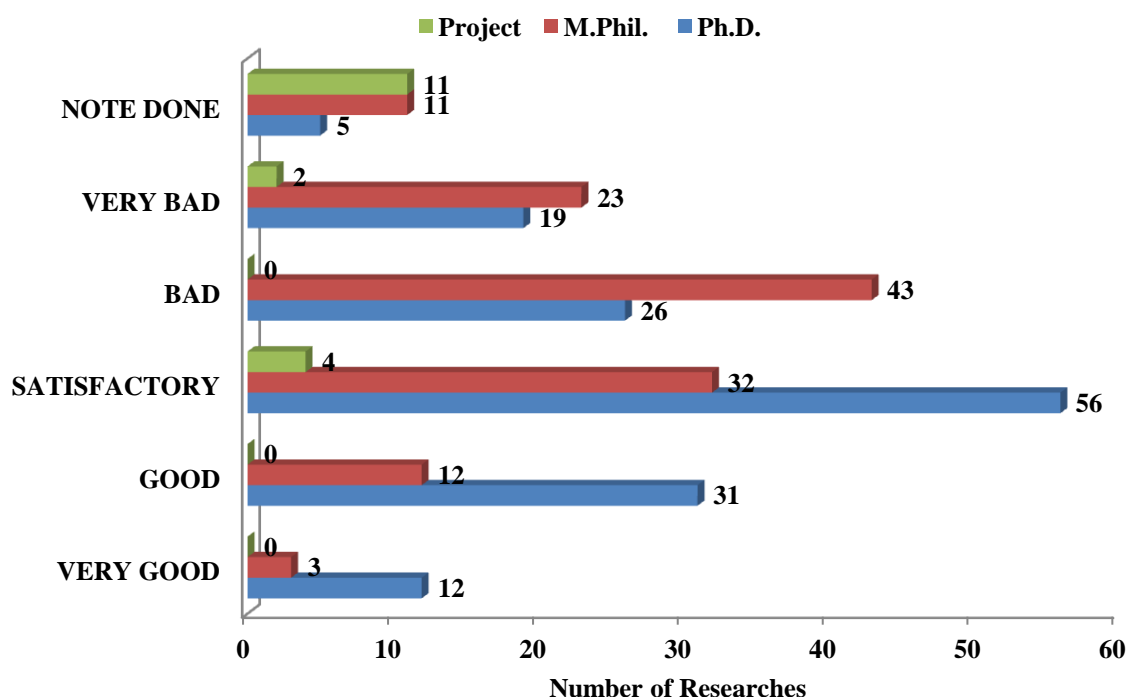
Table 4.25

Details of the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014 with respect to Identification and Explanation of Research gaps

SN	Research Gap Identified and Explain	Ph.D.		M.Phil.		Project		Total	
		N	%	N	%	N	%	N	%
1	Very Good	12	8.05	3	2.42	0	0.00	15	5.17
2	Good	31	20.81	12	9.68	0	0.00	43	14.83
3	Satisfactory	56	37.58	32	25.81	4	23.53	92	31.72
4	Bad	26	17.45	43	34.68	0	0.00	69	23.79
5	Very Bad	19	12.75	23	18.55	2	11.76	44	15.17
6	Note Done	5	3.36	11	8.87	11	64.71	27	9.31
Total		149	100.00	124	100.00	17	100.00	290	100.00

Graph 4.21

Details of the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014 with respect to Identification and Explanation of Research gaps



From Table 4.25 and Graph 4.21 it is evident that —

Out of 149 Ph.D. researches, in 56 (37.58 percent) researches Identification and Explanation of Research gaps were done of a satisfactory level. It was also found that Identification and Explanation of Research gaps were done, ‘Good’ in 31 (20.81 percent) researches, ‘Very Good’ in 12 (8.05 percent) researches, ‘Bad’ in 26 (17.45 percent) researches, ‘Very Bad’ in 19 (12.75 percent) researches. Identification and

Explanation of Research gaps were not done in 5 (3.36) percent of researches. Thus, considering the overall situation, Identification and Explanation of research gaps were found to be of 'Satisfactory' level as far as the researches at the Ph.D. level are concerned.

Out of 124 M.Phil. Researches, in maximum 56 (37.58 percent) researches Identification and Explanation of Research gaps were done of 'Bad' level. It was also found that Identification and Explanation of Research gaps were done, 'Good' in 31 (20.81 percent) researches, 'Very Good' in 3 (2.42 percent) researches, 'Very Bad' in 23 (18.55 percent) researches and were not done in 11 (8.87 percent) researches. Thus, considering the overall situation, Identification and Explanation of Research gaps were found to be not up to the satisfactory level as far as the M.Phil. researches are concerned.

Out of 17 Project researches, in maximum 4 (23.53 percent) researches Identification and Explanation of Research gaps were done of 'Satisfactory' level. It was also found that Identification and Explanation of Research gaps were done, 'Very Bad' in 2 (11.76 percent) researches and were not done in 11 (64.71 percent) researches. Thus, considering overall situation, Identification and Explanation of Research gaps were not up to the 'Satisfactory' level as far as Project researches are concerned.

Out of total 290 researches, in maximum 92 (31.72 percent) researches Identification and Explanation of Research gaps were done of 'Satisfactory' level. It was also found that Identification and Explanation of Research gaps were done, 'Bad' in 69 (23.79 percent) researches, 'Very Bad' in 44 (15.17 percent) researches, 'Good' in 43 (14.83 percent) researches, 'Very Good' in 15 (5.17 percent) researches, and were not done in 27 (9.31 percent) researches.

Considering the above, it is evident that Identification and Explanation of Research gaps were found to be satisfactory at the Ph.D. level but not up to a satisfactory level as far as the M.Phil. and Project researches. Overall, the situation of Identification and Explanation of Research gaps, in 150 (51.72 percent) was satisfactory, and in 140 (48.28 percent) not up to the satisfactory level as far as all researchers are a concern.

Therefore, there is a need for giving more attention to the component of Identification and Explanation of research gaps at all levels of research.

4.5.4.5 ANALYSIS WITH RESPECT TO THE RATIONALIZATION OF IMPLICATION FROM THE PREVIOUS RESEARCH

For this, an item ‘Is Implication from the previous research rationalized?’ with two choices viz. satisfactory and not satisfactory, along with the reason for the choice was placed in the Educational Research Information and Review Tool (Appendix—B). From Table 4.26 and Graph 4.22 it is evident that—

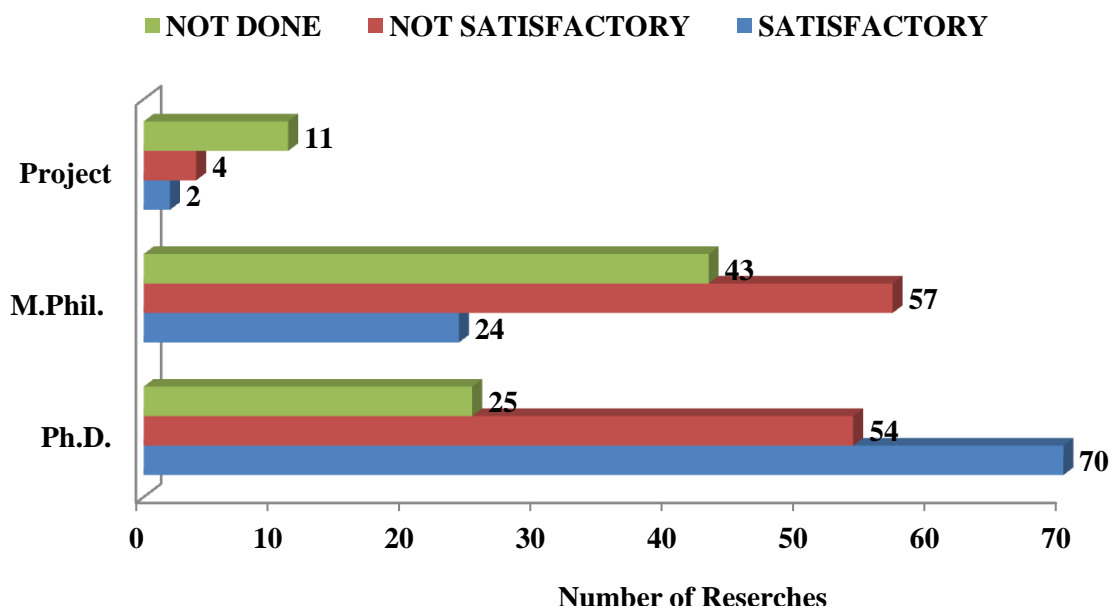
Table 4.26

Details of the research at the School of Education, Devi Ahilya Vishwavidyalaya during 1964-2014 with respect to Rationalization of Implication from the previous researches

SN	Implications	Ph.D.		M.Phil.		Project		Total	
		N	%	N	%	N	%	N	%
1	Satisfactory	70	46.98	24	19.35	2	11.76	96	33.10
2	Not Satisfactory	54	36.24	57	45.97	4	23.53	115	39.66
3	Not Done	25	16.78	43	34.68	11	64.71	79	27.24
	Total	149	100.00	124	100.00	17	100.00	290	100.00

Graph 4.22

Details of the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014 with respect to Rationalization of Implication from the previous researches



Out of 149 Ph.D. researches, Rationalization of Implication from the previous Researches was found at ‘satisfactory’ level in 70 (46.98 percent) researches and was found ‘not satisfactory’ in 54 (36.24 percent) researches. Although there were 25 (16.78 percent) studies where the Rationalization of Implication from the previous researches was not done even though the previous researches were written.

Out of 124 M.Phil. researches, Rationalization of Implication from the previous Researches was found at 'satisfactory' level in 24 (19.15 percent) researches and was found 'not satisfactory' in 57 (45.97 percent) researches. Although there were 43 (34.68 percent) studies where the Rationalization of Implication from the previous researches was not done even though the previous researches were written.

Out of 17 Projects, the Rationalization of Implication from the previous Researches was found at 'not satisfactory' level in 4 (23.53 percent) researches and was found 'satisfactory' in 2 (11.76 percent) projects. Although there were 11 (64.71 percent) studies where the Rationalization of Implication from the previous researches was not done even though the previous researches were written.

Out of Total 290 (Ph.D., M.Phil. and Projects) researches, the Rationalization of Implication from the previous Researches was found at 'not satisfactory' level in 115 (39.66 percent) researches and was found 'satisfactory' in 96 (33.10 percent) projects. Although there were 79 (27.24 percent) studies where the Rationalization of Implication from the previous Researches was not done even though the previous researches were written.

Concluding the aforesaid, for the component of Rationalization of Implications from the previous researches, Ph.D. researches was in a good position in rationalizing implication from previous researches, while the situation was found to be paying some attention in the area of Rationalization of Implications from the previous researches in M.Phil. and Project researches because only 33.1 percent of research was found in the category of satisfactory. Overall, the scenario was found that some attention is needed to write properly for the Rationalization of Implications from the previous researches.

4.5.4.6 ANALYSIS WITH RESPECT TO THE OVERALL COMMENTS REGARDING THE REVIEWED OF RELATED LITERATURE

For this, an item 'Overall comment regarding the Reviewed literature' with five choices viz 'Very Good', 'Good', 'Satisfactory', 'Bad' & 'Very Bad', along with the reason for the choice, was placed in the *Educational Research Information and Review Schedule* (Appendix—B). The kind of errors done by these researches in reporting Review of related Literature/Studies at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014 was also listed. Table 4.27 &

Graph 4.22 depicts the scenario regarding the Overall comments regarding the Reviewed of Related Literature in researches.

Out of 149 Ph.D. researches, the overall Review of Related Literature was found 'Satisfactory' in 54 (36.24 percent) researches. While the overall review of related literature scenario was found 'Good' in 34 (22.82 percent) researches, was found 'Very Good' in 16 (10.74 percent) researches, found 'Bad' in 25 (16.78 percent) researches, and 'Very Bad' in 20 (13.42 percent) research. Thus, the overall scenario of Review of Related Literature at Ph.D. level was found to be of 'Satisfactory' level as 69.8 percent of researches was found to be of 'Satisfactory' and more than 'Satisfactory' level. But still, some attention was needed to be given to strengthening the Rationalization of Implications from the previous researches.

Table 4.27

Details of the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014 with respect to Overall comments regarding the Reviewed of Related Literature

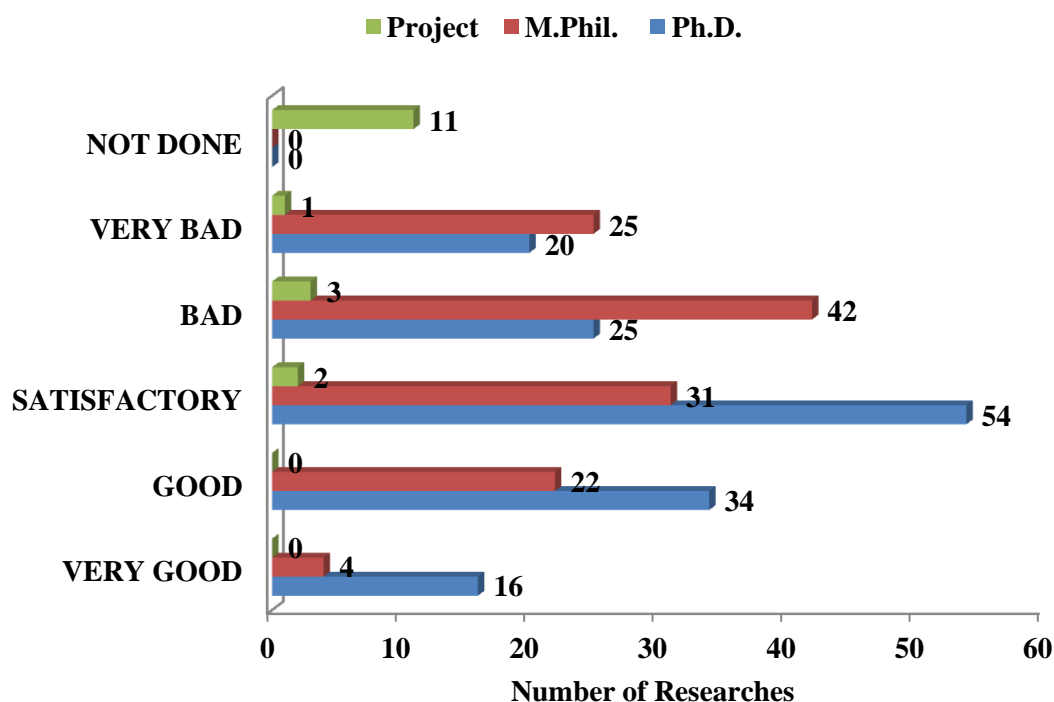
SN	Over All Comment on Review of Related Literature	Ph.D.		M.Phil.		Project		Total	
		N	%	N	%	N	%	N	%
1	Very Good	16	10.74	4	3.23	0	0.00	15	5.17
2	Good	34	22.82	11	8.87	0	0.00	45	15.52
3	Satisfactory	54	36.24	31	25.00	2	11.76	87	30.00
4	Bad	25	16.78	42	33.87	3	17.65	70	24.14
5	Very Bad	20	13.42	25	20.16	1	5.88	46	15.86
6	Note Done	0	0.00	11	8.87	11	64.71	27	9.31
Total		149	100.00	124	100.00	17	100.00	290	100.00

Out of 124 M.Phil. researches, overall Review of Related Literature was found 'Satisfactory' in 31 (25 percent) researches. While the overall review of related literature scenario was found 'Good' in 22 (17.74 percent) researches, was found 'Very Good' in 4 (3.23 percent) researches, found 'Bad' in 42 (33.87 percent) researches, and 'Very Bad' in 25 (20.16 percent) research. In 11 (8.87 percent) researches review of related literature was not done properly. Thus, the overall scenario of the review of related literature at M.Phil. level researches were found to be of not up to 'Satisfactory' level, as only 45.97 percent of researches was found to be of satisfactory and above level. But still, some attention was needed to be given to strengthening the Rationalization of Implications from the previous researches.

Out of 17 Projects, the overall Review of Related Literature was found 'Satisfactory' in only 2 (11.76 percent) researches. While the overall review of the related literature scenario was found 'Good' in 11 (8.87 percent) researches, was found 'Bad' in 3 (17.65percent) researches, 'Very Bad' in 1 (5.88 percent) research. In 11 (64.71 percent) researches review of related literature was not done properly. Thus, the overall scenario of the review of related literature at the Project level researches was found to be of not up to 'Satisfactory' level, as only 11.76 percent researches were found to be of 'Satisfactory' level as far as overall comments regarding review of related literature were concerned. But still, some attention was needed to be given to strengthen the rationalization of implications from the previous researches.

Graph 4.23

Details of the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014 with respect to overall comments regarding the Reviewed of Related Literature



Out of total 290 (Ph.D., M.Phil. and Project) researches, overall Review of Related Literature was found 'Satisfactory' in 87 (30 percent) researches. While the overall review of related literature scenario was found 'Good' in 45 (15.52 percent) researches, was found 'Very Good' in 15 (5.17 percent) researches, found 'Bad' in 70 (24.14 percent) researches, and 'Very Bad' in 46 (15.86 percent) research. In 27 (9.31 percent) researches review of related literature was not done properly. Thus, the

overall scenario of Review of Related Literature in researches at the School of Education, Devi Ahilya Vishwavidyalaya, Indore was found to be of not up to 'Satisfactory' level, as only a total of 56.21 percent researches were found to be of 'Satisfactory' or above level. But still, some attention was needed to be given to strengthen the Rationalization of Implications from the previous researches.

Also at the same time, the kind of errors done by these researches at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014 was also recorded. Conceptualizing these Comments/errors the overall comments about the Review of the Related Literature was done.

From the analysis the Review of the Related Literature, it is evident that the errors like Latest studies were not reviewed; Studies were not in chronological order; studies were not referenced properly; only departmental studies were reviewed; Implications were not drawn; Research Gaps are not identified; Mismatch between rationale and Review of related literature; Proper referencing style was not used; in-text citations missing; incomplete review; language and Grammatical Errors were there; Foreign studies were not reviewed; Number was given to the studies; Findings were not found in some studies; Abstracts not written properly; Some reviewed studies were in Hindi while some in English; Separate heads were not used in some studies; and only a Few studies were reviewed; dominates the researches which lead to the dissatisfactory level of the Review of the Related Literature. These errors were found in the majority of the researches at all levels of research.

4.5.5 ANALYSIS REGARDING METHODOLOGY OF THE RESEARCH

For analyzing this component of Methodology followed in the research at the School of Education, Devi Ahilya Vishwavidyalaya during 1964-2014, five items viz. 'Kind of Research (Basic/Pure, Applied, or Action)', 'Kind of Research (Quantitative, Qualitative, or Mixed)', 'Explanation of the terms was there?', 'Operationalization of the terms was there?' and 'type of Hypothesis' were placed in the *Educational Research Information and Review Schedule* (Appendix—B). Here these five items were analyzed as below.

4.5.5.1 ANALYSIS WITH RESPECT TO THE KIND OF RESEARCH BASED ON BASIC/PURE, APPLIED AND ACTION RESEARCH

For this, an item 'Kind of Research' with the options of Basic/ Pure, Applied and Action research, was placed in the *Educational Research Information and Review schedule*. The following Table 4.28, Graph 4.24, Graph 4.25 and Graph 4.26 depict the situation regarding the kind of research conducted at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014.

Table 4.28

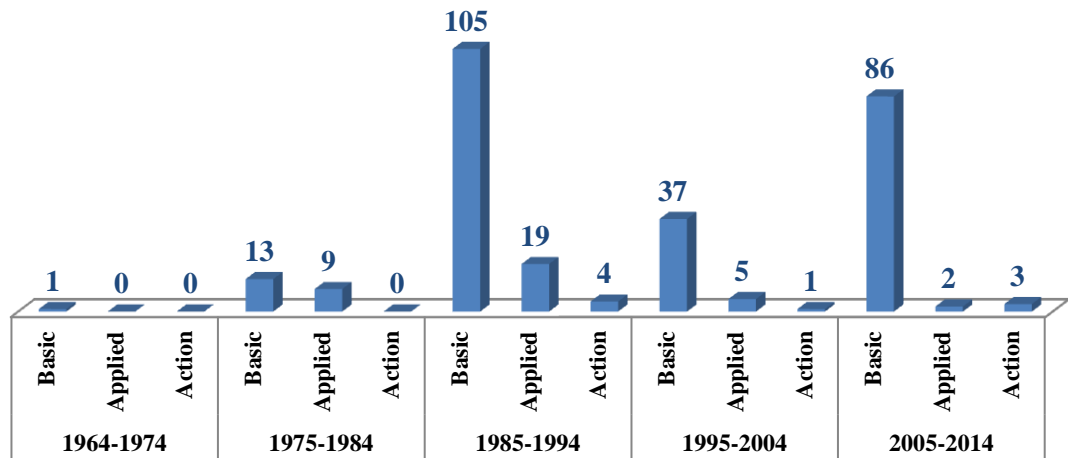
Trend of research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014 with respect to Kind and Level of Research

Years	Level	Kind of Research			Total
		Basic	Applied	Action	
1964-1974	Ph.D.	1	0	0	1
	M.Phil.	0	0	0	0
	Project	0	0	0	0
1975-1984	Ph.D.	10	3	0	13
	M.Phil.	0	0	0	0
	Project	3	6	0	9
1985-1994	Ph.D.	33	7	2	42
	M.Phil.	71	12	2	85
	Project	1	5	0	6
1995-2004	Ph.D.	36	5	0	41
	M.Phil.	1	0	0	1
	Project	0	0	1	1
2005-2014	Ph.D.	49	2	1	52
	M.Phil.	37	0	1	38
	Project	0	0	1	1
Overall	Ph.D.	129	17	3	149
	Ph.D. %	86.58	11.41	2.01	100.00
	M.Phil.	109	12	3	124
	M.Phil. %	87.90	9.68	2.42	100.00
	Project	4	11	2	17
	Project %	23.53	64.71	11.76	100.00
	Total	242	40	8	290
	Total %	83.45	13.79	2.76	100.00

As reported in the studies and for convenience, it was considered that Case studies, Philosophical researches, Evaluative studies, Survey studies, Curriculum Development studies, Psychometric related studies constituted the Pure/Basic researches. While the researches in which Use of Models of Teaching/ Development and implementation of different teaching Methods/Strategy of teaching, Module Making (PLM / BPLMs, etc), Teaching Material Developed, and Computer-Assisted

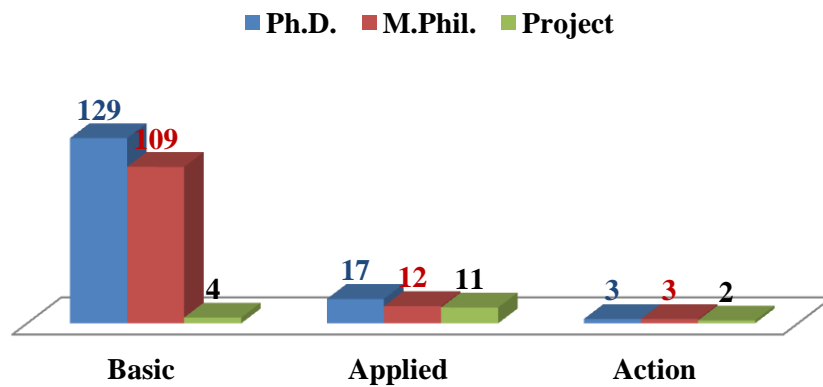
Graph 4.24

Details of the researches during 1964-2014 w. r. t. Kind of Research



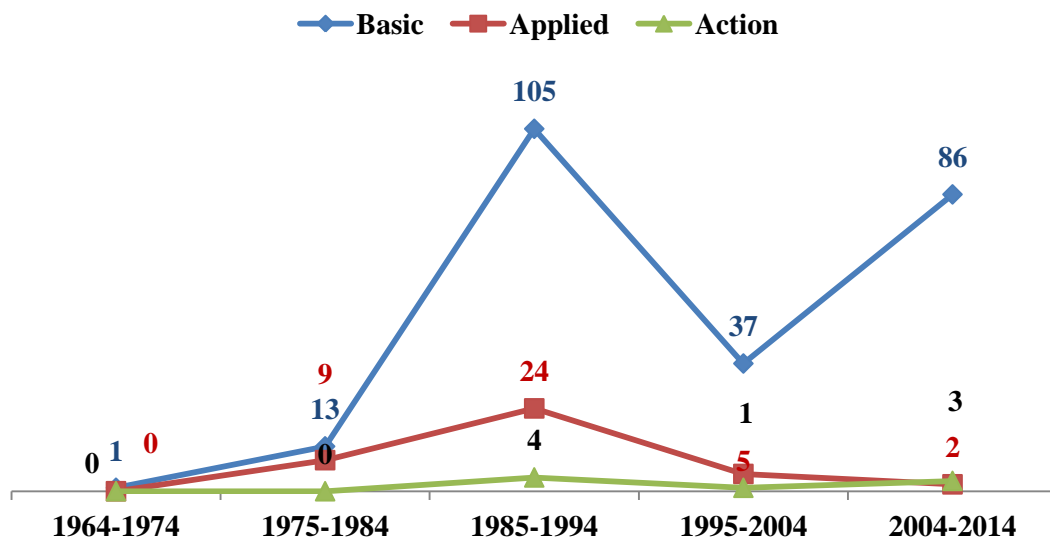
Graph 4.25

Level wise details of the researches during 1964-2014 w. r. t. Kind of Research



Graph 4.26

Trend details of the researches during 1964-2014 w. r. t. Kind of Research



Instruction/Web-Based Instruction Teaching material Developed was considered in the field of Applied type of research. On the other hand, Diagnostic and Database creation was found to be in the field of Action research.

From Table 4.29, Graph 4.24, Graph 4.25 and Graph 4.26, it is evident that —

Out of 149 Ph.D. researches, 129 (86.45 percent) researches were found to be of Fundamental kind, while 17 (11.41 percent) of researches were found to be of Applied type and rest 3 (2.01 percent) of researches were of Action type.

Out of 124 M.Phil. researches, 109 (87.9 percent) researches were found to be of Fundamental kind, while 12 (9.68 percent) of researches were found to be of Applied type and rest 3 (2.42 percent) of researches were of Action type.

Out of 17 Project researches, 4 (23.53 percent) researches were found to be of Fundamental kind, while 11 (64.71 percent) of researches were found to be of Applied type and rest 2 (11.76 percent) of researches were of Action type.

Out of 290 (Ph.D., M.Phil. and Project) researches, 242 (83.45 percent) researches were found to be of Fundamental kind, while 40 (13.79) percent of researches were found to be of Applied type and rest 8 (2.76 percent) of researches were of Action type.

From the trend of research with respect to the Level of research and Kind of research, it was found that, at each level of the research, Basic research Methodology was found to be dominating the Applied and Action research methodology throughout the years during 1964-2014. The trend of research with respect to the kind of research clearly indicates that the Basic type of research was found to be dominating Applied and Actions methodological research throughout the years during 1964-2014.

Overall the scenario of Basic/ Pure research was found satisfactory but the action research component was totally neglected at research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014.

4.5.5.2 ANALYSIS WITH RESPECT TO THE KIND OF RESEARCH BASED ON QUALITATIVE, QUANTITATIVE AND MIXED REALMS

For this, an item ‘Kind of Research’ with the options of Quantitative, Qualitative and Mixed method of research, was placed in the *Educational Research Information and Review Schedule* (Appendix—B). Table 4.29, Graph 4.27, Graph

4.28 & Graph 4.29 depicts the situation regarding the kind of research in researches. From Table 4.29, Graph 4.27, Graph 4.28 and Graph 4.29, it is evident that—

Out of 149 Ph.D. researches, 134 (89.93 percent) researches were of Quantitative Nature, 11 (7.38 percent) researches were of Qualitative nature and rest 4 (2.68) uses the Mixed Methodology.

Out of 124 M.Phil. researches, 99 (79.84 percent) researches were of Quantitative Nature, 19 (15.32 percent) researches were of Qualitative nature and the remaining 6 (4.84) uses the Mixed Methodology.

Out of 17 Project Researches, 16 (94.12 percent) researches was of Quantitative Nature, 1 (5.88 percent) research was of Qualitative nature and no researchers were found uses the Mixed Methodology.

Table 4.29

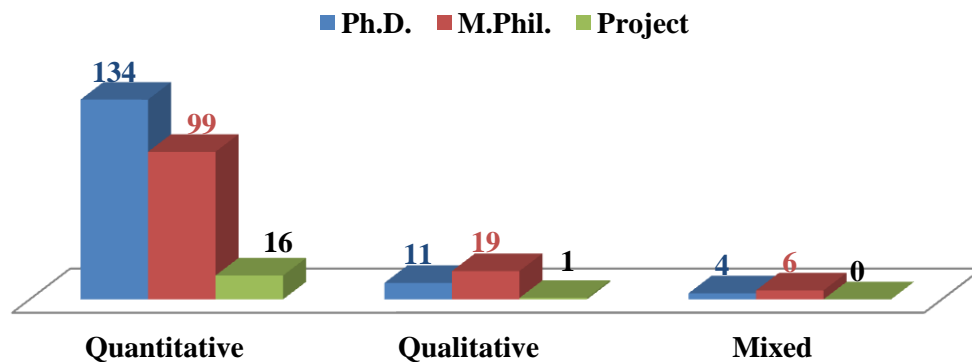
Trend of the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014 with respect to Kind and Level of Research

Years	Level	Nature of Research			Total
		Quantitative	Qualitative	Mixed	
1964-1974	Ph.D.	0	1	0	1
	M.Phil.	0	0	0	0
	Project	0	0	0	0
1975-1984	Ph.D.	13	0	0	13
	M.Phil.	0	0	0	0
	Project	8	1	0	9
1985-1994	Ph.D.	36	6	0	42
	M.Phil.	66	14	5	85
	Project	6	0	0	6
1995-2004	Ph.D.	35	2	4	41
	M.Phil.	1	0	0	1
	Project	1	0	0	1
2005-2014	Ph.D.	50	2	0	52
	M.Phil.	32	5	1	38
	Project	1	0	0	1
Overall	Ph.D.	134	11	4	149
	Ph.D. %	89.93	7.38	2.68	100
	M.Phil.	99	19	6	124
	M.Phil. %	79.84	15.32	4.84	100.00
	Project	16	1	0	17
	Project %	94.12	5.88	0.00	100.00
	Total	249	31	10	290
	Total %	85.86	10.69	3.45	100.00

Out of total 290 (Ph.D., M.Phil. and Project) researches, 249 (85.86 percent) researches were of Quantitative Nature, 31 (10.69 percent) were of Qualitative nature and the remaining 10 (3.45) uses the Mixed Methodology.

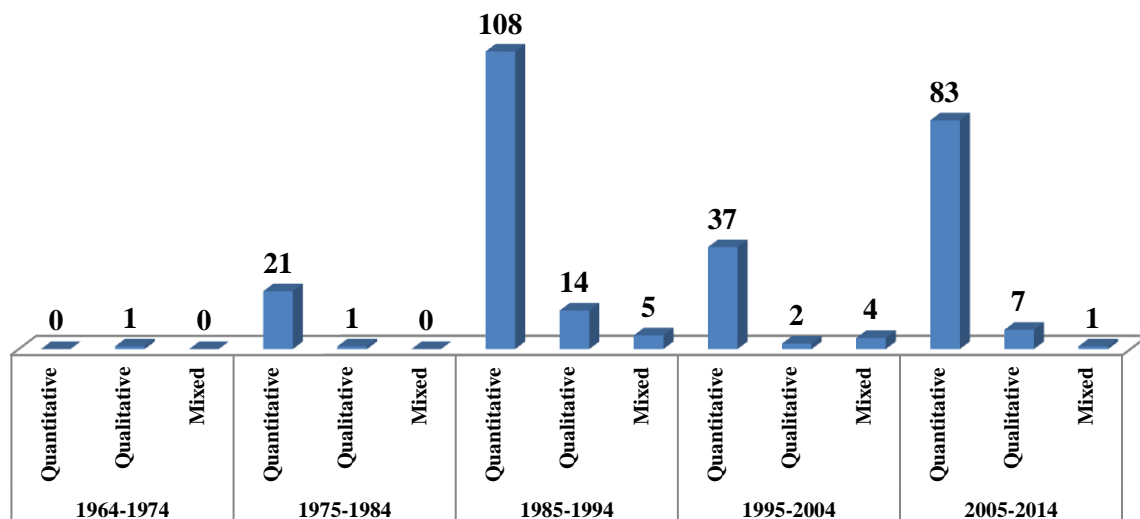
.Graph 4.27

Research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014, w. r. t Nature (based on data) and Level of Research



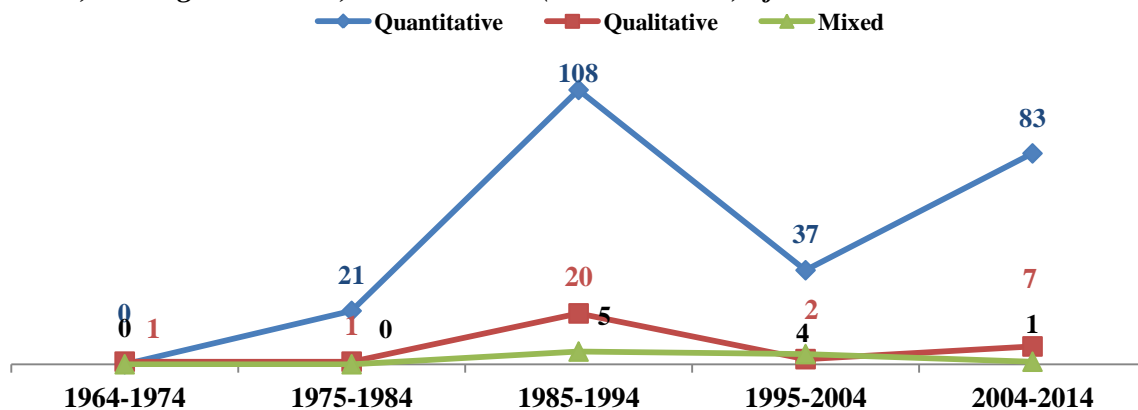
Graph 4.28

Decade wise details of research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014, w. r. t Nature (based on data) of Research



Graph 4.29

Trend of research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014, w. r. t Nature (based on data) of research



From the trend of research with respect to the Level of research and Nature of research, it was found that at each level of the research, Quantitative research methods were found dominating the Qualitative and Mixed methodologies research, throughout the years during 1964-2014. The trend of research with respect to the Nature of research, clearly, indicates that the Qualitative research Methodology was found to be dominating Qualitative and Mixed methodological research throughout the years during 1964-2014. Overall, from the aforesaid, Mixed and Qualitative method research was found giving less weight or say given less attention. While Quantitative method of research was found popular among researchers & teachers and dominated the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014, as compared to the qualitative and mixed research.

4.5.5.3 ANALYSIS WITH RESPECT TO EXPLANATION AND OPERATIONALISATION OF THE TERMS

For this, two items ‘Is Explanation of the term was there?’ and ‘Is Operationalization of the term was there?’ with the options of Yes/No, were placed in the *Educational Research Information and Review Schedule* (Appendix—B). Table 4.31, Graph 4.29, Graph 4.30. and Graph 4.31 depicts the situation regarding the kind of research in researches. From Table 4.31, Graph 4.30, Graph 4.31 and Graph 4.32, it is evident that

Out of 149 Ph.D. researches, the Explanation of the terms was written in all 149 (100 percent) researches but the Operationalization of the terms was found in only 132 (88.59 percent studies) and found missing in 17 (11.41 percent) researches.

Out of 124 M.Phil. researches, Explanation of the terms were written in all 124 (100 percent) researches but the Operationalization of the terms was found in only 90 (72.58 percent studies) and found missing in 34 (27.42 percent) researches.

Out of 17 Project Researches, Explanation of the terms was written in all 17 (100 percent) researches but the Operationalization of the terms was found in only 12 (70.59 percent studies) and found missing in 5 (24.41 percent) researches.

Out of total 290 (Ph.D., M.Phil. and Project) researches, the Explanation of the terms was written in all 290 (100 percent) researches but Operationalization of the terms was found in only 234 (80.69 percent studies) and found missing in 56 (19.31 percent) researches.

Table 4.30

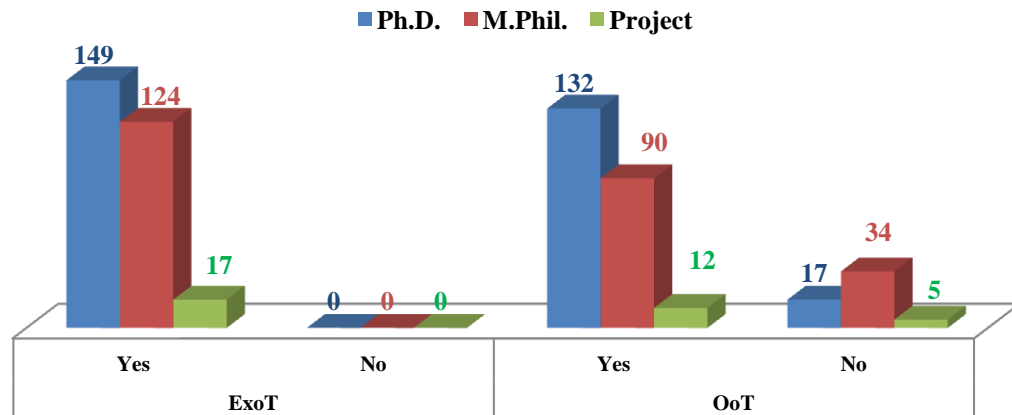
Trend of research at the School of Education, Devi Ahilya Vishwavidyalaya during 1964-2014, with respect to Explanation and Operationalization of the terms

Years	Level	Explanation of Terms (ExoT)		Operationalization of terms (OoT)	
		Yes	No	Yes	No
1964-1974	Ph.D.	1	0	1	0
	M.Phil.	0	0	0	0
	Project	0	0	0	0
1975-1984	Ph.D.	13	0	10	3
	M.Phil.	0	0	0	0
	Project	9	0	8	1
1985-1994	Ph.D.	42	0	41	1
	M.Phil.	85	0	65	20
	Project	6	0	4	2
1995-2004	Ph.D.	41	0	31	10
	M.Phil.	1	0	1	0
	Project	1	0	0	1
2005-2014	Ph.D.	52	0	49	3
	M.Phil.	38	0	24	14
	Project	1	0	0	1
Overall	Ph.D.	149	0	132	17
	Ph.D. %	100.00	0.00	88.59	11.41
	M.Phil.	124	0	90	34
	M.Phil. %	100.00	0.00	72.58	27.42
	Project	17	0	12	5
	Project %	100.00	0.00	70.59	29.41
	Total	290	0	234	56
	Total %	100.00	0.00	80.69	19.31

From the trend of research with respect to the Explanation of the terms in research at each level of the research, it is evident that this component was consistently got placed throughout the years during 1964-2014. But, from trend of research with respect to the Operationalization of the terms in research was concerned, it was found that at each level of the research this component was consistently being losing its place throughout the years during 1964-2014.

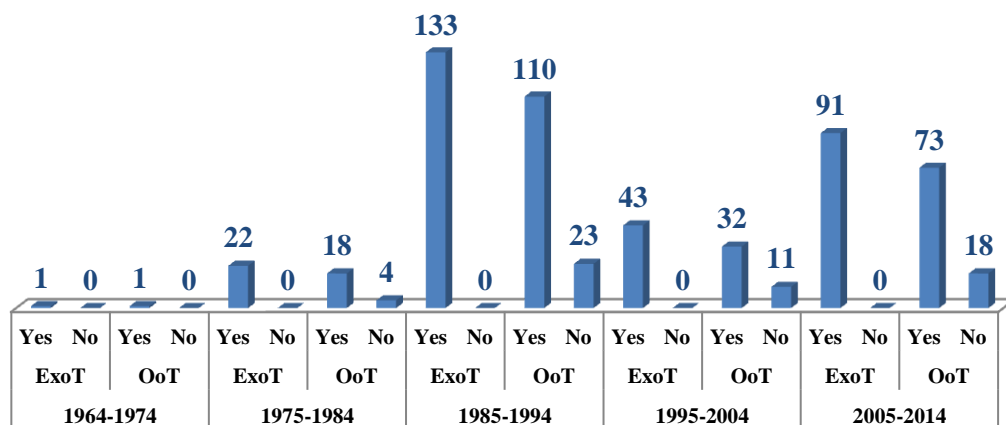
Graph 4.30

Level wise details of the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014, with respect to Availability of Explanation and Operationalization of the terms



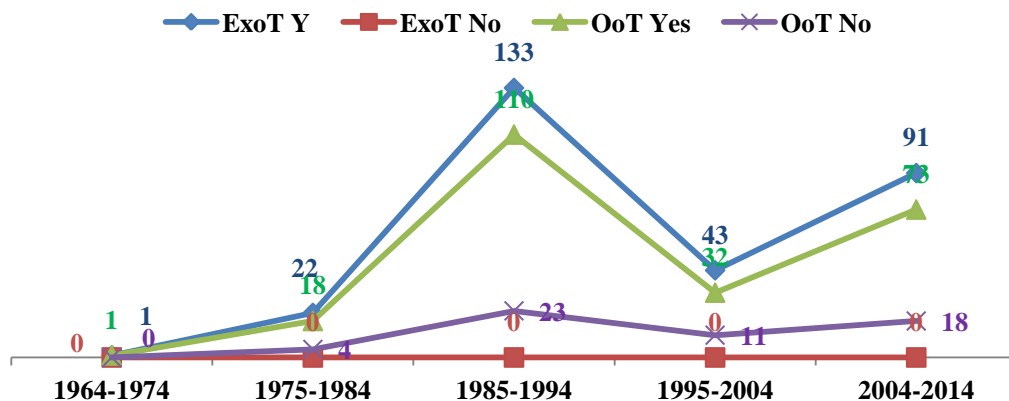
Graph 4.31

Trend of the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014, with respect to Availability of Explanation and Operationalization of the terms



Graph 4.32

Trend of the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014, with respect to Availability of Explanation and Operationalization of the terms



Overall, from the aforesaid, Explanation of the terms was found in all (100 percent) researches but the Operationalization of terms was found missing in 56 (19.31 percent) at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014. From the aforesaid, the Operationalization of the terms was found a neglected element in the Research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014.

4.5.5.4 ANALYSIS WITH RESPECT TO HYPOTHESIS (ES) IN RESEARCH

For this, an item 'Hypotheses type' with the options 'Null', 'Alternative', 'both Null and Alternative' and 'Not needed', was placed in the *Educational Research Information and Review Schedule* (Appendix—B). Table 4.21, Graph 4.33, Graph 4.34 and Graph 4.35 depicts the situation regarding the in researches.

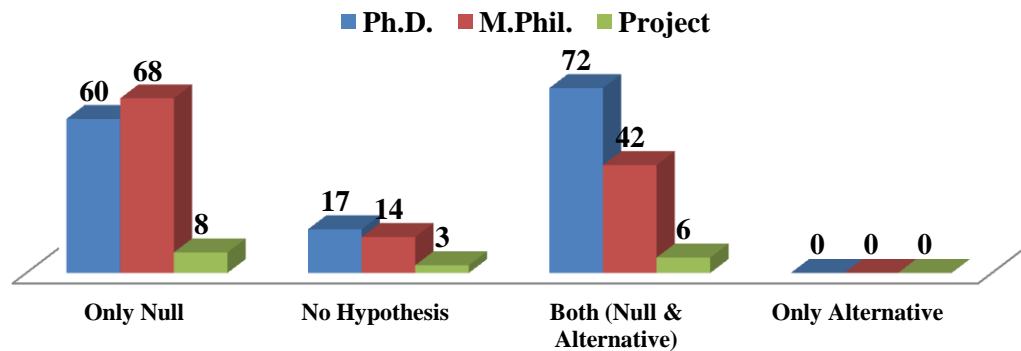
Table 4.31

Trend of the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014, with respect to the type of Hypothesis(es) made

Years	Level	Hypothesis made				Total
		Null only	No Statistical Hypotheses	Both (Null & Alternative)	Alternative only	
1964-1974	Ph.D.	0	1	0	0	1
	M.Phil.	0	0	0	0	0
	Project	0	0	0	0	0
1975-1984	Ph.D.	3	0	10	0	13
	M.Phil.	0	0	0	0	0
	Project	3	1	5	0	9
1985-1994	Ph.D.	23	6	13	0	42
	M.Phil.	49	10	26	0	85
	Project	5	0	1	0	6
1995-2004	Ph.D.	22	4	15	0	41
	M.Phil.	1	0	0	0	1
	Project	0	1	0	0	1
2005-2014	Ph.D.	12	6	34	0	52
	M.Phil.	18	4	16	0	38
	Project	0	1	0	0	1
Overall	Ph.D.	60	17	72	0	149
	Ph.D. %	40.27	11.41	48.32	0.00	100.00
	M.Phil.	68	14	42	0	124
	M.Phil. %	54.84	11.29	33.87	0.00	100.00
	Project	8	3	6	0	17
	Project %	47.06	17.65	35.29	0.00	100.00
	Total	136	34	120	0	290
	Total %	46.90	11.72	41.38	0.00	100.00

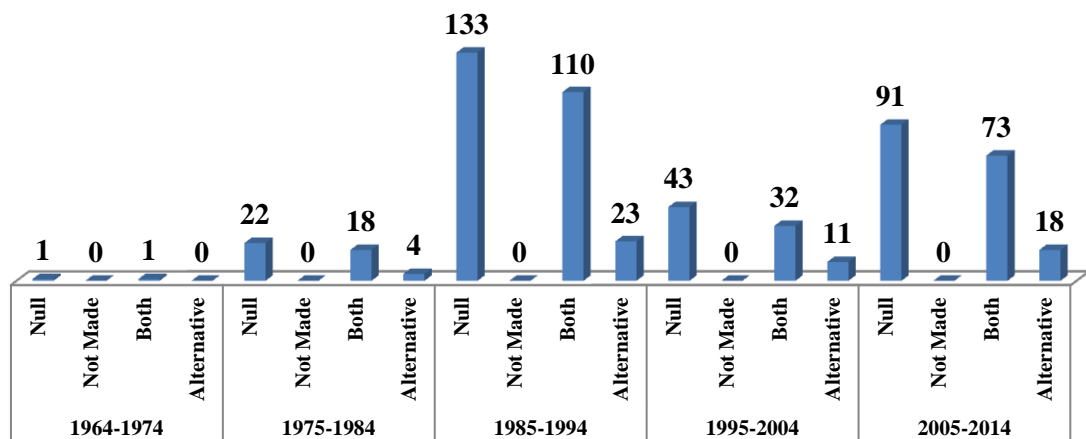
Graph 4.33

Level wise details of the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014 with respect to the type of Hypothesis(es) made



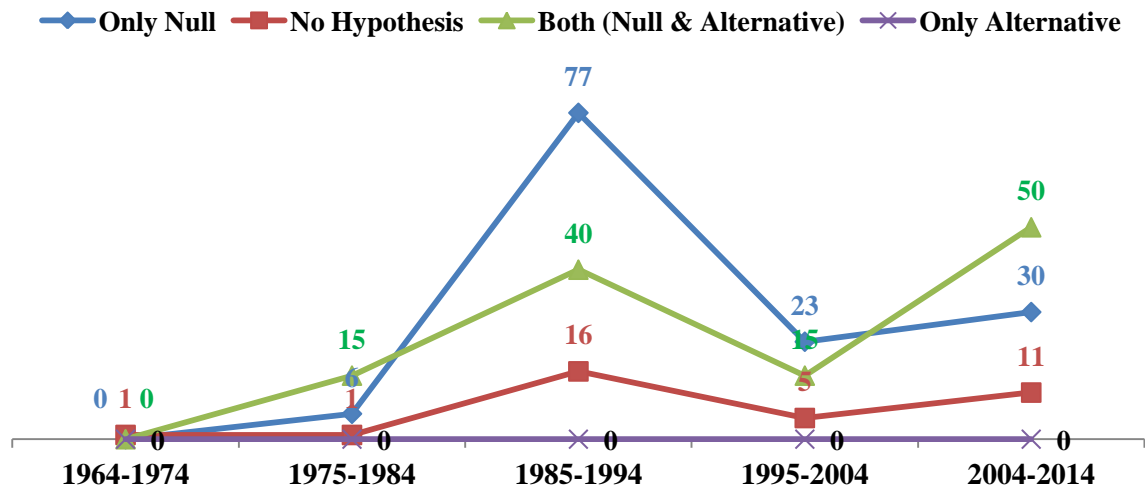
Graph 4.34

Trend of research at the School of Education, DAVV during 1964-2014 with respect to Hypothesis



Graph 4.35

Trend of the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014 with respect to the type of Hypothesis(es) made



From Table 4.21, Graph 4.33, Graph 4.34 and Graph 4.35, it is clear that,

Out of 149 Ph.D. researches, it was found that the Null Hypothesis(es) were formulated in the 60 (40.27 percent) researches, in 72 (48.32 percent) researchers both Null and Alternative) hypothesis(es) were formulated, in 17 (11.41 percent) researches no Hypothesis of any sort was formulated. There was not a single study in which only alternative Hypothesis was formulated.

Out of 124 M.Phil. researches, it was found that the Null Hypothesis(es) were formulated in the 68 (54.84 percent) researches, in 42 (33.87 percent) researchers both Null and Alternative) hypothesis(es) were formulated, in 14 (11.29 percent) researches no Hypothesis of any sort was formulated. There was not a single study in which only alternative Hypothesis was formulated.

Out of 17 Project Researches, it was found that the Null Hypothesis(es) were formulated in the 8 (47.06 percent) researches, in 6 (35.29 percent) researchers both Null and Alternative) hypothesis(es) were formulated, in 3 (17.65 percent) researches no Hypothesis of any sort was formulated. There was not a single study in which only alternative Hypothesis was formulated.

Out of total 290 (Ph.D., M.Phil. and Project) researches, it was found that the Null Hypothesis(es) were formulated in the 136 (46.9 percent) researches, in 120 (41.38 percent) researchers both Null and Alternative) hypothesis(es) were formulated, in 34 (11.72 percent) researches no Hypothesis of any sort was formulated. There was not a single study in which only alternative Hypothesis was formulated.

Thus, Null hypothesis formulation was dominating the area of Hypothesis formulation in the researches at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014. Overall, from the aforesaid, the formation of the Hypotheses of Null type was found dominated the other types of the hypotheses formation which lead to the conclusion of the dominant use of statistical techniques over the qualitative research analysis techniques in the researches at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014. It can also be concluded the preference to null hypotheses was given while taking alternative hypothesis was found to be nil among researchers of the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014.

4.5.6 ANALYSIS REGARDING METHOD OF THE RESEARCH

For analyzing this component of 'Method of research' in the researches at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014, two items viz. '*Type of research*' and '*Experimental Design used*' were placed in the *Educational Research Information and Review Schedule* (Appendix—B). Here these two items were analyzed as below.

4.5.6.1 ANALYSIS WITH RESPECT TO THE METHOD OF THE RESEARCH

For this, an item 'Type/Method of the research' was placed in the *Educational Research Information and Review Schedule* (Appendix—B). Table 4.32, Graph 4.36 & Graph 4.37 depicts the situation regarding the method of research used in researches.

Out of 149 Ph.D. researches, maximum 99 (66.44 percent) researches used Experimental method in their studies, 23 (15.44 percent) researches used Survey method, 11 (7.38 percent) researchers used Philosophical Method, 7 (4.07 percent) researches used Explorative method, 4 (2.68 percent) researches used Descriptive Method, 3 (2.01 percent) researches used Diagnostic Research method, 1 (0.67 percent) researches used Comparative Method and Case Study Method each. No Ph.D. study was conducted using the Correlation Method.

Out of 124 M.Phil. researches, maximum 50 (40.32 percent) researches used Experimental method in their studies, 38 (30.65 percent) researches used Survey method, 13 (10.48 percent) researchers used Philosophical Method, 10 (8.06 percent) researches used Explorative method, 7 (5.65 percent) researches used Descriptive Method, 2 (1.61 percent) researches used Diagnostic Methods and Correlation Methods each, 1 (0.81 percent) researches used Comparative Method and Case study method each.

Out of 17 projects researches, maximum 11 (64.71 percent) researches used the Experimental method in their studies, 5 (29.41 percent) researches used Survey method, and 1 (5.88 percent) researches used the Case study method. No projects were undertaken using Comparative Method, Diagnostic Method, Descriptive Method, Correlation Method, Explorative Method and Philosophical Methods contemporary to time 1964-2014.

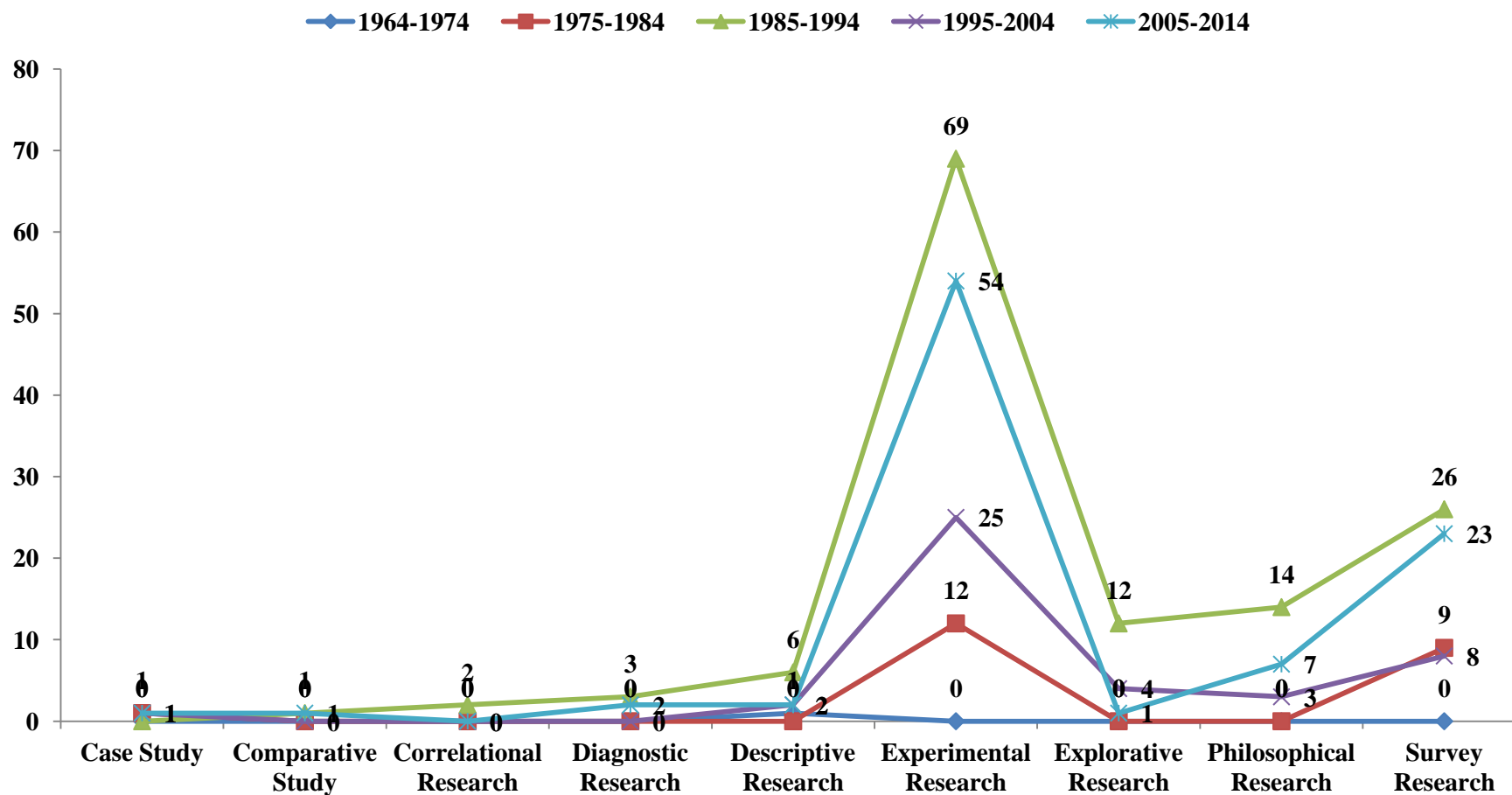
Table 4.32

Trend Analysis of the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014 with respect to Method of Research

Years	Level	Method of Research									Total	Total (%)
		Case Study	Comparative	Correlation	Diagnostic	Descriptive	Experimental	Explorative	Philosophical	Survey		
1964-1974	Ph.D.	0	0	0	0	1	0	0	0	0	1	0.34
	M.Phil.	0	0	0	0	0	0	0	0	0	0	0.00
	Project	0	0	0	0	0	0	0	0	0	0	0.00
1975-1984	Ph.D.	0	0	0	0	0	7	0	0	6	13	4.48
	M.Phil.	0	0	0	0	0	0	0	0	0	0	0.00
	Project	1	0	0	0	0	5	0	0	3	9	3.10
1985-1994	Ph.D.	0	0	0	2	0	30	2	5	3	42	14.48
	M.Phil.	0	1	2	1	6	33	10	9	23	85	29.31
	Project	0	0	0	0	0	6	0	0	0	6	2.07
1995-2004	Ph.D.	1	0	0	0	2	25	4	3	6	41	14.14
	M.Phil.	0	0	0	0	0	0	0	0	1	1	0.34
	Project	0	0	0	0	0	0	0	0	1	1	0.34
2005-2014	Ph.D.	0	1	0	1	1	37	1	3	8	52	17.93
	M.Phil.	1	0	0	1	1	17	0	4	14	38	13.10
	Project	0	0	0	0	0	0	0	0	1	1	0.34
Overall	Ph.D.	1	1	0	3	4	99	7	11	23	149	
	Ph.D. (%)	0.67	0.67	0.00	2.01	2.68	66.44	4.70	7.38	15.44	100	
	M.Phil.	1	1	2	2	7	50	10	13	38	124	
	M.Phil. (%)	0.81	0.81	1.61	1.61	5.65	40.32	8.06	10.48	30.65	100	
	Project	1	0	0	0	0	11	0	0	5	17	
	Project (%)	5.88	0.00	0.00	0.00	0.00	64.71	0.00	0.00	29.41	100	
	Total	3	2	2	5	11	160	17	24	66	290	
	Total (%)	1.03	0.69	0.69	1.72	3.79	55.17	5.86	8.28	22.76	100	100

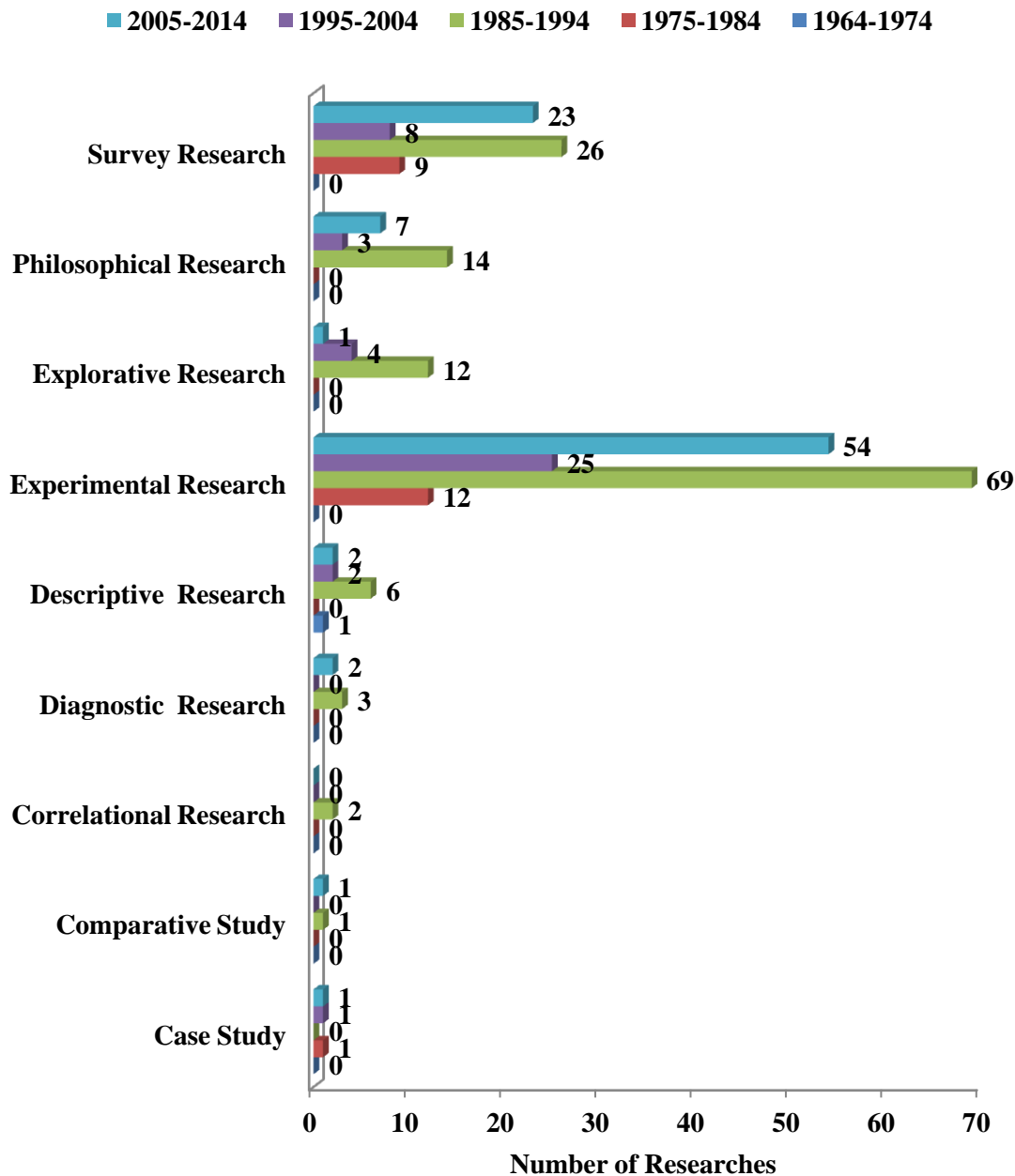
Graph 4.36

Trends with respect to Method of research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014



Graph 4.37

Details of the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014 with respect to Method of the Research



Out of total 290 (Ph.D., M.Phil. and Project) researches, maximum 160 (55.17 percent) researches used Experimental method in their studies, 66 (22.76 percent) researches used Survey method, 24 (8.28 percent) researchers used Philosophical Method, 17 (8.06 percent) researches used Explorative method, 11 (3.79 percent) researches used Descriptive Method, 5 (1.72 percent) researches used Diagnostic Methods, 3 (1.03 percent) researches Case Study Method each and 2 (0.69 percent) Correlation Method and Comparative Method each.

The trend of the researches at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014 with respect to Method of Research shows that—

- In every decade, most numbers of researches were conducted using the ‘Experimental method’. And this trend was found consistent throughout 1964-2014. This makes the ‘Experimental research method’ as one of the favorites among researchers and teachers at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014.
- The second most explored method of research was found to be the ‘Survey method’ during 1964-2014.
- The third most popular method of research was found to be the ‘Philosophical method’ during 1964-2014.

The scenario of the method of research used in researches at the School of Education, Devi Ahilya Vishwavidyalaya was found not diversified. Only Experimental, Survey, and Philosophical types of researches methods were preferred mostly. While other types of research methods like Action Research, Historical Research, Diagnostic Study, Ex-post facto Research, Exploratory Research, and Correlational Method, were used either in meager numbers or given less attention. It can be elicited that a one-sided approach in terms of the type of research was used. The situation at all levels of research was found to be not diversified in terms of the method of the research was taken up, due to the adoption of lop-sided/ domination of few methods of research only.

4.5.6.2 ANALYSIS WITH RESPECT TO THE KIND OF EXPERIMENTAL DESIGN USED IN RESEARCH

For this, an item ‘Experimental Design used’ was placed in the *Educational Research Information and Review Schedule* (Appendix—B). Table 4.33, Graph 4.38, Graph 4.39 & Graph 4.40 depicts the situation regarding ‘Kind of Experimental design used’ in researches at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014.

From Table 4.33, Graph 4.38, Graph 4.39 & Graph 4.40, it is evident that —

Out of total 290 researches, 160 (55.17 percent) researches was carried out under Experimental Research or using Experimental Designs. Thus, in 130 (44.83 percent) researches, Experimental designs were not applicable/ used.

Out of 149 Ph.D. researches, Experimental designs were utilized in 99 (63.77 percent) researches. Out of these 99 researches, optimally Quasi-Experimental Designs were used in 51 (34.23 percent) researches, Pre-Experimental Design being used in 43 (28.86 percent) researches and in the remaining 5 (3.36 percent) researches True Experimental Research Design was used.

Table 4.33

Trend Details of the research with respect to Kind of Experimental design used in Researches at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014

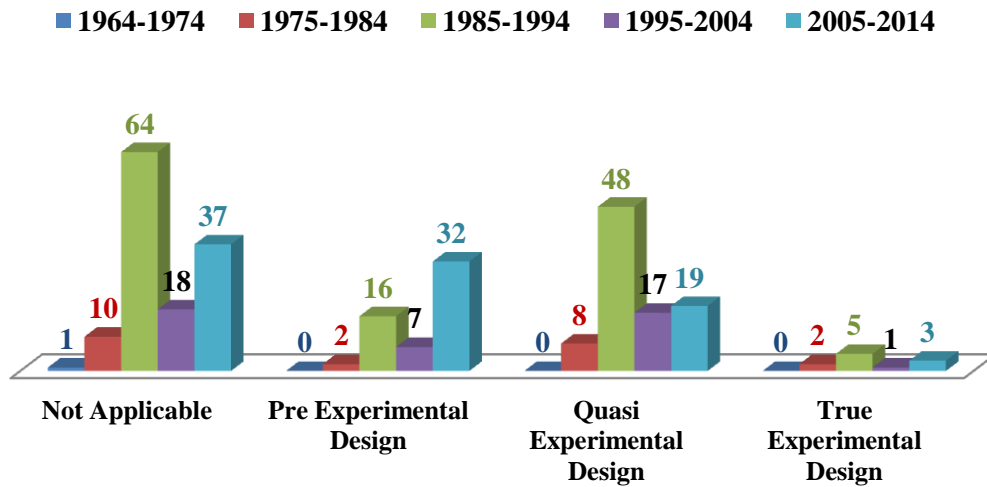
Years	Level	Experimental Designs				Total	
		NA	Pre	Quasi	True	N	%
1964-1974	Ph.D.	1	0	0	0	1	0.34
	M.Phil.	0	0	0	0	0	0.00
	Project	0	0	0	0	0	0.00
1975-1984	Ph.D.	6	1	6	0	13	4.48
	M.Phil.	0	0	0	0	0	0.00
	Project	4	1	2	2	9	3.10
1985-1994	Ph.D.	12	10	18	2	42	14.48
	M.Phil.	52	5	25	3	85	29.31
	Project	0	1	5	0	6	2.07
1995-2004	Ph.D.	16	7	17	1	41	14.14
	M.Phil.	1	0	0	0	1	0.34
	Project	1	0	0	0	1	0.34
2005-2014	Ph.D.	15	25	10	2	52	17.93
	M.Phil.	21	7	9	1	38	13.10
	Project	1	0	0	0	1	0.34
Overall	Ph.D.	50	43	51	5	149	
	Ph.D. (%)	33.56	28.86	34.23	3.36	100	
	M.Phil.	74	12	34	4	124	
	M.Phil. (%)	59.68	9.68	27.42	3.23	100	
	Project	6	2	7	2	17	
	Project (%)	35.29	11.76	41.18	11.76	100	
	Total	130	57	92	11	290	
	Total (%)	44.83	19.66	31.72	3.79	100	100.00

NA—Not Applicable, Pre—Pre-Experimental Design, Quasi—Quasi-Experimental Design, True—True-Experimental Design

Out of 124 M.Phil. researches, Experimental designs were utilized in 56 (45.16 percent) researches. Out of these 56 researches, optimally Quasi-Experimental Designs were used in 34 (27.42 percent) researches, Pre-Experimental Design being used in 12 (9.68 percent) researches and in the remaining 4 (3.23 percent) researches True Experimental Research Design was used.

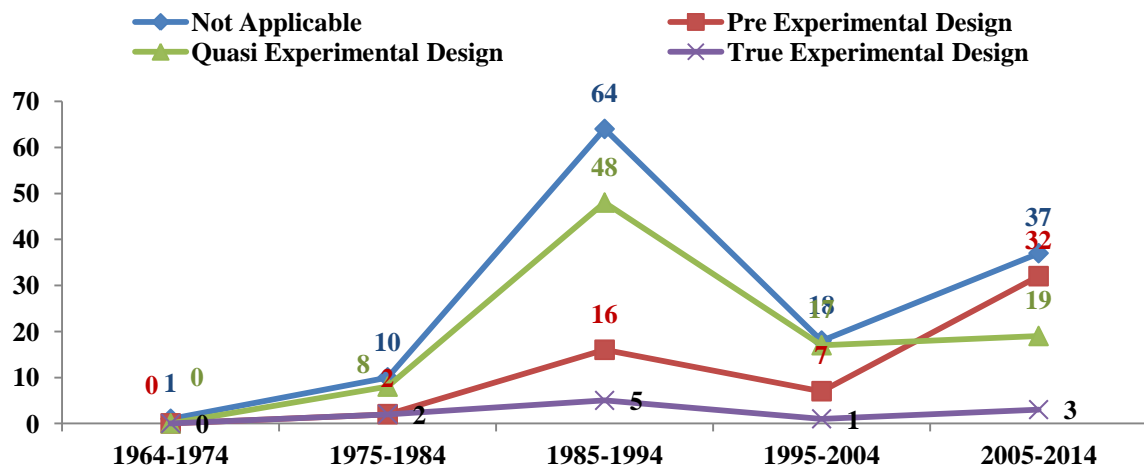
Graph 4.38

Trend Details of the research with respect to Kind of Experimental design used in Researches at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014



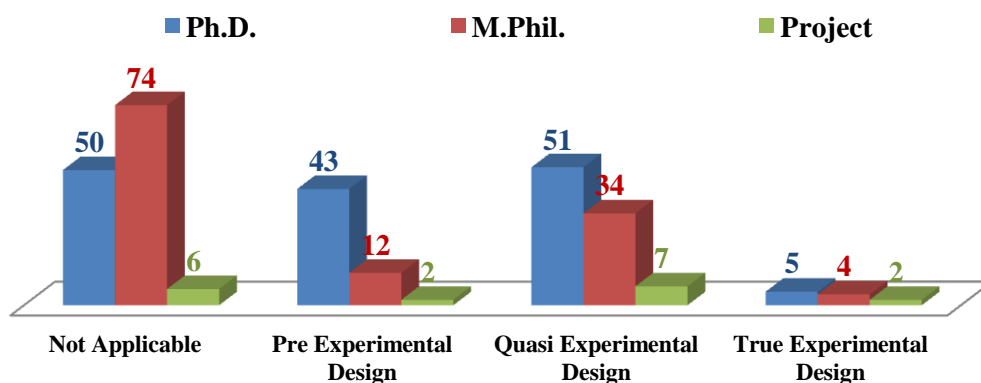
Graph 4.39

Trend Details of the research with respect to Type of Experimental design used in Researches at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014



Graph 4.40

Level of research wise details of the research with respect to Type of Experimental design used in Researches at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014



Out of 17 Project researches, Experimental designs were utilized in 11 (64.71 percent) researches. Out of these 11 researches, optimally Quasi-Experimental Designs were used in 7 (41.18 percent) researches; Pre-Experimental Design and True-Experimental Design were used in 2 (11.76 percent) researches each.

Out of total 290 (Ph.D., M.Phil. and Project) researches, Experimental designs were utilized in 160 (55.17 percent) researches. Out of these 160 researches, optimally Quasi-Experimental Designs were used in 92 (31.72 percent) researches, Pre-Experimental Design being used in 57 (19.66 percent) researches and in the remaining 11 (3.79 percent) researches True-Experimental Research Design was used.

During 1964-2014, from the trend of researches with respect to Kind of Experimental Design used in the researches at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, it is evident that

- Major chunk i.e. 55.17 percent of total researches was carried with the Experimental research method.
- Quasi-Experimental Design dominated among all levels of research.
- Out of many Experimental Designs, in all decades 1975-1984, 1985-1994, and 1995-2004 Quasi-Experimental Design dominated among all Experimental Designs except 2005-2014.
- With Pre-Experimental Design, a maximum of 25 researches were carried out at the Ph.D. level during 2005-14.
- With Quasi-Experimental Design, a maximum of 25 researches were carried out at the M.Phil. level during 1985-1994.
- With True-Experimental Design, a maximum of 3 researches were carried out at the M.Phil. level during 1985-1994.

Thus, it can be deducted from the previous elaborations that Experimental Method was used in abundance, in Educational Research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014. Further, Quasi-Experimental Design found dominating design among all Experimental Designs. In the later years during 2004-2014, Pre-Experimental designs were found getting popular too.

The further point of exploration was to find which type of Experimental research design, out of many types in Pre-, Quasi- and True-Experimental Designs, was used among the researchers at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014.

Table 4.34

Trend Details of the research with respect to Type of Experimental design used in researches at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014

SN	Type of Experimental Design	Experimental Design				Total	
		NA	Pre	Quasi	True	N	%
1	NA	130	0	0	0	130	44.83
2	Post-test Single Group Design	0	13	0	0	13	4.48
3	Pre-test, Post-test Single Group Design	0	44	0	0	44	15.17
4	Post-test only Non-Equivalent Group Design	0	0	23	0	23	7.93
5	Pre-test Post-test Non-Equivalent Group Design	0	0	54	0	54	18.62
6	Parallel Time-series design	0	0	4	0	4	1.38
7	Factorial Group Design	0	0	11	0	11	3.79
8	Pre-test Post-test Equivalent group design	0	0	0	5	5	1.72
9	Post-test only Equivalent Group Design	0	0	0	5	5	1.72
10	Randomized Solomon-Four-Group Design	0	0	0	1	1	0.34
Total		130	57	92	11	290	100.00
Total (%)		44.83	19.66	31.72	3.79	100.00	

From Table 4.34 and Graph 4.41, it is evident that—

Out of total 290 (Ph.D., M.Phil. and Project) researches, 160 researches were carried out using Experimental Methods. According to the ‘Kind of Experimental Research designs’ in these 160 researches, 57 researches were carried out using Pre-Experimental designs, 92 researches were carried out using Quasi-Experimental Designs, and the remaining 11 researches were carried out using True-Experimental Designs.

Out of total 57 Pre-Experimental Design Studies, maximum 44 (15.17 percent) researches were conducted using ‘Pre-test, Post-test Single Group Design’, and the remaining 13 (4.48 percent) researches were carried out using ‘Post-test Single Group Design’.

Out of total 96 Quasi-Experimental Design studies, ‘Post-test only Non-Equivalent Group Design’ was used in 23 (7.93 percent) researches, ‘Pre-test Post-test Non-Equivalent Group Design’ was used in 54 (18.62 percent) researches, ‘Parallel Time-series design’ was used in 4 (1.38 percent) researches, and ‘Factorial Group Design’ was used in 11 (3.79 percent) researches.

Out of 11 True-Experimental Research design studies, maximum ‘Pre-test Post-test Equivalent group design’ and ‘Post-test only Equivalent Group Design’ was used in 5

(1.72 percent) researches each and 'Randomized Solomon-Four-Group Design' was used in 1 (0.34 percent) researches.

Graph 4.41

Trend Details of the research with respect to Type of Experimental design used in researches at the School of Education, Devi Ahilya Vishwavidyalaya, during 1964-2014

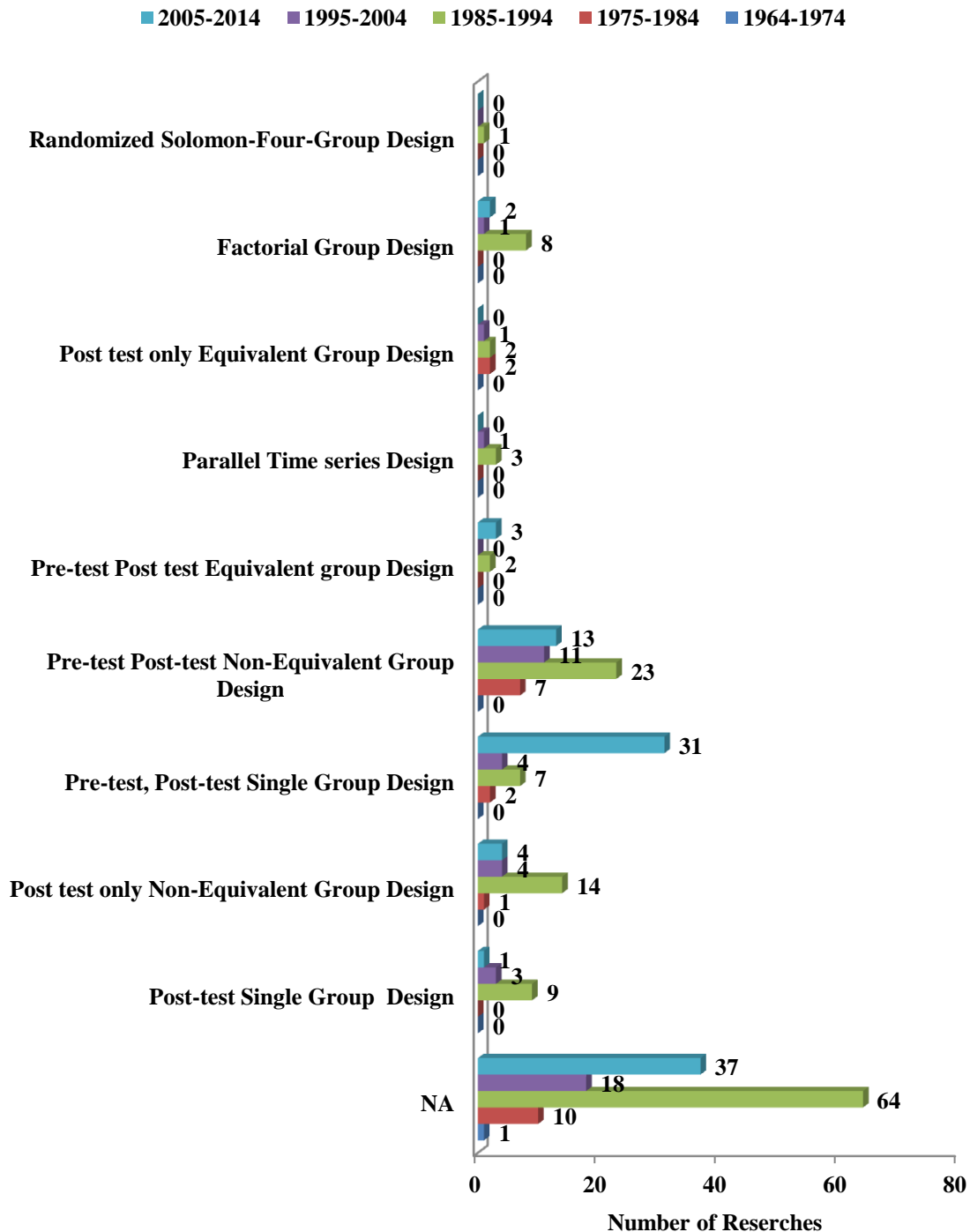


Table 4.35

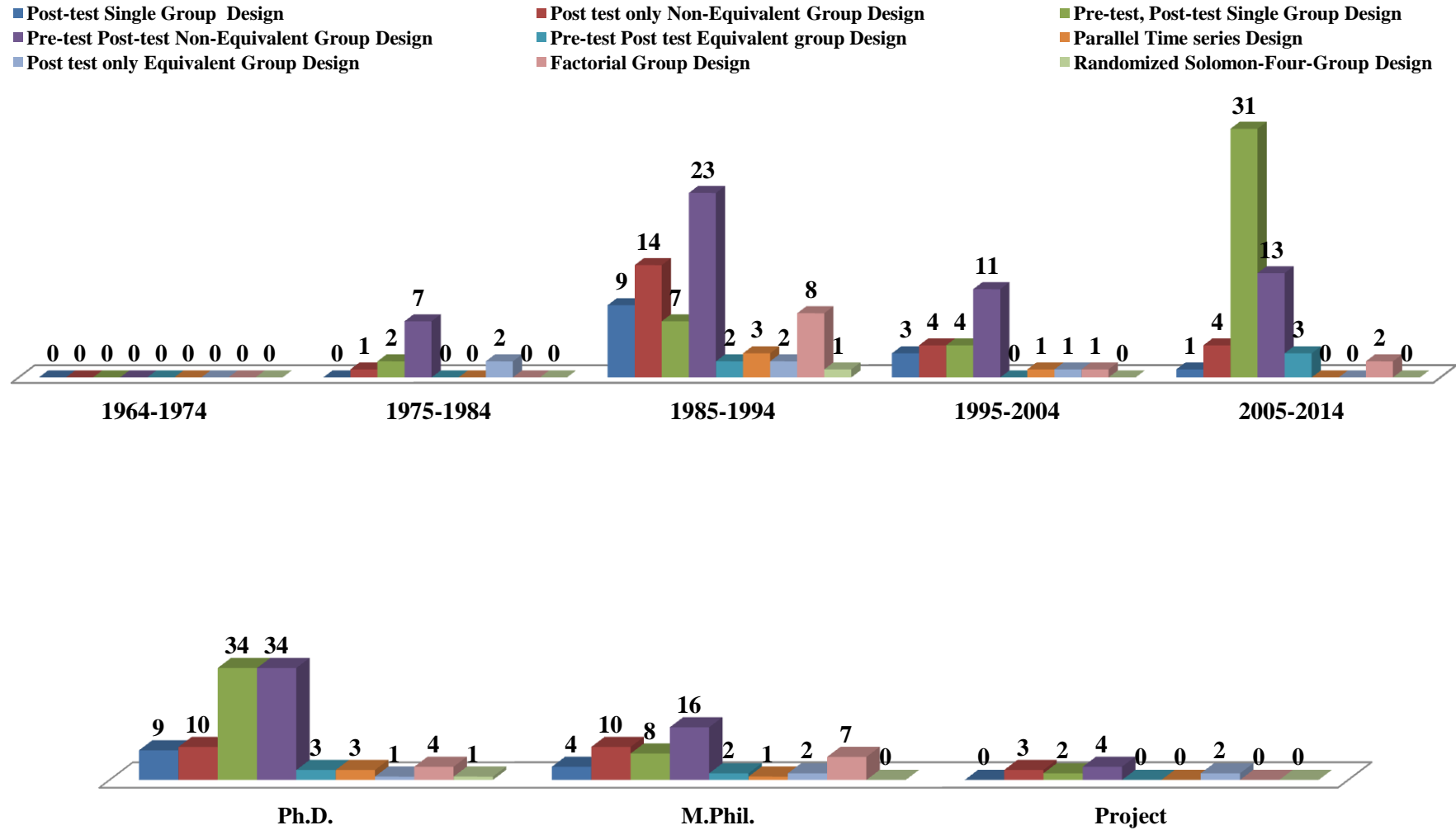
Trend Details of the research with respect to Experimental design used in research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014

Experimental Design	Years															Levels						Total	
	1964-1974			1975-1984			1985-1994			1995-2004			2005-2014			Ph.D.		M.Phil.		Project			
	a	b	c	a	b	c	a	b	c	a	b	c	a	b	c	N	%	N	%	N	%	N	%
NA	1	0	0	6	0	4	12	52	0	16	1	1	15	21	1	50	33.56	74	59.68	6	35.29	130	44.83
Post-test Single Group Design	0	0	0	0	0	0	6	3	0	3	0	0	0	1	0	9	6.04	4	3.23	0	0.00	13	4.48
Post-test only Non-Equivalent Group Design	0	0	0	1	0	0	2	9	3	4	0	0	3	1	0	10	6.71	10	8.06	3	17.65	23	7.93
Pre-test, Post-test Single Group Design	0	0	0	1	0	1	4	2	1	4	0	0	25	6	0	34	22.82	8	6.45	2	11.76	44	15.17
Pre-test Post-test Non-Equivalent Group Design	0	0	0	5	0	2	11	10	2	11	0	0	7	6	0	34	22.82	16	12.90	4	23.53	54	18.62
Pre-test Post-test Equivalent group design	0	0	0	0	0	0	1	1	0	0	0	0	2	1	0	3	2.01	2	1.61	0	0.00	5	1.72
Parallel Time-series design	0	0	0	0	0	0	2	1	0	1	0	0	0	0	0	3	2.01	1	0.81	0	0.00	4	1.38
Post-test only Equivalent Group Design	0	0	0	0	0	2	0	2	0	1	0	0	0	0	0	1	0.67	2	1.61	2	11.76	5	1.72
Factorial Group Design	0	0	0	0	0	0	3	5	0	1	0	0	0	2	0	4	2.68	7	5.65	0	0.00	11	3.79
Randomized Solomon-Four-Group Design	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0.67	0	0.00	0	0.00	1	0.34
Total	1	0	0	13	0	9	42	85	6	41	1	1	52	38	1	149	100.00	124	100.00	17	100.00	290	100.00

Note: a—Ph.D., b—M.Phil. and c—Project

Graph 4.42

Trend and Level of research wise details of researches with respect to the Type of Experimental Design used



From Table 4.34, Table 4.35, Graph 4.41 and Graph 4.42, it is evident that —

Out of 149 Ph.D. researches, 50 (33.56 percent) researches were not experimental design studies. In remaining 99 (66.44 percent) experimental designed studies, maximally ‘Pre-test, Post-test Single Group design’ and ‘Pre-test Post-test Non-Equivalent Group design’ was used maximally in 34 (22.82 percent) researches each, ‘Post-test only Non-Equivalent Group design’ was used in 10 (6.71 percent) researches, ‘Post-test Single Group design’ was used in 9 (6.04 percent) researches, ‘Factorial Group design’ was used in 4 (2.68 percent) researches, ‘Parallel Time-series Design’ and ‘Pre-test Post-test Equivalent Group Design’ was used in 3 (2.01 percent) researches each, ‘Post-test only Equivalent Group Design’ and ‘Randomized Solomon Four-Group Design’ was used in 1 (0.67 percent) researches each.

Out of 124 M.Phil. researches, 74 (59.68 percent) researchers were not experimental designed studies. In remaining 46 (40.32 percent) researches, maximally ‘Pre-test Post-test Non-Equivalent Group design’ used in 16 (12.9 percent) researches, ‘Post-test only Non-Equivalent Group Design’ was used in 10 (8.06 percent) researches, ‘Pre-test Post-test Single Group Design’ was used in 8 (6.45 percent) researches, ‘Factorial Group Design’ was used in 7 (6.65 percent) researches, ‘Post-test Single Group design’ was used in 4 (3.23 percent) researches, ‘Pre-test Post-test Equivalent group design’ & ‘Post-test only Equivalent Group design’ was used in 2 (1.61 percent) researches each, and ‘Parallel Time-series design’ was used in 1 (0.81 percent) researches only. ‘Randomized Solomon-Four-Group design’ was not used in any M.Phil. research.

Out of 17 project studies, 6 (35.29 percent) researchers were not experimental designed studies. In remaining 11 (64.71 percent) researches, maximally ‘Pre-test Post-test Non-Equivalent Group design’ used in 4 (23.53 percent) researches, ‘Post-test only Non-Equivalent Group design’ was used in 3 (17.65 percent) researches, ‘Pre-test Post-test Single Group design’ and ‘Post-test only Equivalent Group design’ was used in 2 (11.76 percent) researches each. ‘Post-test Single Group design’, ‘Parallel Time-series design’, ‘Factorial Group design’ and ‘Pre-test Post-test Equivalent group’ was and ‘Randomized Solomon-Four-Group design’ was used not used in any Project studies.

Out of total 290 (Ph.D., M.Phil. and Project) researches, 130 (44.83 percent) researchers were not experimental designed studies. In remaining 160 (55.17 percent) researches, maximally ‘Pre-test Post-test Non-Equivalent Group design’ used in 54

(18.62 percent) researches, 'Pre-test, Post-test Single Group design' was used in 44 (15.17 percent) researches, 'Post-test only Non-Equivalent Group design' was used in 23 (7.93 percent) researches, 'Post-test Single Group design' was used in 13 (4.48 percent) researches, 'Factorial Group design' was used in 11 (3.79 percent) researches, 'Post-test only Equivalent group' and 'Pre-test Post-test Equivalent Group design' was used in 5 (1.72 percent) researches each and 'Parallel Time series' was used in 4 (1.38 percent) researches and 'Randomized Solomon-Four-Group' was used in 1 (0.34 percent) research only.

From Table 4.34, Table 4.35, Graph 4.41 and Graph 4.42, in Educational Researches during 1964-2014, at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, it is evident that

- 'Post-test Single Group design' was used maximally in 6 Ph.D. researches during 1985-1994.
- 'Pre-test, Post-test Single Group design' was used maximally in 25 Ph.D. researches during 2004-2014.
- 'Post-test only Non-Equivalent Group' was used maximally in 9 M.Phil. researches during 1985-1994
- 'Pre-test Post-test Non-Equivalent Group design' was used maximally in 11 Ph.D. and M.Phil. researches each during 1985-1994 and 1995-2004 respectively.
- 'Parallel Time-series design' was used maximally in 2 Ph.D. researches during 1985-1994
- 'Factorial Group design' was used maximally in 5 M.Phil. researches during 1985-1994.
- 'Pre-test Post-test Equivalent group design' was used maximally in 2 Ph.D. researches during 2005-2014.
- 'Post-test only Equivalent Group design' was used maximally in 2 Project and M.Phil. researches during 1975-84 and 1985-1994 respectively.
- Randomized Solomon-Four-Group was used only in 1 Ph.D. research during 1985-1994.
- As far as the Experimental designs were concerned, during 1964-2014, 'Pre-test, Post-test Single Group design' and 'Pre-test Post-test Non-Equivalent Group design' dominated the at the Ph.D. level of research.
- As far as the Experimental designs were concerned, , during 1964-2014, 'Pre-test Post-test Non-Equivalent Group design' and 'Post-test only Non-Equivalent Group Design' were found dominated at the M.Phil. level.

- As far as the Experimental designs were concerned, , during 1964-2014, ‘Pre-test Post-test Non-Equivalent Group design’ was found dominated at the Project level.

It was clear from the above that Researches at the School of Education, Devi Ahilya Vishwavidyalaya, during 1964-2014 had not balanced as far as the scenario of Experimental designs was concerned. The ‘Pre-test Post-test Non-Equivalent Group’ dominated the rest of the research designs in the Experimental sort of studies.

4.5.7 ANALYSIS REGARDING SAMPLING USED

For analyzing this component of sampling technique used in the researches at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014, Three items were placed up in the *Educational Research Information and Review Tool* (Appendix—B). Here these three items were analyzed as below.

4.5.7.1 ANALYSIS WITH RESPECT TO THE GEOGRAPHICAL REGION OF THE STUDY IN RESEARCH

For this an item ‘Geographical Region of the study’ was placed in the *Educational Research Information and Review Tool* (Appendix—B), with six options of ‘Indore’, ‘Outside Indore but in Madhya Pradesh (MP)’, ‘Outside M.P. but in India’, ‘Outside India’ and ‘Not applicable’. Table 4.36, Graph 4.43 and Graph 4.44 depicts the situation regarding the Geographical region of the study used in Researches. It is clear that—

Out of 149 Ph.D. researches, maximum 124 (83.22 percent) researches were carried out using sample from the geographical region of ‘Within Indore’, 7 (4.7 percent) researches used to sample from the geographical region of ‘Within Madhya Pradesh but outside Indore’, 4 (2.68 percent) researches were having the sample from the geographical region of ‘Within India but Outside Madhya Pradesh’ and only one (0.67 percent) researches were undertaken with the sample from the geographical region of ‘Outside India’. There were also 13 (8.72 percent) researches in which the sample was ‘Not applicable’ as far as the geographical region was concerned due to the Philosophical /Descriptive nature of the studies.

Out of 124 M.Phil. researches, Maximum 85 (68.55 percent) researchers were carried out using sample from the geographical region of ‘Within Indore’, 8 (6.45 percent) researches used to sample from the geographical region of ‘Within Madhya Pradesh but outside Indore’, 16 (12.90 percent) researches were having

sample from the geographical region of ‘Within India but Outside Madhya Pradesh’ and no research was undertaken with sample from the geographical region of ‘Outside India’. There were also 15 (12.10 percent) researches in which the sample was ‘Not applicable’ as far as the geographical region was concerned due to the Philosophical /Descriptive nature of the studies.

Table 4.36

Details of the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014 with respect to Geographical Region of the Sample

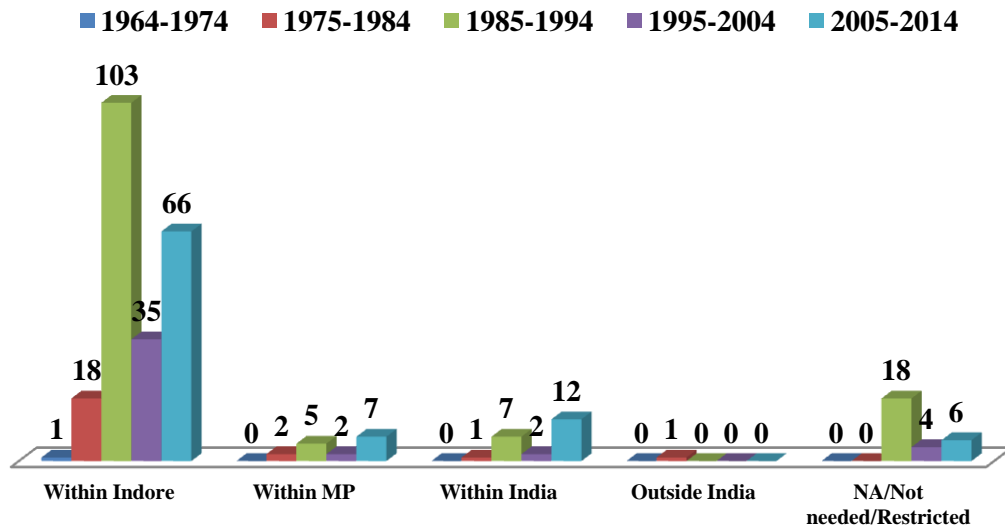
Year	Level	Geographical Region of the Sample					Total
		Within Indore	Within Madhya Pradesh But outside Indore	Within India But outside MP	Outside India	NA	
1964-1974	Ph.D.	1	0	0	0	0	1
	M.Phil.	0	0	0	0	0	0
	Project	0	0	0	0	0	0
1975-1984	Ph.D.	10	1	1	1	0	13
	M.Phil.	0	0	0	0	0	0
	Project	8	1	0	0	0	9
1985-1994	Ph.D.	34	0	1	0	7	42
	M.Phil.	63	5	6	0	11	85
	Project	6	0	0	0	0	6
1995-2004	Ph.D.	34	2	1	0	4	41
	M.Phil.	1	0	0	0	0	1
	Project	0	0	1	0	0	1
2005-2014	Ph.D.	45	4	1	0	2	52
	M.Phil.	21	3	10	0	4	38
	Project	0	0	1	0	0	1
Overall	Ph.D.	124	7	4	1	13	149
	Ph.D. %	83.22	4.70	2.68	0.67	8.72	100.00
	M.Phil.	85	8	16	0	15	124
	M.Phil. %	68.55	6.45	12.90	0.00	12.10	100.00
	Project	14	1	2	0	0	17
	Project %	82.35	5.88	11.76	0.00	0.00	100.00
	Total	223	16	22	1	28	290
	Total %	76.90	5.52	7.59	0.34	9.66	100.00

Out of 17 Project Researches, Maximum 14 (82.35 percent) researchers were carried out using sample from the geographical region of ‘Within Indore’, 1 (5.88 percent) researches used sample from the geographical region of ‘Within Madhya Pradesh but outside Indore’ and 2 (11.76 percent) researches were having sample from the geographical region of ‘Within India but Outside Madhya Pradesh’, No

research was undertaken with sample from the geographical region of 'Outside India'. Also, there was no research in which the sample was 'Not applicable' as far as the geographical region was concerned.

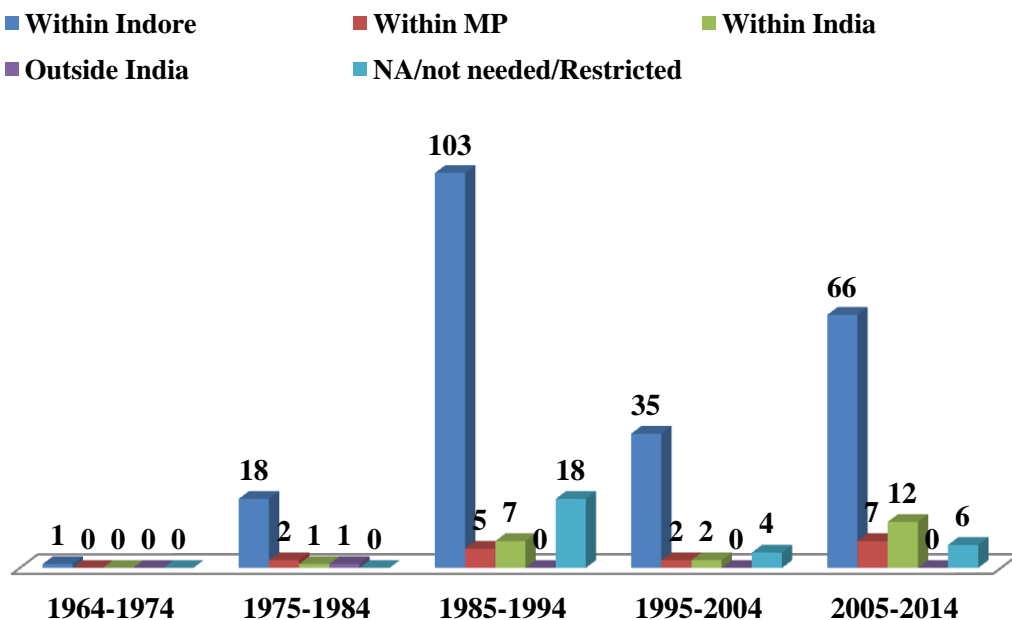
Graph 4.43

Trends of research with respect to Jurisdiction of the Sample



Graph 4.44

Trends of research with respect to Jurisdiction of the Sample



Out of total 290 (Ph.D., M.Phil. and Project) researches, maximum 223 (76.9 percent) researches were carried out using sample from the geographical region of 'Within Indore', 16 (5.52 percent) researches used to sample from the geographical region of 'Within Madhya Pradesh but outside Indore', 22 (7.59 percent) researches

were having sample from the geographical region of ‘Within India but Outside Madhya Pradesh’ and One (0.34 percent) research was undertaken with sample from the geographical region of ‘Outside India’. There were also 28 (9.66 percent) researches in which the sample was ‘Not applicable’ as far as the geographical region was concerned due to the Philosophical /Descriptive nature of the studies.

The trend of the researches with respect to the jurisdiction of the sample clearly indicated that—

- in all decades 1964-1974, 1975-1984, 1985-1994, 1995-2004 and 2005-2014, there was a consistent dominance of taking geographical region ‘Indore’ as the sample.
- From the above, it is evident that maximum researchers at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014 preferred Geographical regions of the sample as Indore at all levels of research.
- In other geographical regions mentioned earlier apart from ‘Indore’ meager researches were carried out.

Also at the same time, only one study out of 290 studies, was found with the sample of ‘International level’ which indicates the departments’ inability to fetch foreign students or conduct research in foreign countries. The implication can be drawn from the analysis of this component that Mentors and Researchers should be encouraged to take diversify geographical areas to cut across the national level research outcome. Also, some mechanism should be employed for attracting the foreign level of the research.

4.5.7.2 ANALYSIS WITH RESPECT TO THE SAMPLE OF THE STUDY IN RESEARCH

For this, an item ‘Sample of the study’ was placed in the *Educational Research Information and Review Tool* (Appendix—B). Table 4.37, Graph 4.45 and Graph 4.46 depicts the situation regarding Sample of the study used in researches at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014. From table 4.37, Graph 4.45 and Graph 4.46, it is evident that—

Out of 149 Ph.D. researches, maximum 49 (39.52 percent) studies were used a sample size of ‘ ≥ 51 but ≤ 100 ’, 48 (32.21 percent) researches used a sample of size ‘ ≥ 101 but ≤ 200 ’, 12 (8.05 percent) researches used a sample of size ‘ ≤ 31 but ≤ 50 ’, 29 (19.46) percent of researches used a sample of size ‘ >200 ’, 3 (2.01

percent) researches used sample size of ' ≥ 6 but ≤ 30 ' and no researches used sample of size ' ≤ 5 '. While there were 12 (8.05 percent) researches not used a specific number of sample size due to the Philosophical and Explorative nature of the study.

Table 4.37

Details of the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014 with respect Size of the Sample

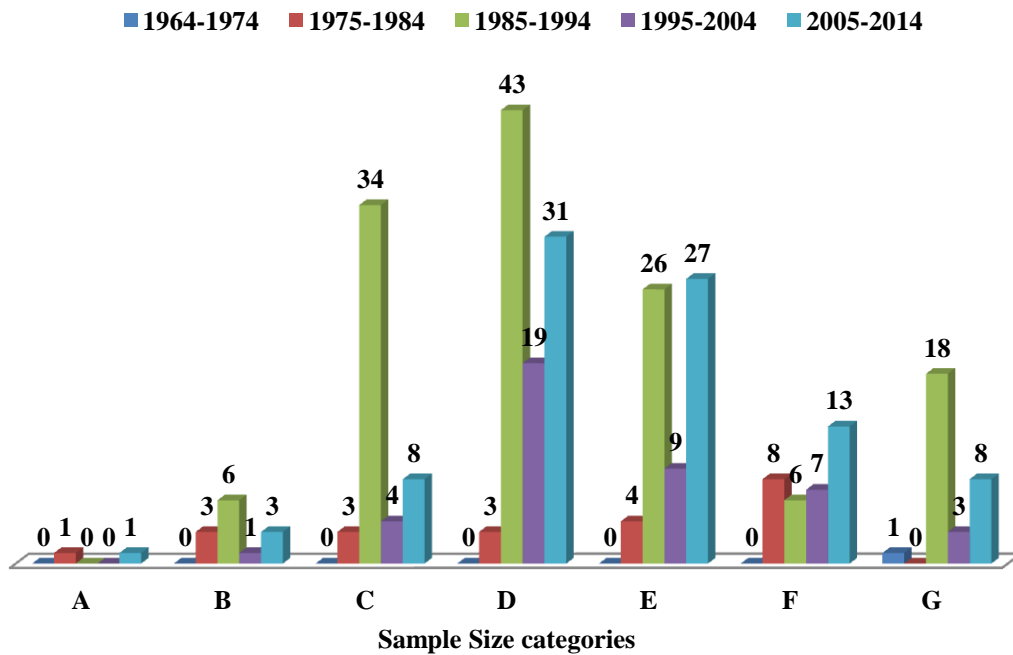
Year	Level	Sample Size							Total
		A	B	C	D	E	F	G	
1964-1974	Ph.D.	0	0	0	0	0	0	1	1
	M.Phil.	0	0	0	0	0	0	0	0
	Project	0	0	0	0	0	0	0	0
1975-1984	Ph.D.	0	0	0	1	4	8	0	13
	M.Phil.	0	0	0	0	0	0	0	0
	Project	1	3	3	2	0	0	0	9
1985-1994	Ph.D.	0	1	6	14	13	3	5	42
	M.Phil.	0	4	23	29	13	3	13	85
	Project	0	1	5	0	0	0	0	6
1995-2004	Ph.D.	0	1	3	19	9	6	3	41
	M.Phil.	0	0	1	0	0	0	0	1
	Project	0	0	0	0	0	1	0	1
2005-2014	Ph.D.	0	1	3	11	22	12	3	52
	M.Phil.	1	2	5	20	5	0	5	38
	Project	0	0	0	0	0	1	0	1
Overall	Ph.D.	0	3	12	45	48	29	12	149
	Ph.D.(%)	0.00	2.01	8.05	30.20	32.21	19.46	8.05	100.00
	M.Phil.	1	6	29	49	18	3	18	124
	M.Phil.(%)	0.81	4.84	23.39	39.52	14.52	2.42	14.52	100.00
	Project	1	4	8	2	0	2	0	17
	Project (%)	5.88	23.53	47.06	11.76	0.00	11.76	0.00	100.00
	Total	2	13	49	96	66	34	30	290
	Total (%)	0.69	4.48	16.90	33.10	22.76	11.72	10.34	100.00

Note:

A: Sample size ≤ 5 ; B: Sample size ≥ 6 but ≤ 30 ; C: Sample size ≤ 31 but ≤ 50 ; D: Sample size ≥ 51 but ≤ 100 ; E: Sample Size ≥ 101 but ≤ 200 ; F: Sample Size > 200 ; G: Sample Size = Not Applicable/not mentioned

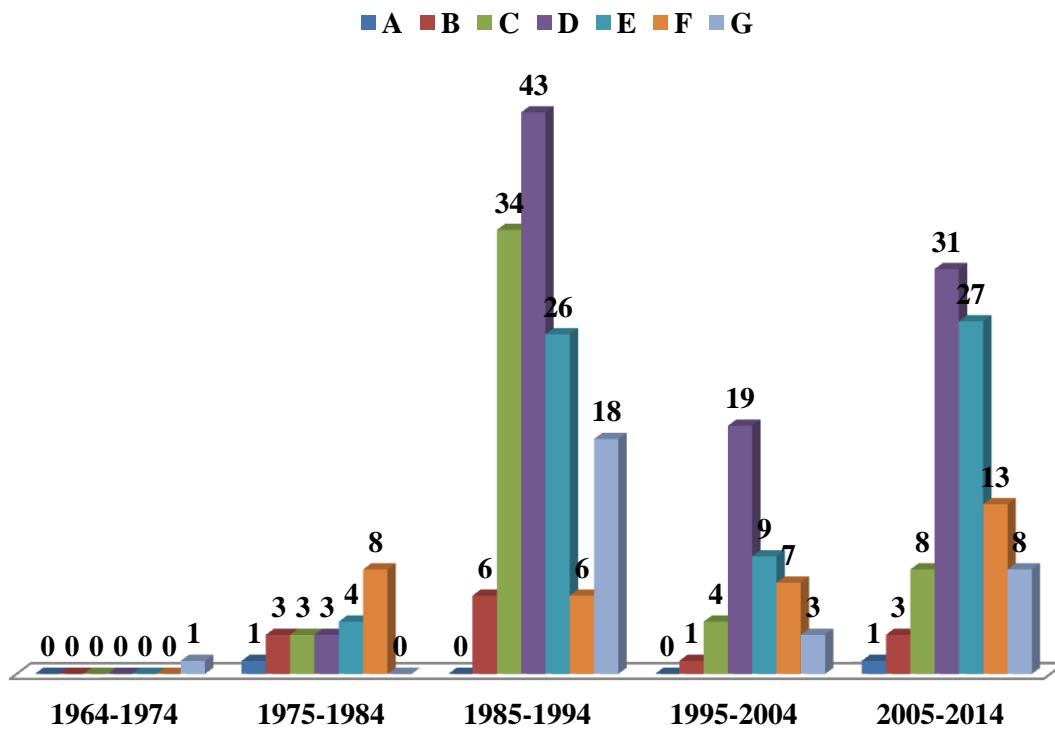
Graph 4.45

Trend of the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014 with respect to Size of the Sample



Graph 4.46

Trend of the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014 with respect to Size of the Sample



Out of 124 M.Phil. researches, maximum 49 (39.52 percent) studies were used a sample size of ' ≥ 51 but ≤ 100 ', 18 (14.52 percent) researches used a sample of size ' ≥ 101 but ≤ 200 ', 29 (23.39 percent) researches used a sample of size ' ≤ 31 but ≤ 50 ', 3 (2.42) percent of researches used a sample of size ' > 200 ', 6 (4.84 percent) researches used sample size of ' ≥ 6 but ≤ 30 ' and 1 (0.81 percent) researches used sample of size ' ≤ 5 '. While there were 18 (14.52 percent) researches not used a specific number of sample size due to the Philosophical and Explorative nature of the study.

Out of 17 Project Researches, maximum 8 (47.06 percent) studies were used a sample size of ' ≥ 31 but ≤ 50 ', no researches used a sample of size ' ≥ 101 but ≤ 200 ', 2 (11.76 percent) of researches used a sample of size ' > 200 ', 4 (23.53 percent) researches used sample size of ' ≥ 6 but ≤ 30 ' and 1 (5.88 percent) researches used sample of size ' ≤ 5 '.

Out of total 290 (Ph.D., M.Phil. and Project) researches, maximum 96 (33.10 percent) studies were used a sample size of ' ≥ 51 but ≤ 100 ', 66 (percent) researches used a sample of size ' ≥ 101 but ≤ 200 ', 49 (23.53 percent) researches used a sample of size ' ≤ 31 but ≤ 50 ', 34 (11.72 percent) of researches used a sample of size ' > 200 ', 13 (4.48 percent) researches used sample size of ' ≥ 6 but ≤ 30 ' and 2 (0.69 percent) researches used sample of size ' ≤ 5 '. While there were 30 (10.34 percent) researches not used a specific number of sample size due to the Philosophical and Explorative nature of the study.

From trend of the researches with respect to the Sample Size, at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014, it was clear that

- In decades 1985-1994, 1995-2004 and 2005-2014, there was a consistent dominance of taking ' ≥ 51 but ≤ 100 ' and Size ≥ 101 but ≤ 200 size of sample.
- The sample size of ' ≥ 101 but ≤ 200 ' and ' > 200 ' had more prevailed at Ph.D. level researches.
- The sample size of ' ≥ 51 but ≤ 100 ' and ' ≥ 101 but ≤ 200 ' had more prevailed at M.Phil. level researches.
- The sample size of ' ≥ 31 but ≤ 50 ' had more prevailed at Project level researches.
- Overall, the Sample size of ' ≥ 51 but ≤ 100 ' ' ≥ 101 but ≤ 200 ' were more popular among the researchers as far as the whole scenario of research was concerned.

From the above, it is evident that, the situation of researches as far as the sample sizes taken in the researches at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014 was concerned, a balanced distribution of different sample sizes was found.

4.5.7.3 ANALYSIS WITH RESPECT TO THE SAMPLING TECHNIQUE USED IN RESEARCH

For this, an item ‘Sampling technique used’ was placed in the Educational Research Information and Review Tool (Appendix—B). Table 4.38 & Graph 4.47 and Graph 4.48 depicts the situation regarding the Sampling technique used in researches at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014.

Table 4.38

Details of the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014 with respect to Type of the Sampling Technique Used

Year	Level	Sampling Techniques Used			Total
		Probabilistic Sampling	Non Probabilistic Sampling	Both	
1964-1974	Ph.D.	0	1	0	1
	M.Phil.	0	0	0	0
	Project	0	0	0	0
1975-1984	Ph.D.	11	1	1	13
	M.Phil.	0	0	0	0
	Project	6	3	0	9
1985-1994	Ph.D.	22	10	10	42
	M.Phil.	49	20	16	85
	Project	6	0	0	6
1995-2004	Ph.D.	22	9	10	41
	M.Phil.	1	0	0	1
	Project	1	0	0	1
2005-2014	Ph.D.	32	4	16	52
	M.Phil.	15	6	17	38
	Project	1	0	0	1
Overall	Ph.D.	87	25	37	149
	Ph.D.(%)	58.39	16.78	24.83	100.00
	M.Phil.	65	26	33	124
	M.Phil.(%)	52.42	20.97	26.61	100.00
	Project	14	3	0	17
	Project (%)	82.35	17.65	0.00	100.00
	Total	166	54	70	290
	Total (%)	57.24	18.62	24.14	100.00

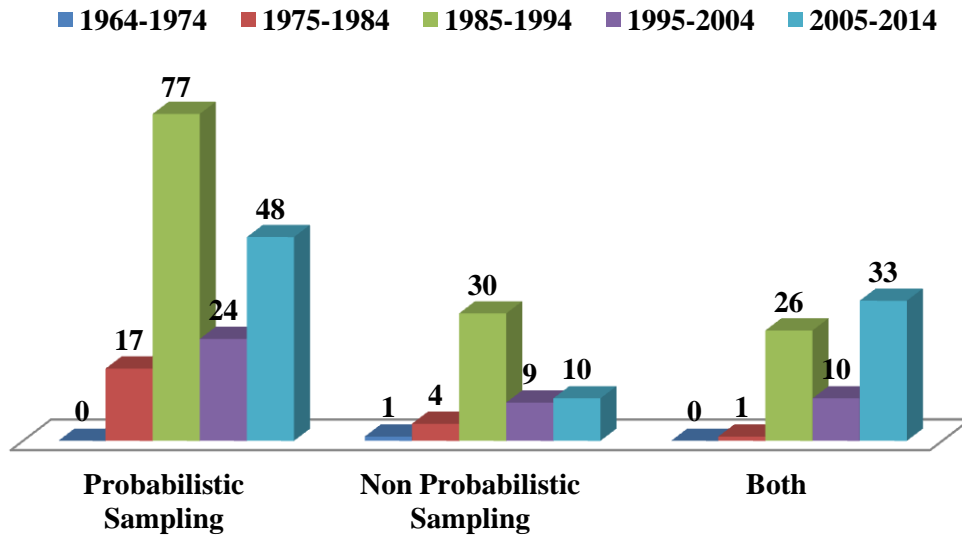
From Table 4.38, Graph 4.47 and Graph 4.48, it is evident that—

Out of 149 Ph.D. researches, in Maximum 87 (58.39 percent) researches Probabilistic sampling techniques were used, while in 25 (16.78 percent) researches

non-probabilistic sampling Techniques were used and in the rest 37 (24.83 percent) researches both the Non-Probabilistic and Probabilistic sampling techniques were used.

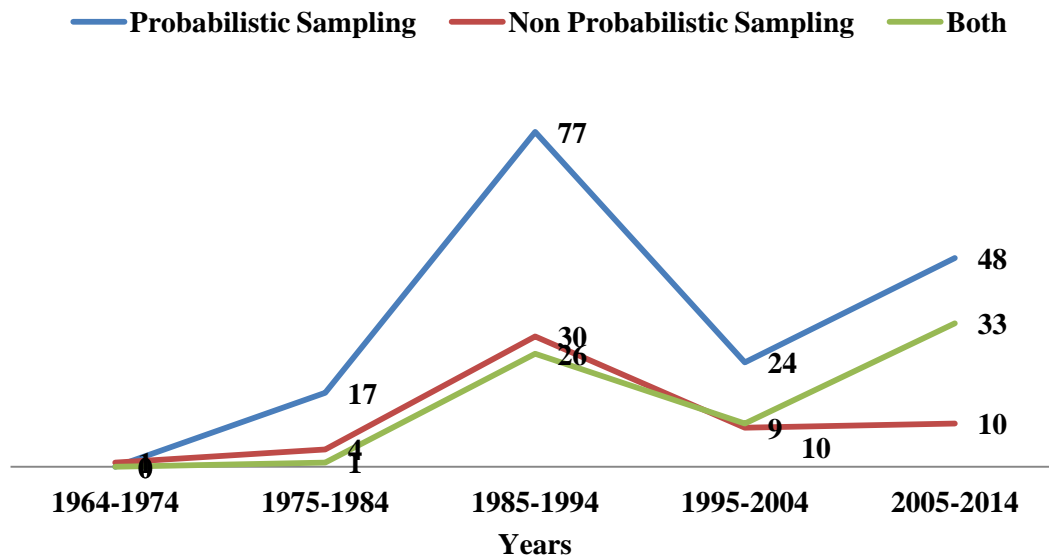
Graph 4.47

Details of researches with respect to the Type of Sampling



Graph 4.48

Trend of researches with respect to the Type of Sampling



Out of 124 M.Phil. researches, in Maximum 65 (52.42 percent) researches Probabilistic sampling techniques were used, while in 26 (20.97 percent) researches Non-Probabilistic sampling Techniques were used and in rest 33 (26.61percent)

researches both the Non-Probabilistic and Probabilistic sampling techniques were used.

Out of 17 Project Researches, in Maximum 14 (57.24 percent) research projects Probabilistic sampling techniques were used and in rest 3 (17.65 percent) researches Non-Probabilistic sampling Techniques were used.

Out of total 290 (Ph.D., M.Phil. and Project) researches, in Maximum 166 (57.24 percent) researches Probabilistic sampling techniques were used, while in 54 (18.62 percent) researches Non-Probabilistic sampling Techniques was used and in the rest 70 (24.14 percent) researches both the Non-Probabilistic and Probabilistic sampling was used.

From the trend of the researches with respect to the Sampling Technique, at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014, it was found that

- During the decade 2005-14, both types of Sampling techniques were surpassed the only usage of Non-Probabilistic sampling techniques.
- In most of the decades 1975-1984, 1985-1994, 1995-2004 and 2005-2014, there was a consistent dominance of taking Probabilistic Sampling techniques for the research. This may be to a large number of the Experimental researches being taken up out during the period 1975-2014.

Further, to explore which sort of Probabilistic and Non-Probabilistic Sampling techniques were more or less in use during the years 1964-2014 in the research carried out at the School of Education, Devi Ahilya Vishwavidyalaya, one item ‘Sort of Sampling Technique’ was placed in the *Educational Research Information and Review Schedule* (Appendix—B). The detailed results of emerged out from response to the question are depicted in Table 4.39, Graph 4.49, Graph 4.50 & Graph 4.51.

Table 4.39

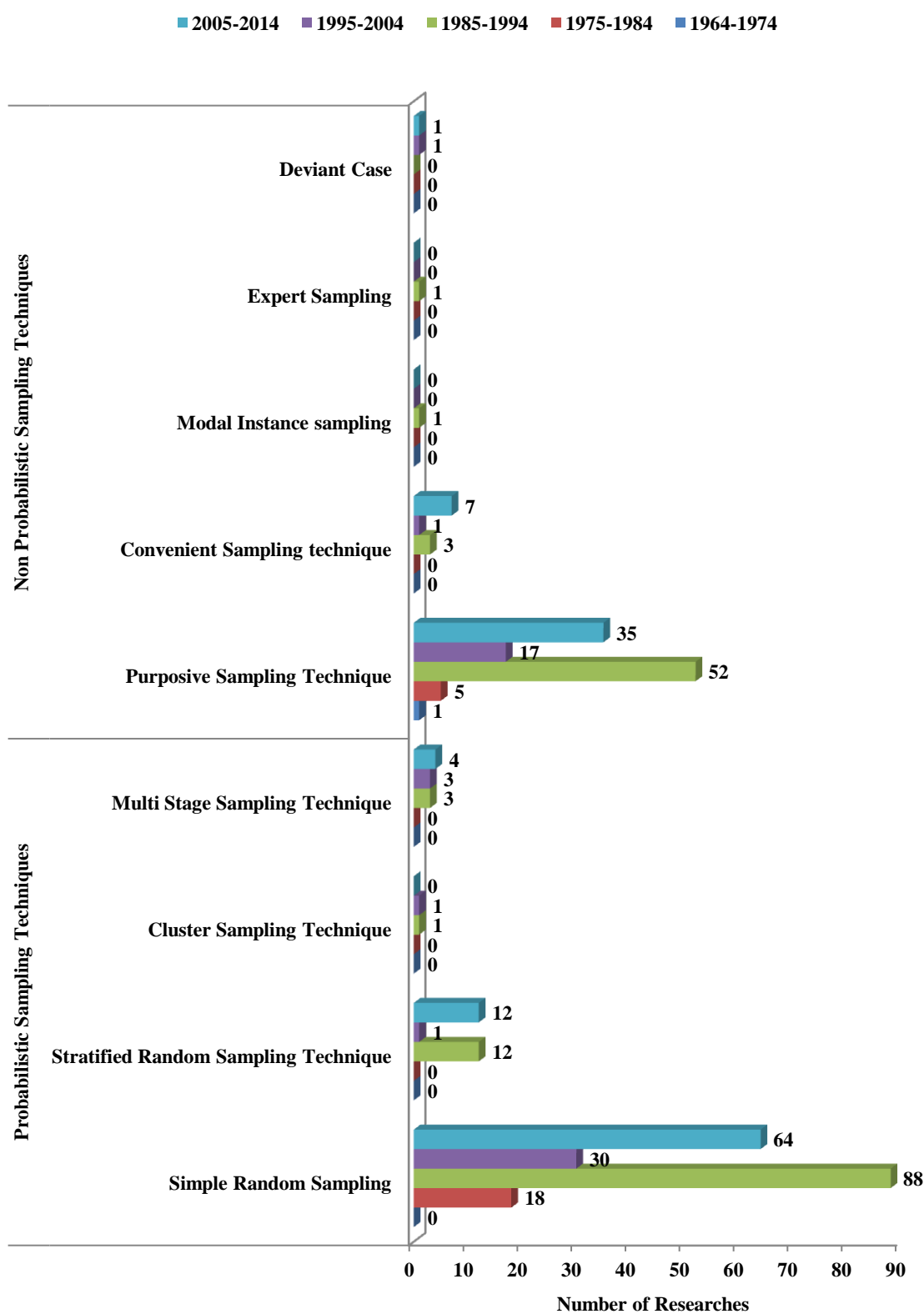
Trend of the Sampling Techniques used in the researches at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014

Sampling Techniques Used		Years															Ph.D.		M.Phil.		Project		TOTAL		% (out of 362)
		1964-1974			1975-1984			1985-1994			1995-2004			2005-2014											
		a	b	c	a	b	c	a	b	c	a	b	c	a	b	c	N	(%)	N	(%)	N	(%)	Total	(%)	
Probabilistic Sampling Technique	Simple Random	0	0	0	12	0	6	30	52	6	28	1	1	40	23	1	110	59.14	76	47.80	14	82.35	200	55.25	65.47
	Stratified Random	0	0	0	0	0	0	2	10	0	1	0	0	5	7	0	8	4.30	17	10.69	0	0.00	25	6.91	
	Cluster	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0.54	1	0.63	0	0.00	2	0.55	
	Multi Stage	0	0	0	0	0	0	0	3	0	3	0	0	2	2	0	5	2.69	5	3.14	0	0.00	10	2.76	
Non Probabilistic Sampling Technique	Purposive	1	0	0	2	0	3	19	33	0	17	0	0	19	16	0	58	31.18	49	30.82	3	17.65	110	30.39	34.53
	Convenient	0	0	0	0	0	0	0	3	0	1	0	0	0	7	0	1	0.54	10	6.29	0	0.00	11	3.04	
	Modal Instance	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0.54	0	0.00	0	0.00	1	0.28	
	Expert Sampling	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0.00	1	0.63	0	0.00	1	0.28	
	Deviant Case	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	2	1.08	0	0.00	0	0.00	2	0.55	
Total		1	0	0	14	0	9	52	103	6	52	1	1	67	55	1	186	100	159	100	17	100	362	100	100

Note: a—Ph.D., b—M.Phil., c—Project

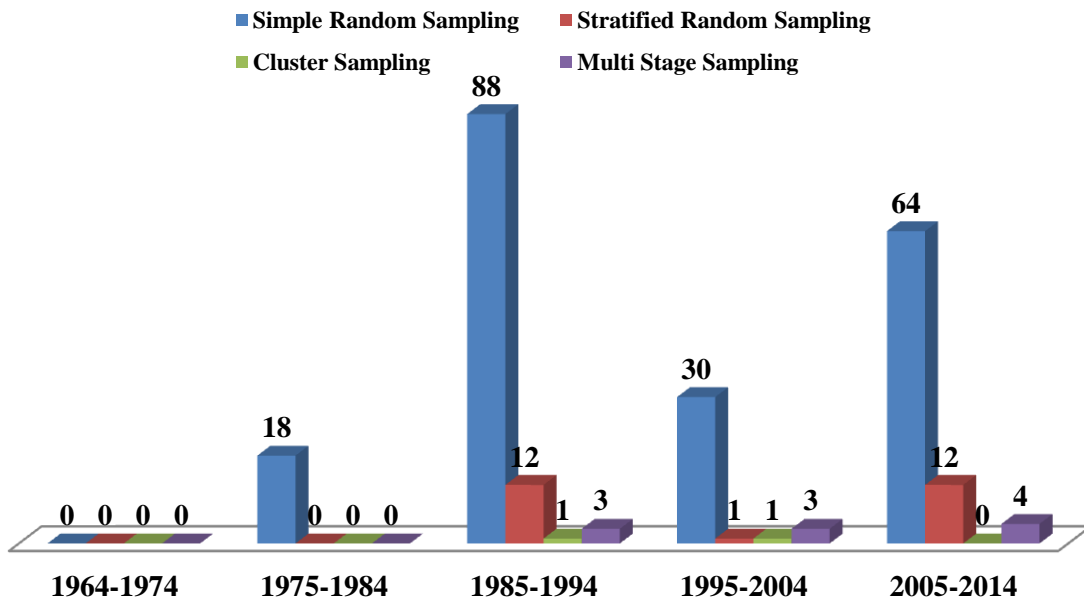
Graph 4.49

Details of the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014 with respect to Type of the Sampling Technique Used

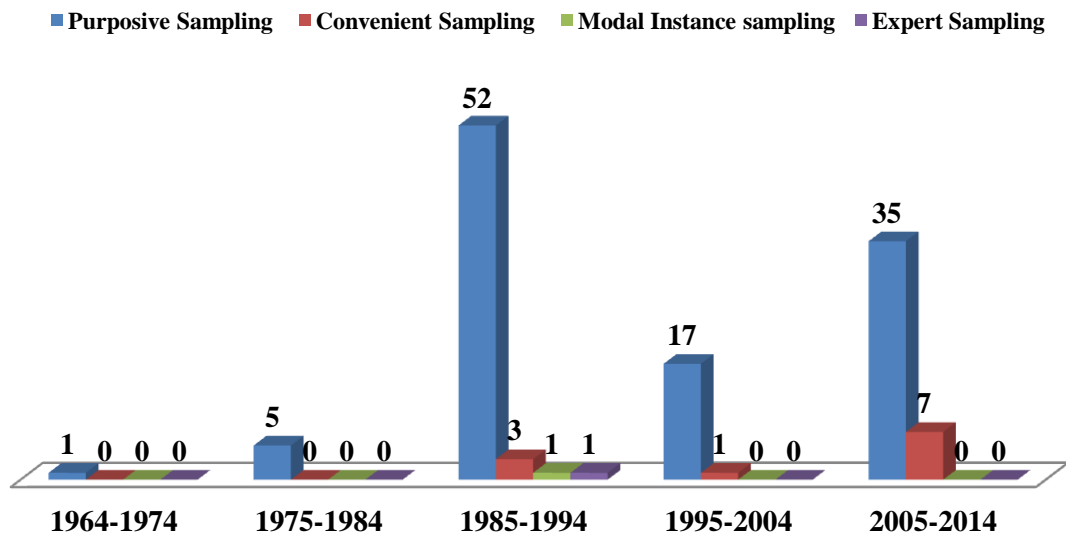


Graph 4.50

Trend of research with respect to the use of different types of Probabilistic sampling techniques

**Graph 4.51**

Trend of research with respect to the use of different types of Non-probabilistic Sampling techniques



From Table 4.39, Graph 4.49, Graph 4.50 & Graph 4.51, It is evident that —

In 149 Ph.D. researches, 186 tallies were marked, which shows in maximum 110 (59.14 percent) researches Simple random technique was utilized. In 58 (31.18) researches Purposive Sampling techniques were used, in 8 (4.3 percent) researches Stratified Random sampling was used, in 5 (2.69 percent) researches Multi-Stage Sampling was used, in 2 (1.08 percent) researches Deviant Case sampling was utilized

and in 1 (0.54 percent) researches each utilized Cluster Sampling, Convenient sampling, and Modal Instance sampling techniques.

In 124 M.Phil. researches, a total of 159 tallies were marked, which shows in maximum 76 (47.8 percent) researches Simple random technique was utilized. In 49 (30.82 percent) researches Purposive Sampling techniques were used, in 17 (10.69 percent) researches Stratified Random sampling was used, in 10 (6.29 percent) researches Convenient Sampling was used, in 5 (3.14 percent) researches Multi-Stage sampling was utilized and in 1 (0.63 percent) researches each utilized Cluster Sampling and Expert Sampling techniques. Modal Instance and Deviant Case sampling were not utilized in M.Phil. researches.

In 17 Project Researches, a maximum 14 (82.35 percent) researches Simple random technique was utilized. In 3 (17.65 percent) researches Purposive Sampling techniques were used. Stratified Random sampling, Convenient Sampling, Multi-Stage Sampling, Cluster Sampling, Expert Sampling, Modal Instance, and Deviant Case sampling was not utilized in Project researches which were in a voyage in other types of researches.

Out of total 290 (Ph.D., M.Phil. and Project) researches, a total of 362 tallies were marked, which shows in maximum 200 (55.25 percent) researches Simple random technique was utilized. In 110 (30.39 percent) researches Purposive Sampling techniques were used, in 25 (6.91 percent) researches Stratified Random sampling was used, in 11 (3.04 percent) researches Convenient Sampling was used, in 10 (2.76 percent) researches Multi-Stage sampling was utilized and in 2 (0.55 percent) researches each utilized Cluster Sampling and Deviant Case Sampling techniques. In one (0.28 percent) researches Modal Instance and Expert Sampling technique was utilized.

From trend analysis of the researches with respect to the use of different types of Probabilistic and Non Probabilistic sampling techniques, it is evident that

- Out of total 290 (Ph.D., M.Phil. and Project) researches, a total of 362 tallies were marked for how many times the Probabilistic and Non Probabilistic sampling techniques were utilized. Out of these 362 tallies, 65.47 percent times Probabilistic sampling technique was used. While in rest 34.53 percent times researchers preferred to use Non Probabilistic sampling technique.

- In all decades 1975-1984, 1985-1994, 1995-2004 and 2005-2014, among different types of Probabilistic sampling techniques, the Simple Random Sampling technique consistently dominated the researches.
- In all decades 1975-1984, 1985-1994, 1995-2004 and 2005-2014, among different types of the Non Probabilistic sampling techniques, the Purposive Sampling technique consistently dominated the researches.
- Overall, Purposive sampling technique and Simple Random Sampling dominated the sampling technique area in the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014.
- The rest of the sampling techniques was meagerly attended viz. Cluster Sampling Technique and Systematic Random Sampling techniques in the Probabilistic sampling Techniques & Snowball Sampling technique, Accidental/Haphazard, Modal Instance sampling, Expert Sampling, Quota Sampling, Heterogeneity or Diversity sampling in the Non- Probabilistic sampling Techniques was exhaustively not been taken up by any research.
- A need was felt, to pay balanced attention, towards the use of the different types of Sampling Techniques at the School of Education, Devi Ahilya Vishwavidyalaya, Indore.

4.5.8 ANALYSIS REGARDING TOOLS USED

For analyzing this component of Tools Used in the Research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014, three items viz. '*Nature of the Tool*', '*Type of the tool*' and '*Number of tools*' were placed in the *Educational Research Information and Review Schedule (Appendix—B)*. Here these four items were analyzed as below.

4.5.8.1 ANALYSIS WITH RESPECT TO THE NATURE OF THE TOOL

For this, an item 'Which type of tool was used in the research?' with the options of Standardized, Non-Standardized and both, was placed in the *Educational Research Information and Review Schedule (Appendix—B)*. Table 4.40 and Graph 4.52 depicts the scenario regarding the kind of tools used in the students' researches.

From Table 4.40 & Graph 4.52, it is evident that—

Out of 149 Ph.D. researches, in maximum 71 (47.65 percent) researches both standardized and Non-standardized tools were utilized. In 53 (35.57 percent) researches

preferred Non-standardized tools only, 14 (9.4 percent) researchers preferred Standardized tools only. Also in 11(7.38 percent) researches no tools were utilized due to the Philosophical nature of the study.

Out of 124 M.Phil. researches, in maximum 47 (37.9 percent) researches preferred non-standardized tools only. In 46 (37.1 percent) researches both standardized and Non-standardized tools were utilized, 21 (16.94 percent) researchers preferred Standardized tools only. Also in 10 (8.06 percent) researches no tools were utilized due to the Philosophical nature of the studies.

Table 4.40

Details of the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014 with respect to Nature of the Tools Used

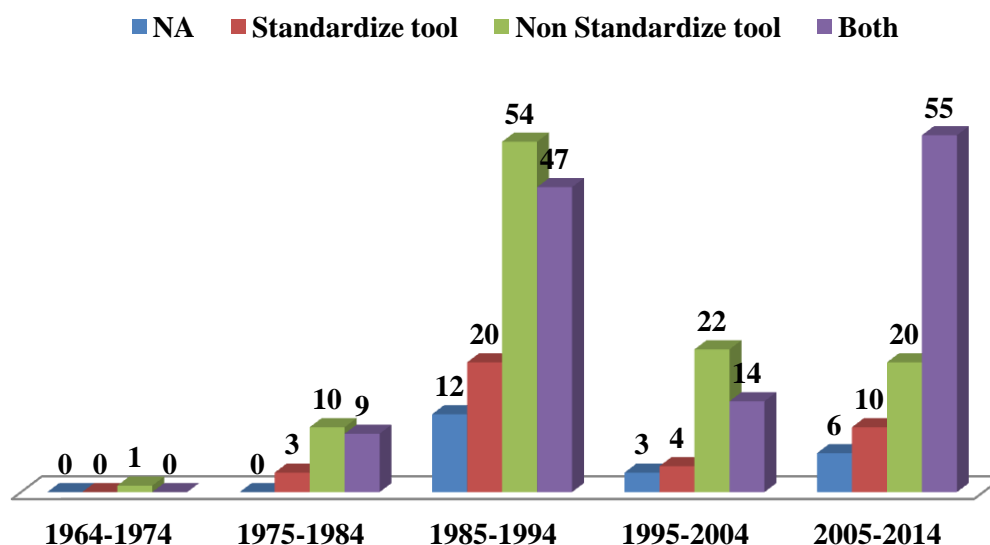
Year	Level	NA	Standardize	Non Standardize	Both	Total
1964-1974	Ph.D.	0	0	1	0	1
	M.Phil.	0	0	0	0	0
	Project	0	0	0	0	0
1975-1984	Ph.D.	0	1	5	7	13
	M.Phil.	0	0	0	0	0
	Project	0	2	5	2	9
1985-1994	Ph.D.	6	2	16	18	42
	M.Phil.	6	18	38	23	85
	Project	0	0	0	6	6
1995-2004	Ph.D.	3	4	21	13	41
	M.Phil.	0	0	0	1	1
	Project	0	0	1	0	1
2005-2014	Ph.D.	2	7	10	33	52
	M.Phil.	4	3	9	22	38
	Project	0	0	1	0	1
Overall	Ph.D.	11	14	53	71	149
	Ph.D.(%)	7.38	9.40	35.57	47.65	100.00
	M.Phil.	10	21	47	46	124
	M.Phil.(%)	8.06	16.94	37.90	37.10	100.00
	Project	0	2	7	8	17
	Project (%)	0.00	11.76	41.18	47.06	100.00
	Total	21	37	107	125	290
	Total (%)	7.24	12.76	36.90	43.10	100.00

Out of 17 Project Researches, in maximum 8 (47.06 percent) researches both standardized and Non-standardized tools were utilized. In 7 (41.18 percent) researches preferred non-standardized tools only, 2 (11.76 percent) researchers preferred Standardized tools only.

Out of total 290 (Ph.D., M.Phil. and Project) researches, in maximum 125 (43.1 percent) researches both standardized and Non-standardized tools were utilized. In 107 (36.9 percent) researches preferred non-standardized tools only, 37 (12.76 percent) researchers preferred Standardized tools only. Also in 21 (7.24 percent) researches no tools were utilized due to the Philosophical nature of the study.

Graph 4.52

Details of the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014 with respect to Nature of the Tools Used



Further analysis with respect to the nature of the tool used, in the researches at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014 shows

- Out of the total 290 researches, 42.20 percent of researches was found using Self-Made tools. Especially in most of the Experimental design study, Diagnostic study and Survey study the researcher uses a variety of standardized tools but at the same time the Criterion Reference tests in Experimental Studies, Diagnostic tests in Diagnostic studies and questionnaires/Interview schedules in Survey research were prepared by the researcher him/herself.
- In decades 1975-1984, 1985-1994 and 1995-2004 more use of the Non-Standardized test was dominating. In the decade 2005-2014, both standardized and Non-standardized tests were used.
- Thus, the Standardize and Self-Made tools dominated the tools used by the researchers at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014.

From the previous discussion, it is evident that Standardize tools and self-made tools dominated all other types of tools. Also, at the same time, 36.9 percent of the total tools used were of the Non-Standardized one. It was found to be a pleasing situation as the Researches were using the self-made tools, but at the same time, the questions of validity and reliability of these tools need satisfactory answers.

4.4.8.2 ANALYSIS WITH RESPECT TO THE NUMBER OF TOOLS

For this an item ‘How Many Numbers of Tool(s) is used?’ with the fill the blanks option was placed in the *Educational Research Information and Review Schedule* (Appendix—B). Table 4.41, Graph 4.53, Graph 4.54, Graph 4.55 and Graph 4.56 depicts the scenario regarding the Number of tools used in the researches. From Table 4.41, Graph 4.53, Graph 4.54, Graph 4.55 and Graph 4.56, it is evident that —

Out of 149 Ph.D. researches, Maximum three number of tools used in 31 (20.81 percent) researches, Four number of tools were used in 29 (19.46 percent) researches, Five number of tools were used in 23 (15.44 percent) researches, Seven number of tools were used in 13 (8.72 percent) researches, Eight number of tools were used in 12 (8.05 percent) researches, Two number of tools were used in 10 (6.71 percent) researches, Six number of tools were used in 9 (6.04 percent) researches, Ten number of tools were used in 5 (3.36 percent) researches and Nine number of tools were used in 3 (2.01 percent) researches, One number of tools were used in 2 (1.34 percent) researches. Eleven and Thirteen number of tools were used in 1 (0.67 percent) researches each. There were 10 (6.71 percent) researches where the number of tools cannot be quantified due to the use of Philosophical methods. As in these researches the researchers were using the Philosophical reasoning and thought process as a technique, rather than any concrete tools.

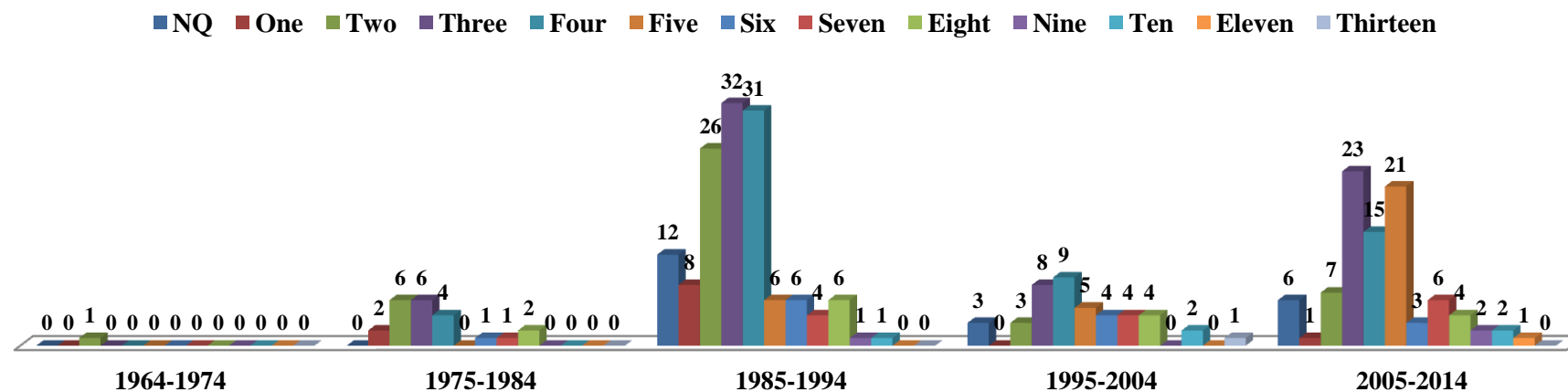
Table 4.41*Details of research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014 with respect to Number of Tools*

Year	Level	Number of Tools Used													Total
		NQ	1	2	3	4	5	6	7	8	9	10	11	13	
1964-1974	Ph.D.	0	0	1	0	0	0	0	0	0	0	0	0	0	1
	M.Phil.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Project	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1975-1984	Ph.D.	0	0	3	4	4	0	1	0	1	0	0	0	0	13
	M.Phil.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Project	0	2	3	2	0	0	0	1	1	0	0	0	0	9
1985-1994	Ph.D.	5	2	2	11	8	2	3	4	3	1	1	0	0	42
	M.Phil.	7	6	23	20	21	4	3	0	1	0	0	0	0	85
	Project	0	0	1	1	2	0	0	0	2	0	0	0	0	6
1995-2004	Ph.D.	3	0	2	8	9	5	3	4	4	0	2	0	1	41
	M.Phil.	0	0	0	0	0	0	1	0	0	0	0	0	0	1
	Project	0	0	1	0	0	0	0	0	0	0	0	0	0	1
2005-2014	Ph.D.	2	0	2	8	8	16	2	5	4	2	2	1	0	52
	M.Phil.	4	1	4	15	7	5	1	1	0	0	0	0	0	38
	Project	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Overall	Ph.D.	10	2	10	31	29	23	9	13	12	3	5	1	1	149
	Ph.D.(%)	6.71	1.34	6.71	20.81	19.46	15.44	6.04	8.72	8.05	2.01	3.36	0.67	0.67	100.00
	M.Phil.	11	7	27	35	28	9	5	1	1	0	0	0	0	124
	M.Phil.(%)	8.87	5.65	21.77	28.23	22.58	7.26	4.03	0.81	0.81	0.00	0.00	0.00	0.00	100
	Project	0	2	6	3	2	0	0	1	3	0	0	0	0	17
	Project (%)	0.00	11.76	35.29	17.65	11.76	0.00	0.00	5.88	17.65	0.00	0.00	0.00	0.00	100
	Total	21	11	43	69	59	32	14	15	16	3	5	1	1	290
	Total (%)	7.24	3.79	14.83	23.79	20.34	11.03	4.83	5.17	5.52	1.03	1.72	0.34	0.34	100

Note: NQ—Not Quantified

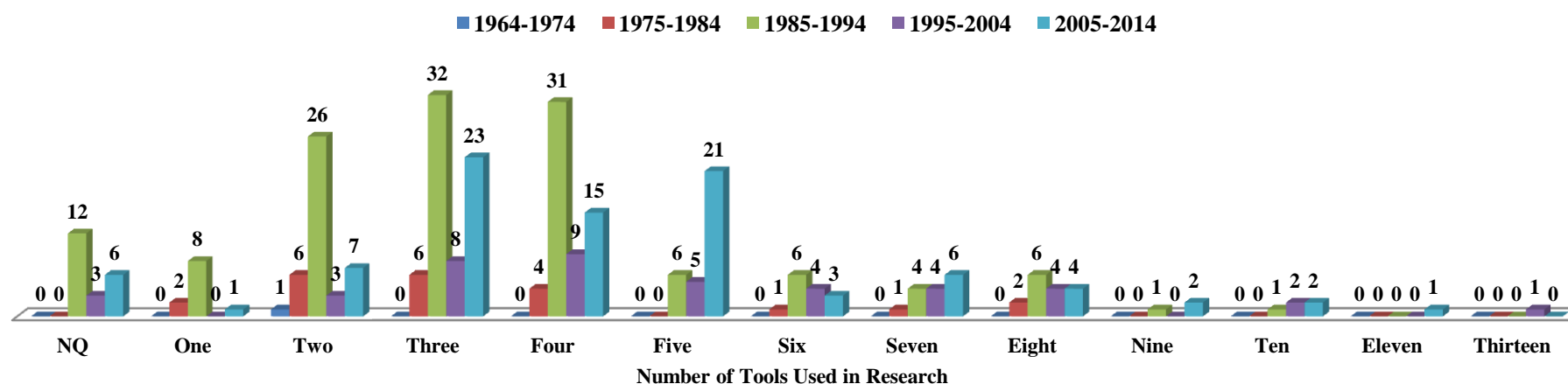
Graph 4.53

Trend of the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014 with respect to Number of Tools



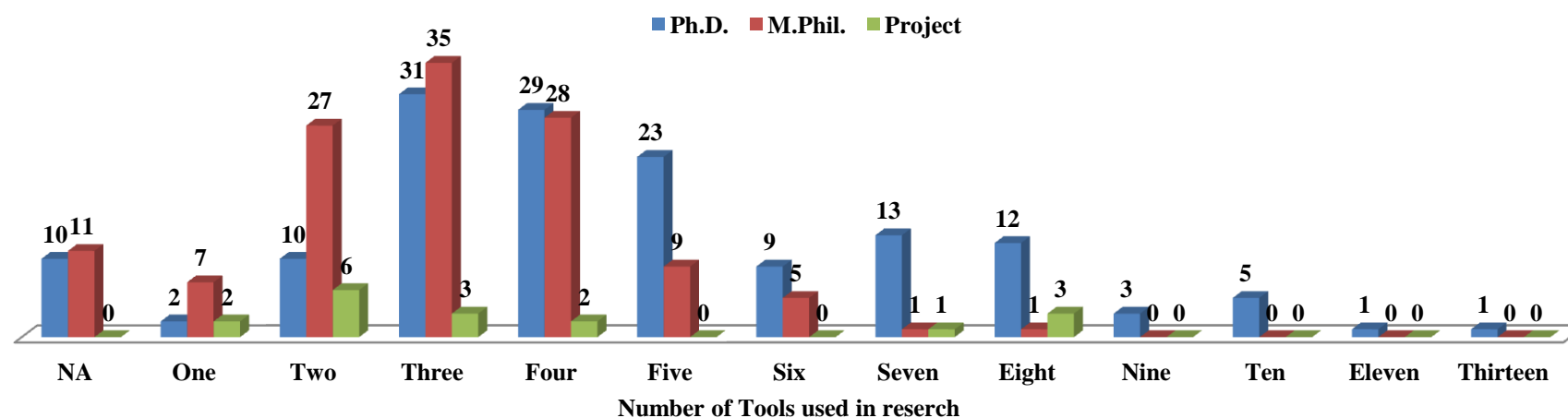
Graph 4.54

Details of the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014 with respect to Number of Tools

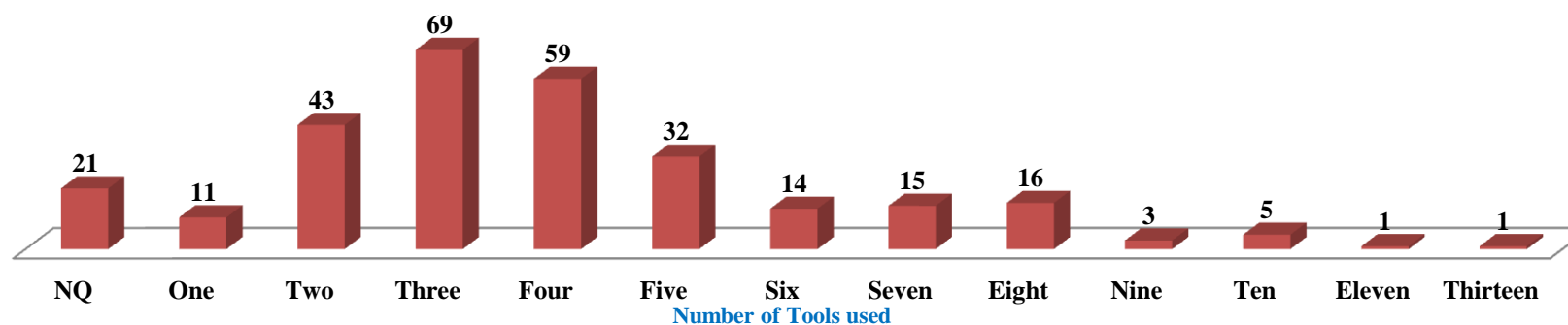


Graph 4.55

Level of research-wise details of the researches with respect to the number of tools used in studies

**Graph 4.56**

Overall scenario of the details of the researches with respect to the number of tools used in studies



Out of 124 M.Phil. Researches, Maximum three number of tools used in 35 (28.23 percent) researches, Four number of tools were used in 28 (22.58 percent) researches, Two number of tools were used in 27 (21.77 percent) researches, Five number of tools were used in 9 (7.26 percent) researches, One number of tools were used in 7 (5.65 percent) researches, Six number of tools were used in 5 (4.03 percent) researches. Seven and Eight numbers of tools were used in 1 (0.81 percent) researches. There were 11 (8.87 percent) researches, where the number of tools cannot be quantified due to the use of Philosophical methods. As in these researches, the researchers were using the Philosophical reasoning and thought process as a technique, rather than any concrete tools.

Out of 17 Research Projects, Maximum two numbers of tools were used in 6 (35.29 percent) researches, Three and Eight number of tools were used in 3 (17.65 percent) researches, Four number of tools were used in 2 (11.76 percent) researches, only One tool was used in 2 (11.76 percent) researches and Seven number of tools were used in 1 (5.88 percent) researches.

Out of 290 (149 Ph.D., 124 M.Phil. and 17 Research Projects) researches, maximum Three numbers of tools were used in 69 (23.79 percent) researches, Four numbers of tools were used in 59 (20.34 percent) researches, Two numbers of tools were used in 43 (14.83 percent) researches, Five numbers of tools were used in 32 (11.03 percent) researches, Eight numbers of tools were used in 16 (5.52 percent) researches, Seven numbers of tools were used in 15 (5.17 percent) researches, Six numbers of tools were used in 14 (4.83 percent) researches, One number of tools were used in 11 (3.79 percent) researches, Ten numbers of tools were used in 5 (1.72 percent) researches, Nine numbers of tools were used in 3 (1.03 percent) researches, Eleven and Thirteen numbers of tools were used in 1 (0.34 percent) researches each. There were 21 (7.24 percent) researches, where the number of tools cannot be quantified due to the use of Philosophical methods. As in these researches the researchers were using the Philosophical reasoning and thought process as technique, rather than any concrete tools.

From the trend of the tools used in researches at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014, it is evident that,

- A maximum of 13 numbers of tools was used in a Ph.D. Research Geed (2001). Also at the same time, 11 was the second-highest number of tools used in the Ph.D. research Sharma (2010).

- Also at the same time, 8 was the second-highest number of tools used in the M.Phil. Research Singh (1988).
- Eight is the maximum number of tools used in three projects entitled ‘A study of teaching competency of secondary school teaching (NCERT sponsored) by *B. K. Passi, S. K Sharma, 1981*’, ‘Effectiveness of strategy of teaching in models of teaching in terms of understanding, reaction and willingness of teacher educators (sponsored by NCERT. New Delhi Phase I)’ by *B. K. Passi, L. C. Singh, D. N. Sansanwal, 1986* and ‘Implementing training strategy and studying effectiveness of different variation in components of a training strategy for CAM/ITM in terms of understanding, competence, reactions, and willingness of students teachers’ sponsored by NCERT, New Delhi (Phase II) by *B.K. Passi, L.C. Singh, D.N. Sansanwal, 1986*.
- Maximum three numbers of tools were used by researchers more often during 1964-2014.
- There were 21 (7.24 percent) researches, where the number of tools cannot be quantified due to the use of Philosophical methods. As in these researches, the researchers were using the Philosophical reasoning and Thought process as tool rather than any concrete tools.
- The trend shows that the number of tools per research was increased as the decades during 1964-2014 were progressed.

Overall picture of the researches shows that, during 1964-2014, there was a substantial increase in the number of the tools to be used in the researches. It was also found that as time progressed during 1964-2014, the number of tools per Ph.D. was greater than the number of tools per M.Phil. research or Number of tools per Project research. One can elicit that the number of tools was increased as the level of research was increased.

4.5.8.3 ANALYSIS WITH RESPECT TO THE TYPE OF TOOL

For this an item ‘Which type of Tool is used?’ with the eleven options of viz. questionnaire/Information Schedule, Scales (Attitude/Aptitude scale), Observation Schedule/ Checklist Projective/ Non Projective, Interview/ Personal Interactions/ Discussions, Reaction scale/ Opinionaire/ Rating Scale, Achievement test/Criterion Reference Testing (CRT)/ (Norm Reference Testing (NRT), Diagnostic test, Test Batteries/Inventories & any other (Others (Philosophical/ Records/textbooks etc.) was

placed in the Research Review Tool. As multiple tools were in use in single research so the tallies were marked against the tools used. A total of 1139 tallies were marked with respect to the use of tools in the researches. The following table 4.42 and Graph 4.57 depicts the scenario regarding the Type of tools used in the students' researches.

Table 4.42

Details of the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014 with respect to Type of Tool

S. N.	Tools used	Ph.D.		M.Phil.		Project		Total	
		T	%	T	%	T	%	T	%
1	Questionnaire/ Information Schedule	85	12.18	45	11.87	5	8.06	135	11.85
2	Scales (Aptitude /Attitude)	61	8.74	36	9.50	4	6.45	101	8.87
3	Observation Schedules/ Check list	96	13.75	39	10.29	9	14.52	144	12.64
4	Projective/Non Projective	32	4.58	16	4.22	0	0.00	48	4.21
6	Interview/Personal Interactions/Discussions	43	6.16	18	4.75	6	9.68	67	5.88
7	Reaction scale/Opinionaire	114	16.33	59	15.57	8	12.90	181	15.89
8	Achievement test/CRT/NRT	104	14.90	54	14.25	12	19.35	170	14.93
9	Diagnostic test	14	2.01	9	2.37	0	0.00	23	2.02
10	Test Batteries/Inventories	121	17.34	91	24.01	8	12.90	220	19.32
11	Others (Philosophical/ Records/text books)	28	4.01	12	3.17	10	16.13	50	4.39
Total		698	100	379	100	62	100	1139	100.00

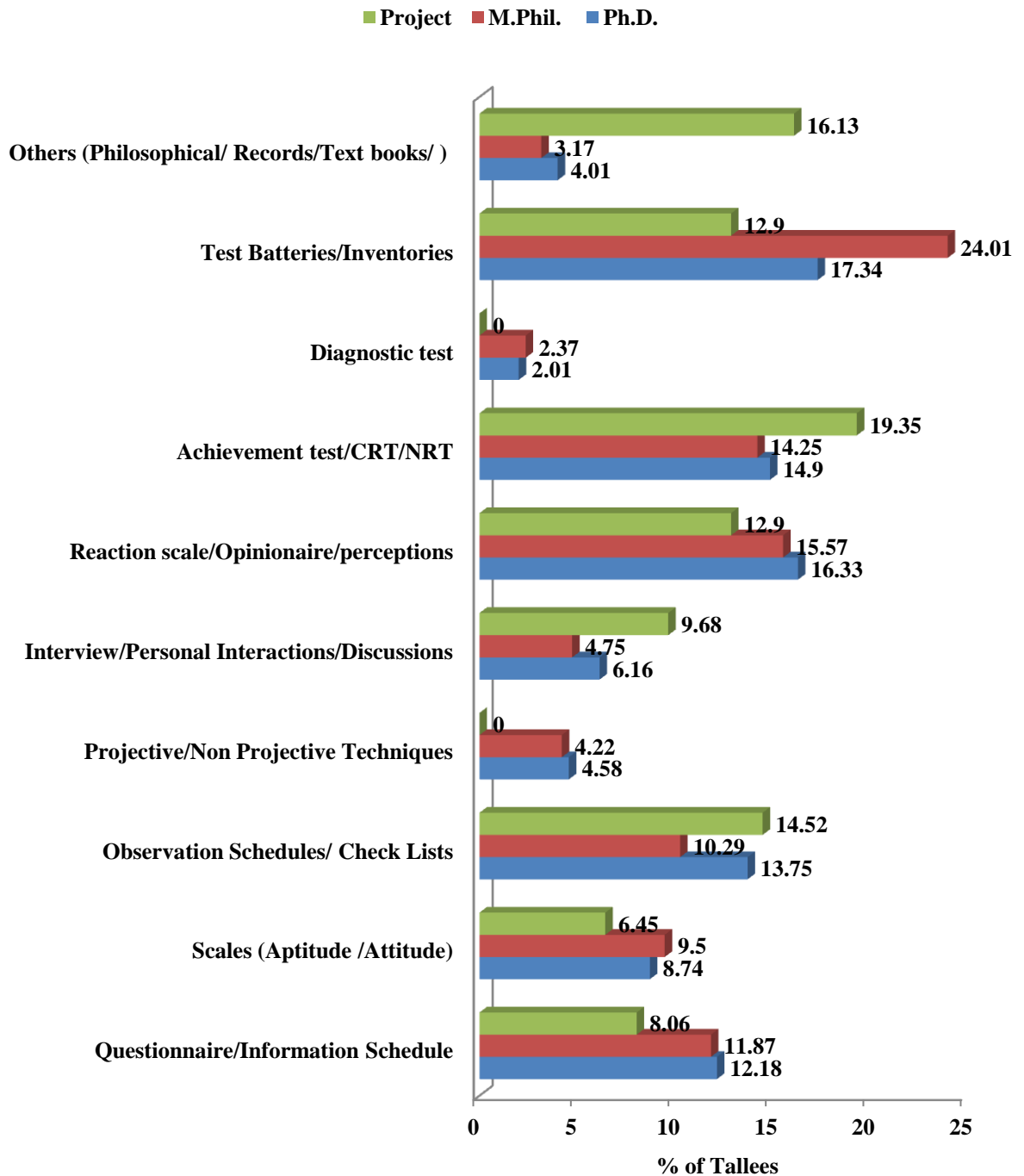
From Table 4.42 and Graph 4.57, it is evident that—

Out of the total 1139 different frequencies of tools 11 categories of the tools used in altogether (149 Ph.D., 120 M.Phil. and 17 Projects)) Researches.

Out of the 698 tallies marked therein 149 Ph.D. researches for 'type of tools used', Maximum Test-Batteries/Inventories were used 121(17.34 percent) times , Reaction scale/Opinionaire were used 114 (16.33 percent) times, Achievement test/CRT/NRT was used 104 (14.9 percent) times , Observation Schedules/ Checklist was used 96 (13.75 percent) times, Questionnaire/Information Schedule was used 85 (12.18 percent) times, Scales (Aptitude /Attitude) were used 61(8.74 percent) times, Interview/Personal Interactions/Discussions were used 43 (6.16 percent) times, Projective/Non Projective was used 32 (4.58 percent) times, Others (Philosophical/ Records/textbooks/) were used 28 (4.01 percent) times and the least Diagnostic tests were used 14 (2.01 percent) times.

Graph 4.57

Details of the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014 with respect to Type of Tool



Out of the 379 tallies marked in 124 M.Phil. researches for ‘type of tools used’, Maximum Test Batteries/Inventories were used 91 (24.01percent), Reaction scale/Opinionaire were used 59 (15.57 percent) times, Achievement test/CRT/NRT was used 54 (14.25 percent) times, Questionnaire/Information Schedule was used 45 (11.87 percent) times, Observation Schedules/ Checklist was used 39 (10.29 percent)

times, Scales (Aptitude /Attitude) were used 36 (9.5 percent) times, Interview/Personal Interactions/Discussions were used 18 (4.75 percent) times, Projective/Non Projective was used 16 (4.22 percent) times, Others (Philosophical/ Records/textbooks) were used 12 (3.17 percent) times, Diagnostic test were used 9 (2.37 percent) times.

Out of the 62 tallies marked in 17 M.Phil. researches for 'type of tools used' Achievement test/CRT/NRT were used 12 (19.35 percent) times, Others (Philosophical/ Records/textbooks/) were used 10 (16.13 percent) times, Observation Schedules/ Checklist was used 9 (14.52 percent) times, Test Batteries/Inventories were used 8 (12.9 percent) times, Reaction scale/Opinionaire were used 8 (12.9 percent) times, Interview/Personal Interactions/Discussions were used 6 (9.68 percent) times, Questionnaire/Information Schedule were used 5 (8.06 percent) times, Scales (Aptitude /Attitude) were used 4 (6.45 percent) times, Diagnostic test and Projective/Non Projective were not used at all.

Out of the 1139 tallies marked in 290 (Ph.D., M.Phil. and Project) researches for 'type of tools used', Maximum Test Batteries/Inventories were used 220 (19.32 percent) times, Reaction scale/Opinionaire were used 181 (15.89 percent) times, Achievement test/CRT/NRT was used 170 (14.93 percent) times, Observation Schedules/ Checklist was used 144 (12.64 percent) times, Questionnaire/Information Schedule were used 135 (11.85 percent) times, Scales (Aptitude /Attitude) were used 101 (8.87 percent) times, Interview/Personal Interactions/Discussions were used 67 (5.88 percent) times, Others (Philosophical/ Records/textbooks) were used 50 (4.39 percent) times, Projective/Non Projective were used 48 (4.21 percent) times, and in the least Diagnostic test was used 23 (2.02 percent) times.

Overall, during 1964-2014, Maximum Test Batteries/Inventories as tools dominated the researches at the School of Education, Devi Ahilya Vishwavidyalaya, Indore as compare to the different types of tools. Also, reaction scale and achievement tests were found second favorite tools among the student researches. Whereas Projective/Non-Projective techniques/tools and Diagnostic tests were used in fewer numbers. Thus, all other types of tools were also found meager attention in the researches at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014. The major tools used at the Research comprised of the following were —

- ❑ Maudsley Personality Inventory developed by Eysenck and adopted by Jalota & Kapoor

- ❑ J.C Raven's Standard Progressive Matrices Test for Intelligence.
- ❑ Standard Progressive Matrices by J.C. Raven
- ❑ Verbal Test of Creative Thinking developed by Baqer Mehndi.
- ❑ Abstract Reasoning Indian Adaptation of Differential Aptitude test developed by Ojha.
- ❑ Ahujha & Rey Choudhry dwara nirmat Shabdik Budhhi Parikshan
- ❑ Aupcharikettar Shiksha Kendra Nirikshan Prapatra.
- ❑ Bisht Battery of Stress Scale developed by Abha Rani Bisht.
- ❑ Deo-Mohan Achievement Motivation scale developed by P. Deo and A.Mohan.
- ❑ Dr, Pratibha dev dwara nirmat Atma sankalpana parikshan
- ❑ Frustration Test developed by Chouhan & Tiwari.
- ❑ Hussnain & Shrivastav ki Samajik Arthik Stithi mapni
- ❑ Immediate memory Span test developed by Agra Psychological Research cell.
- ❑ Level of Aspiration developed by C.B. Dwivedi.
- ❑ Measuring Achievement Motivation by Pragya Mehta.
- ❑ Passi test of Creativity developed by B.K. Passi.
- ❑ Pre Adolescence Dependency scale
- ❑ Satat Shiksha Kendra Nirikshan prapatra.
- ❑ Scientific Attitude scale developed by Sansanwal and Sathe.
- ❑ Self Confidence test developed by Bhawalkar
- ❑ Self Esteem Inventory developed by Thakur & Prasad.
- ❑ Shodhkarta dwara nirmat Jansankhya Jagrukta parikshan
- ❑ Sinha Comprehensive Anxiety test developed by Sinha & Sinha.
- ❑ The School Adjustment Inventory developed by Bhagia.
- ❑ Time Management Awareness Test developed by the Investigator.
- ❑ Value Clarification Test developed by the Investigator.
- ❑ Value Judgment Test developed by Investigator.
- ❑ Value Test developed by Rajkumar Ojha.
- ❑ Verbal Measure of Risk-taking developed by Bhawalkar.
- ❑ Verbal Measure of Self Confidence developed by Bhawalkar.
- ❑ Verbal Measure of Tolerance of Ambiguity developed by Bhawalkar

From the previous descriptions, it can be elicited that the students' researches at all levels were dominated by Standardize and self-made tools of diversifying nature and form.

4.5.9 ANALYSIS REGARDING DATA ANALYSIS TECHNIQUE USED

For analyzing this component of the Data Analysis technique used in the researches at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014, three items viz. 'Kind of Statistical techniques used', 'Sort of parametric and Non Parametric techniques used' and 'Qualitative techniques used' were accommodated in the *Educational Research Information and Review Tool* (Appendix—B). Here, responses against these three items were analyzed and interpreted as below.

4.5.9.1 ANALYSIS WITH RESPECT TO THE STATISTICAL TECHNIQUE USED IN RESEARCH

For this, an item 'Kind of Statistical technique used' was placed in the Educational Research Information and Review Tool (Appendix—B). Table 4.43 & Graph 4.58 depicts the situation regarding the Statistical technique used in researches. From Table 4.43 and Graph 4.58, it is evident that —

Out of 149 Ph.D. researches, maximum Parametric statistical techniques were used in 100 (67.11 percent) researches, Both parametric and Non-parametric statistics were used in 25 (16.78 percent) researches, and only Non-parametric statistics were used in 3 (2.01 percent) researches. None/Other types of techniques were used in 21 (14.09 percent) researches.

Out of 124 M.Phil. Ph.D. researches, maximum Parametric statistical techniques were used in 81 (65.32 percent) researches, Both parametric and Non-parametric statistics were used in 21 (16.94 percent) researches, None/Other types of techniques were used in 18 (14.52 percent) researches and only Non Parametric statistics were used in 4 (3.23 percent) researches.

Out of 17 Projects, maximum Parametric statistical techniques were used in 6 (35.29 percent) researches, Both parametric and Non-parametric statistics were used in 5 (29.41 percent) researches, None/Other 6 (35.29 percent) researches and Non Parametric statistics was not used in Projects.

Table 4.43

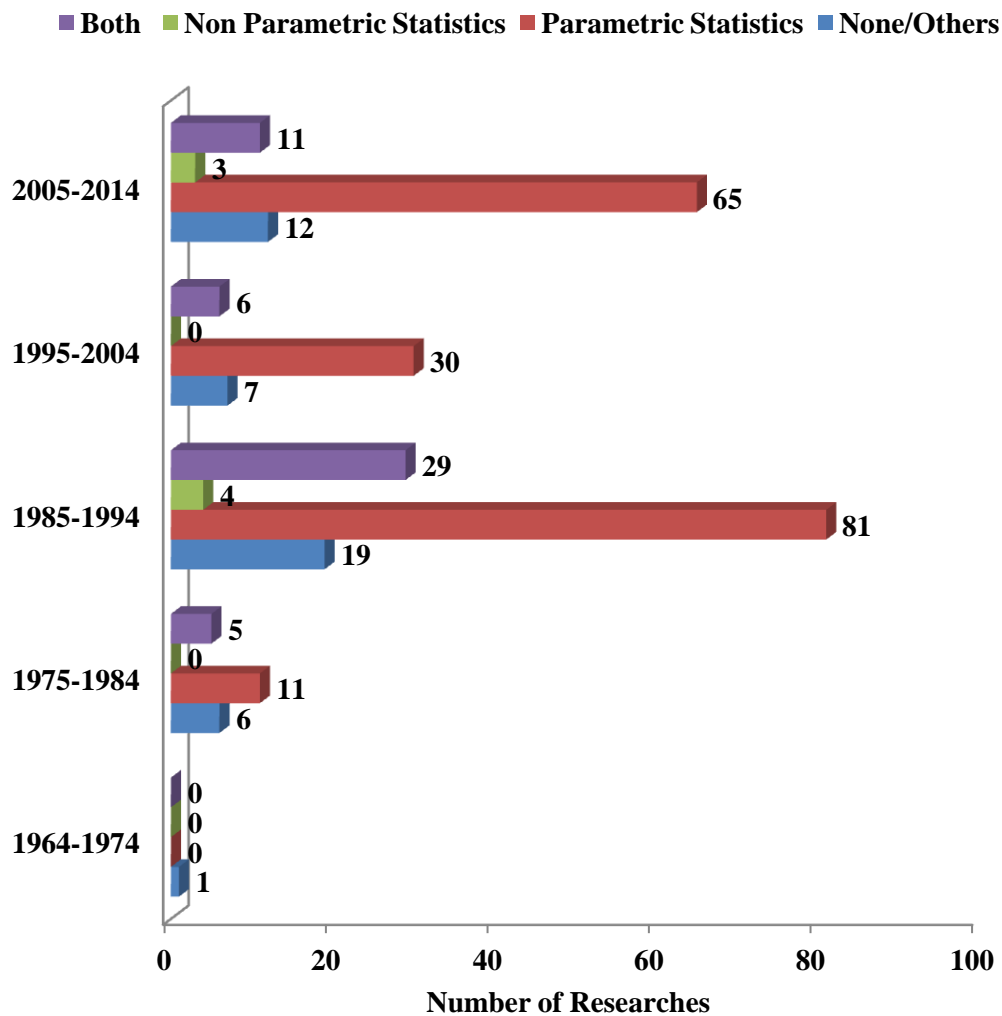
Details of the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014 with respect to Data Analysis technique used in Research

Year	Level	Statistical Inferential Data Analysis Technique				Total
		None/ Other	Parametric Statistics	Non- Parametric Statistics	Both	
1964- 1974	Ph.D.	1	0	0	0	1
	M.Phil.	0	0	0	0	0
	Project	0	0	0	0	0
1975- 1984	Ph.D.	2	7	0	4	13
	M.Phil.	0	0	0	0	0
	Project	4	4	0	1	9
1985- 1994	Ph.D.	6	27	1	8	42
	M.Phil.	13	52	3	17	85
	Project	0	2	0	4	6
1995- 2004	Ph.D.	6	29	0	6	41
	M.Phil.	0	1	0	0	1
	Project	1	0	0	0	1
2005- 2014	Ph.D.	6	37	2	7	52
	M.Phil.	5	28	1	4	38
	Project	1	0	0	0	1
Overall	Ph.D.	21	100	3	25	149
	Ph.D.(%)	14.09	67.11	2.01	16.78	100.00
	M.Phil.	18	81	4	21	124
	M.Phil.(%)	14.52	65.32	3.23	16.94	100
	Project	6	6	0	5	17
	Project (%)	35.29	35.29	0.00	29.41	100.00
	Total	45	187	7	51	290
	Total (%)	15.52	64.48	2.41	17.59	100.00

Out of 290 (Ph.D., M.Phil. and Projects), maximum Parametric statistical techniques were used in 187 (64.48 percent) researches, Both parametric and Non parametric statistics were used in 51 (17.59 percent) researches, None/Other 45 (15.52 percent) researches and only Non Parametric statistics were used in 7 (2.41 percent) researches.

Graph 4.58

Details of the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014 with respect to Data Analysis technique used in research



The trend of the researches with respect to the ‘Use of Statistical Techniques’ indicates that

- In all decades 1975-1984, 1985-1994, 1995-2004 and 2005-2014 Parametric statistical techniques were found dominating the statistical analysis domain
- In all decades 1975-1984, 1985-1994, 1995-2004 and 2005-2014 Non-Parametric Statistical techniques were not exploited properly
- In Philosophical and descriptive studies some other sorts of inferential techniques were used up which falls in the category of Qualitative research techniques. These studies were 15.52 percent of total researches.

Further, to find which kind of data analysis techniques used in researches at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014, the

tallies were counted for the different Parametric and Non Parametric techniques. Table 4.44, Table 4.45 and Graph 4.59 depicts the scenario with respect to the Kind of Data Analysis technique used. From Table 4.44, Table 4.45 and Graph 4.59 it is evident that —

For 149 Ph.D. researches, 468 tallies were marked for the use of the kind of Statistical techniques. Out of these 468 tallies, 376 (80.34 percent) tallies were marked under the Parametric statistical techniques and 92 (19.66 percent) tallies were marked for under Non-Parametric statistical techniques. It is evident that in 105 (22.44 percent) researches t-test (independent/Dependent) were used, in 98 (20.94 percent) researches ANOVA was used, in 68 (14.53 percent) researches ANCOVA was used, in 5 (1.07 percent) researches MANOVA was used, in 2 (0.43 percent) researches VARIMAX Rotation was used, in 98 (20.94 percent) researches Pearson ‘r’ was used. In the remaining 92 (19.66 percent) tallies Non-parametric statistical techniques were used. It is evident that Chi-Square test was used in 78 (16.67 percent) researches, Kruskal-Wallis ‘H’ test was used in 8 (1.71 percent) researches, Mann Whitney ‘U’ test was used in 4 (0.85 percent) researches, and Wilcoxon test was used in 2 (0.43 percent) researches.

For 124 M.Phil. researches, 360 tallies were marked for the use of the kind of Statistical techniques. Out of these 360 tallies, 288 (80 percent) tallies were marked under the parametric statistical techniques and 72 (20 percent) tallies were marked for under Non-Parametric statistical techniques. It is evident that — in 91 (25.28 percent) researches t-test (independent/Dependent) were used, in 64 (17.78 percent) researches ANOVA was used, in 48 (13.33 percent) researches ANCOVA was used, in 1 (0.28 percent) researches MANOVA was used, in 3 (0.83 percent) researches VARIMAX Rotation was used, in 81 (22.50 percent) researches Pearson ‘r’ was used. In the remaining 72 (20 percent) tallies Non-parametric statistical techniques were used. It is evident that the Chi-Square test was used in 64 (17.78 percent) researches, Kruskal-Wallis ‘H’ and Mann Whitney ‘U’ test were used in 3 (0.83 percent) researches each, and Wilcoxon test was used in 2 (0.56 percent) researches.

Table 4.44

Details of the research during 1964-2014 with respect to Data Analysis technique used in research

Statistical Technique Used	Type	Level of Research						Total	
		Ph.D.		M.Phil.		Project			
		F	%	F	%	F	%	F	%
Parametric Statistical techniques	t-test (Paired and Independent)	105	22.44	91	25.28	8	25.00	204	23.72
	ANOVA	98	20.94	64	17.78	4	12.50	166	19.30
	ANCOVA	68	14.53	48	13.33	3	9.38	119	13.84
	MANOVA	5	1.07	1	0.28	0	0.00	6	0.70
	Varimax Rotation	2	0.43	3	0.83	2	6.25	7	0.81
	Regression Equation	11	2.35	14	3.89	0	0.00	25	2.91
	Pearson 'r'	79	16.88	54	15.00	7	21.88	140	16.28
	Multiple Correlation	8	1.71	13	3.61	0	0.00	21	2.44
TOTAL (1)		376	80.34	288	80.00	24	75.00	688	80.00
Non-Parametric Statistical techniques	Wilcoxon	2	0.43	2	0.56	0	0.00	4	0.47
	Mann Whitney U	4	0.85	3	0.83	1	3.13	8	0.93
	Kruskal Wallis H	8	1.71	3	0.83	0	0.00	11	1.28
	Chi-Square	78	16.67	64	17.78	7	21.88	149	17.33
TOTAL (2)		92	19.66	72	20.00	8	25.00	172	20.00
TOTAL (1+2)		468	100.00	360	100.00	32	100.00	860	100.00

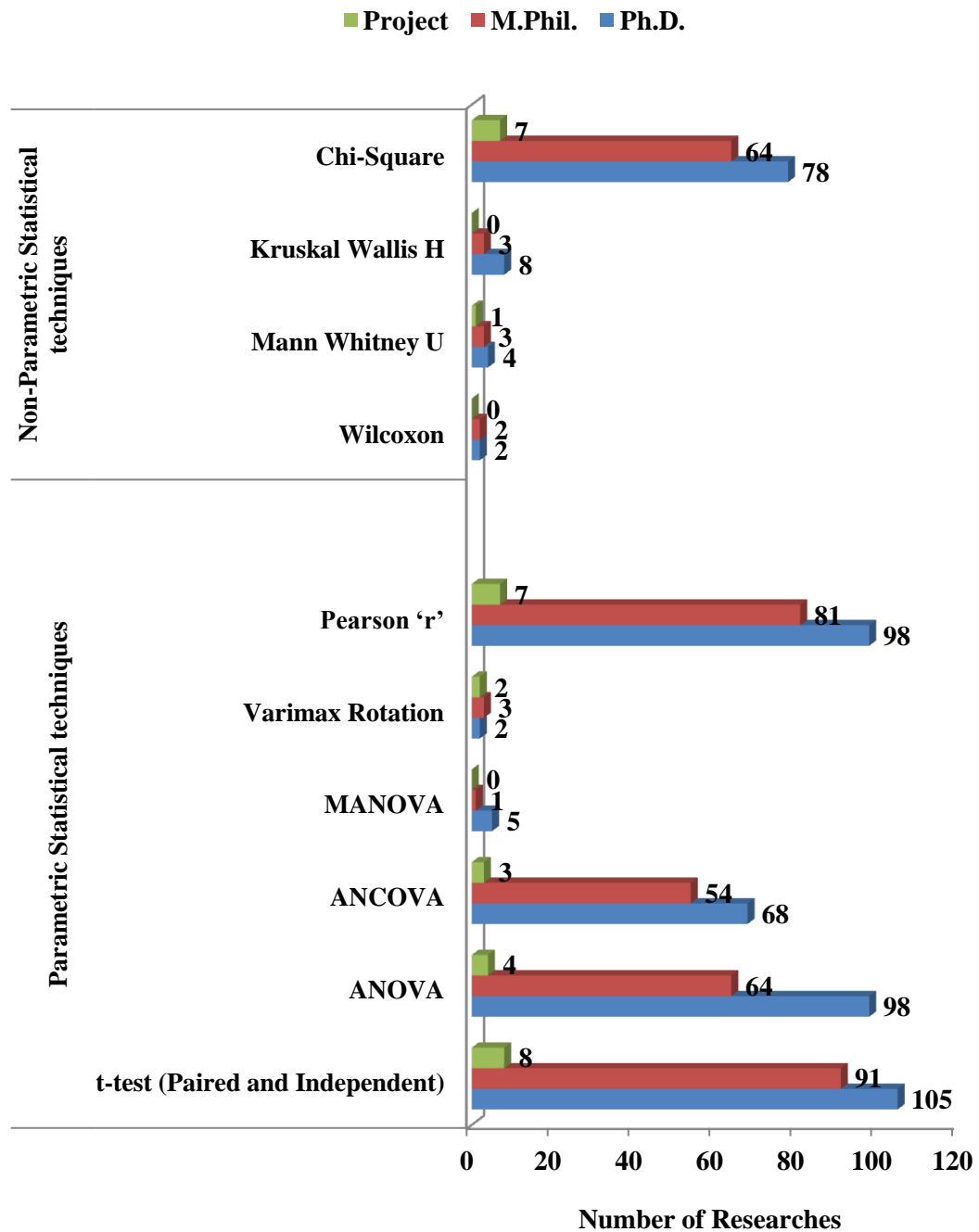
Table 4.45

Trend with respect to the use of Statistical Inference techniques

Statistical Inference Techniques	Ph.D.					M.Phil.					Projects					Total
	1964-74	1975-84	1985-94	1995-2004	2005-14	1964-74	1975-84	1985-94	1995-2004	2005-14	1964-74	1975-84	1985-94	1995-2004	2005-14	
None/Others	1	2	6	6	6	0	0	13	0	5	0	4	0	1	1	45
Parametric Statistics	0	7	27	29	37	0	0	52	1	28	0	4	2	0	0	187
Non Parametric Statistics	0	0	1	0	2	0	0	3	0	1	0	0	0	0	0	7
Both	0	4	8	6	7	0	0	17	0	4	0	1	4	0	0	51
Total	1	13	42	41	52	0	0	85	1	38	0	9	6	1	1	290

Graph 4.59

Details of the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014 with respect to Quantitative Data Analysis technique used in research



For 17 Projects, 32 tallies were marked for the use of the kind of Statistical techniques. Out of these 32 tallies, 24 (75 percent) tallies were marked under the Parametric statistical techniques and 8 (25 percent) tallies were marked for under Non-Parametric statistical techniques. It is evident that — in 8 (25 percent) researches t-test (independent/Dependent) were used, in 4 (12.5 percent) researches ANOVA was used, in 3 (9.38 percent) researches ANCOVA was used, in 2 (6.25 percent)

researches VARIMAX Rotation was used, in 7 (21.88 percent) researches Pearson 'r' was used. In the remaining 8 (25 percent) tallies Non-parametric statistical techniques were used. It is evident that the Chi-Square test was used in 7 (21.88 percent) researches and Mann Whitney 'U' test was used in 1 (3.13 percent) researches.

For total 290 (Ph.D., M.Phil. and Project) researches, 860 tallies were marked for the use of the kind of Statistical techniques. Out of these 360 tallies, 688 (80 percent) tallies were marked under the parametric statistical techniques and 172 (20 percent) tallies were marked for under Non-Parametric statistical techniques. It is evident that — in 204 (23.72 percent) researches t-test (independent/Dependent) were used, in 166 (19.30 percent) researches ANOVA was used, in 119 (13.84 percent) researches ANCOVA was used, in 6 (0.7 percent) researches MANOVA was used, in 7 (0.83 percent) researches VARIMAX Rotation was used, in 186 (22.50 percent) researches Pearson 'r' was used. In the remaining 172 (20 percent) tallies Non-parametric statistical techniques were used. It is evident that Chi-Square test was used in 149 (17.33 percent) researches, Kruskal-Wallis 'H' test was used in 11 (1.28 percent) researches, Mann Whitney 'U' test was used in 8 (0.93 percent) researches and Wilcoxon test was used in 4 (0.47 percent) researches.

From the trend of the researches at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, with respect to the 'Use of Statistical Techniques' indicates that

- In all decades 1975-1984, 1985-1994, 1995-2004 and 2005-2014 Parametric statistical techniques were found dominating the statistical analysis domain.
- In all decades 1975-1984, 1985-1994, 1995-2004 and 2005-2014 Non-Parametric Statistical techniques were not exploited properly.
- The t-test (dependent and Independent) was found to be the most exploited technique among Parametric statistical techniques.
- Chi-Square test was found to be the most exploited technique among all other Non-Parametric statistical techniques.

Overall it can be elicited easily that Parametric statistical techniques for making inferences were used abundantly and less attention was paid for to use Non-Parametric statistics in the researches at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014. One can easily elicit that Parametric statistics was dominating the Area of Analysis in research.

From the previous description, it was concluded that in Parametric statistical techniques t-Test, Pearson 'r', ANOVA and ANCOVA dominates the tests used in the researches at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014. While meager or less attention was paid to Non-parametric statistical techniques like Kruskal Wallis H, McNemar, Kolmogorov Smirnov Z and Runs Test, Kruskal-Wallis one-way analysis of variance by ranks, Friedman two-way analysis of variance by ranks, Siegel–Tukey test, Spearman's rank correlation coefficient and Wald–Wolfowitz runs test.

4.5.9.2 ANALYSIS WITH RESPECT TO THE QUALITATIVE DATA ANALYSIS TECHNIQUE USED IN RESEARCH

For this an item 'Qualitative Data Analysis technique used' was placed in the *Educational Research Information and Review Tool* (Appendix—B). The following Table 4.32 & Graph 4.32 depicts the situation regarding the Qualitative Data Analysis technique used in Researches.

Vote/Frequency Count and Percentage as techniques of the Analysis was used in every Quantitative and Qualitative research. But in this section, only the studies mentioning Qualitative Research techniques were included. The details of the result are mentioned in Table 4.46 and Graph 4.60, it is evident that—

Table 4.46

Details of the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014 with respect to Qualitative Data Analysis technique used in research

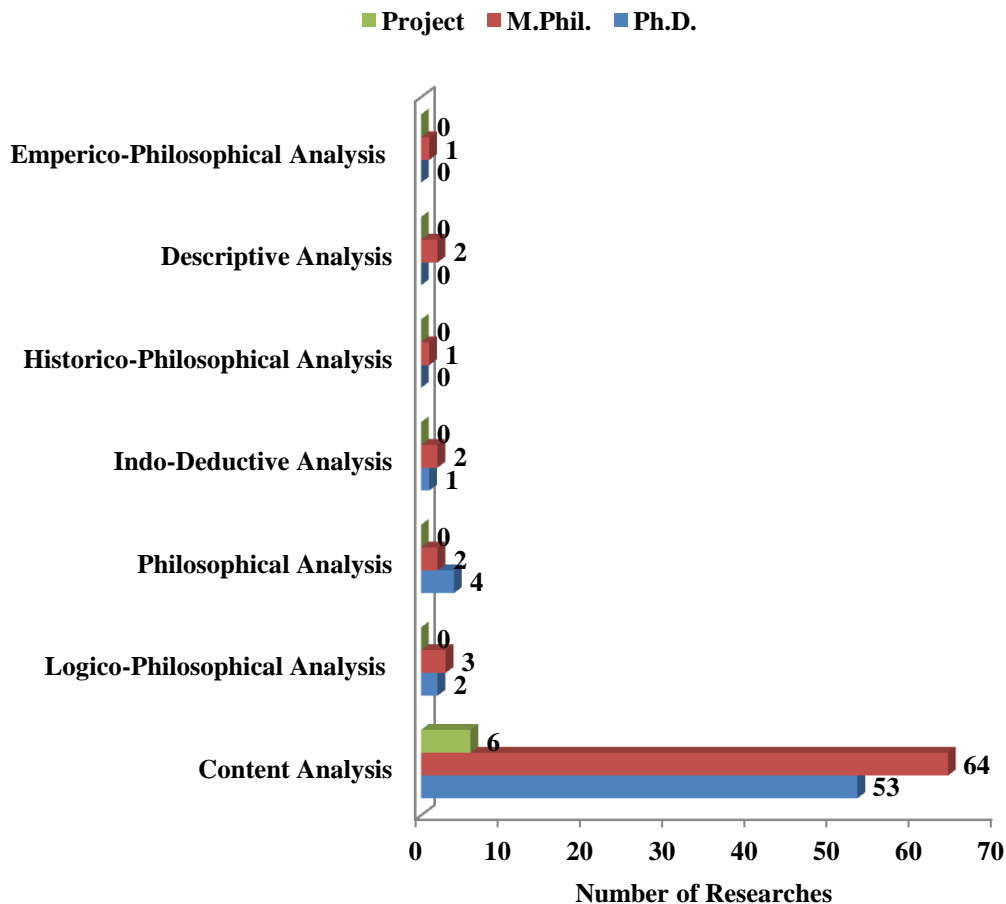
Type	Ph.D.		M.Phil.		Project		Total	
	N	(%)	N	(%)	N	(%)	N	(%)
Content Analysis	53	88.33	64	85.33	6	100	123	87.23
Logico-Philosophical Analysis	2	3.33	3	4.00	0	0	5	3.55
Philosophical Analysis	4	6.67	2	2.67	0	0	6	4.26
Indo-Deductive Analysis	1	1.67	2	2.67	0	0	3	2.13
Historico-Philosophical Analysis	0	0.00	1	1.33	0	0	1	0.71
Descriptive Analysis	0	0.00	2	2.67	0	0	2	1.42
Emperico-Philosophical Analysis	0	0.00	1	1.33	0	0	1	0.71
Total	60	100.00	75	100.00	6	100	141	100.00

Out of total 290 (Ph.D., M.Phil. and Project) researches, 249 (85.86 percent) researches were of Quantitative Nature, 31 (10.69 percent) were of Qualitative nature and the remaining 10 (3.45) uses the Mixed Methodology. In these 31 Qualitative and 10 Mixed methodological researches comprised of part of Survey researches, all

Philosophical researches, some Sociological researches, Descriptive researches, and Diagnostic researches used the Qualitative research methods for making the interpretations and inferences.

Graph 4.60

Details of the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014 with respect to Qualitative Data Analysis technique used in research



Out of 149 Ph.D. researches, 60 researches were used the Qualitative Analysis in their research. It is evident that, maximum, Content Analysis was used in 53 (88.33 percent) Researches, Philosophical Analysis was used in 4 (6.67 percent) researches, Logico-Philosophical Analysis was used in 2 (3.33 percent) Researches, Indo-Deductive Analysis was used in 1 (1.67 percent) Researches.

Out of 124 M.Phil. Researches, 75 researches were used in the Qualitative research Analysis. Maximum Content Analysis was used in 64 (85.33 percent) researches, Logico-Philosophical Analysis was used in 3 (4 percent) researches, Philosophical Analysis was used in 2 (2.67 percent) researches, Indo-Deductive Analysis was used in 2 (2.67 percent) researches, Descriptive Analysis was used in

2(2.67 percent) researches, Historico-Philosophical Analysis and Emperico-Philosophical Analysis was used in 1 (1.33 percent) researches each.

Out of 17 Projects, 6 researches were used Qualitative research Analysis. All such researches were used 'Content Analysis' as a data analysis technique.

Out of a total of 290 researches, 141 researches used the Qualitative research Analysis techniques. Content Analysis was used in 123 (87.23 percent) researches, Philosophical Analysis was used in 6 (4.26 percent) researches, Logico-Philosophical Analysis was used in 5 (3.55 percent) researches, Indo-Deductive Analysis was used in 3 (2.13 percent) researches, Descriptive Analysis was used in 2 (1.42 percent) researches, Historico-Philosophical Analysis and Emperico-Philosophical Analysis was used in 1 (0.71 percent) researches.

During 1964-2014, the trend of researches at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, with respect to the Qualitative Data Analysis technique used in research clearly shows that

- Content analysis as a technique of Analyzing data was used in all Case Study researches, Comparative Studies, Diagnostic Research, Descriptive Research, Explorative Research, and Philosophical Research and in some of Survey Researches. This technique was also used in some Experimental researches too.
- Some of the novel analytical techniques viz. Historico-Philosophical Analysis, Emperico-Philosophical Analysis, and Logico-Philosophical Analysis were also on a voyage at the School of Education, Devi Ahilya Vishwavidyalaya, Indore.
- Logico-Philosophical Analysis as a technique was used in M.Phil. researches by Sahoo (1986) entitled 'An Analytical Study of the Educational Principles implicit in Sarvodaya Philosophy', by Sahoo (1987) entitled 'An Analytical Study of the Economic Principles implicit in Sarvodaya Philosophy' and by Rath (1987) entitled 'A Philosophical Analysis of Value-Education'.
- 'Logico-Philosophical Analysis' as a technique was used in Ph.D. research entitled 'Mechanistic and Organisamic viewpoints in Biology and their trace in Education' by Vashishtha (1986) and in 'The Concept of Life In Modern Biology and Indian Philosophy and Its Implications In the Curriculum of Secondary Schools' by Garg (1990).

- The Historico-philosophical method was used in M.Phil. research by Mishra (1989) entitled ‘A Philosophical study of the Educational status of women in Vedic period’.
- The Emperico-Philosophical Analysis was used in M.Phil. research entitled ‘Relevance of Secondary Education for the rural people-in depth study of an interior village’ by Acharaya (1988).

Overall, from the aforesaid, major Qualitative Data Analysis techniques like Triangulation, Inductive Analysis, Deductive Analysis, Data Displaying, and Creative Synthesis was completely neglected in all levels of Research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014. The meager amount of researches was conducted in pure Qualitative area or using qualitative Analytical techniques.

4.5.10 ANALYSIS REGARDING REFERENCE STYLE USED IN THE RESEARCH

There are many referencing styles for diversified disciplines so as to report a piece of research in a uniform manner for its global acceptance and understanding. APA, MLA, Turabian, Harvard, Chicago, ISO, etc. are many such styles, The commonly acclaimed referencing style for the discipline of Education and Psychology is the American Psychological Association (APA) reference style. The APA manual had its initial edition went through two revisions: one in 1957, and one in 1967. Subsequent editions were released in 1974, 1983, 1994, 2001, and 2009. The Second referencing style which runs into the academic disciplines of Humanities is the Modern Language Association (MLA) referencing Style. The *MLA Style Sheet*, first published in 1951 and revised in 1970. The current component is basically to check the Reference Style used/followed in the researches at the School of Education, Devi Ahilya Vishwavidyalaya, during 1964-2014.

For analyzing this component of Reference Style used/followed, in the research at the School of Education, Devi Ahilya Vishwavidyalaya, during 1964-2014, four head items were placed in the Educational Research Information and Review Tool (Appendix—B). These four head items related to *Reference style*, *Footnotes/Endnotes*, and *Legibility and proper make of tables & graphs in the Research* were analyzed as below.

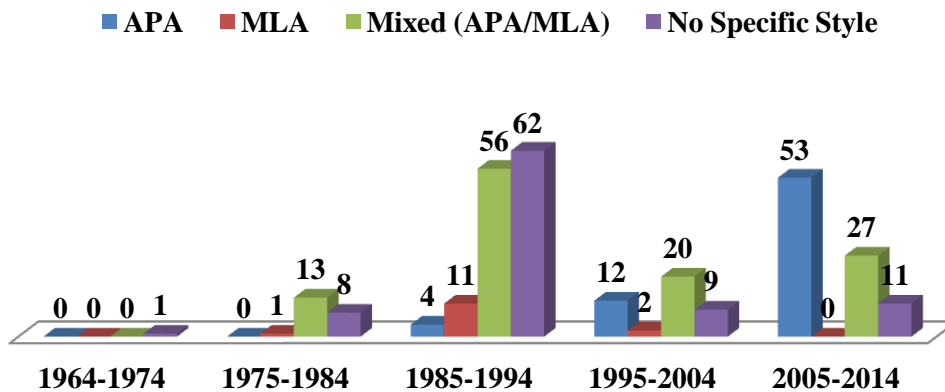
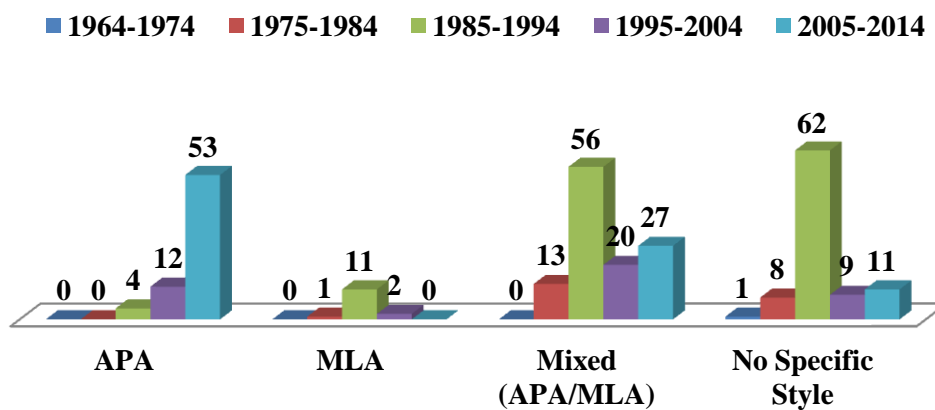
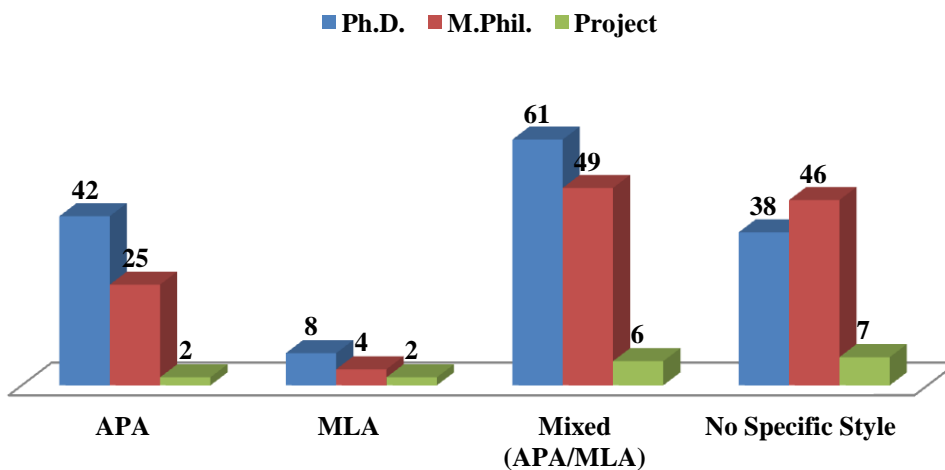
4.5.10.1 ANALYSIS OF RESEARCH WITH RESPECT TO STYLE OF THE REFERENCING USED

For this, an item ‘Which type of referencing was followed?’ with the options of APA, MLA, TURABIAN & Any other, was placed in the Educational Research Information and Review Tool (Appendix—B). Table 4.47, Graph 4.61, Graph 4.62 and Graph 4.63 depicts the situation regarding the kind of research in researches.

Table 4.47

Details of the research at the School of Education, Devi Ahilya Vishwavidyalaya, during 1964-2014 with respect to Style of Referencing followed

Year	Level	Reference Style				Total
		APA	MLA	Mixed (APA/MLA)	No Specific Style	
1964-1974	Ph.D.	0	0	0	1	1
	M.Phil.	0	0	0	0	0
	Project	0	0	0	0	0
1975-1984	Ph.D.	0	0	8	5	13
	M.Phil.	0	0	0	0	0
	Project	0	1	5	3	9
1985-1994	Ph.D.	4	6	20	12	42
	M.Phil.	0	4	35	46	85
	Project	0	1	1	4	6
1995-2004	Ph.D.	10	2	20	9	41
	M.Phil.	1	0	0	0	1
	Project	1	0	0	0	1
2005-2014	Ph.D.	28	0	13	11	52
	M.Phil.	24	0	14	0	38
	Project	1	0	0	0	1
Overall	Ph.D.	42	8	61	38	149
	Ph.D. (%)	28.19	5.37	40.94	25.50	100.00
	M.Phil.	25	4	49	46	124
	M.Phil. (%)	20.16	3.23	39.52	37.10	100.00
	Project	2	2	6	7	17
	Project (%)	11.76	11.76	35.29	41.18	100.00
	Total	69	14	116	91	290
	Total (%)	23.79	4.83	40.00	31.38	100.00

Graph 4.61*Trend of research with respect to Style of Referencing followed***Graph 4.62***Style of Referencing during the years followed***Graph 4.63***Level of Research with respect to Style of Referencing followed*

From Table 4.47, Graph 4.61, Graph 4.62 and Graph 4.63, it is evident that—

Out of 149 Ph.D. researches, Mixed (APA & MLA) style was used in 61 (40.94 percent) researches, APA style was used in 42 (28.19 percent) researches, No Specific style was used in 38 (25.5 percent) researches and MLA style was used in 8 (5.37 percent) researches.

Out of 124 M.Phil. researches, Mixed (APA & MLA) style was used in 49 (39.52 percent) researches, No Specific style was found in 46 (37.1 percent), APA style was used in 25 (20.16 percent) researches and MLA style was used 4 (3.23 percent) researches.

Out of 17 Project Researches, Mixed style was used in 7(41.18 percent) researches, No Specific style was found in 6 (35.29 percent) researches, APA style and MLA style were used in 2 (11.76 percent) researches each.

Out of total 290 (Ph.D., M.Phil. and Project) researches, Mixed (APA and MLA) style was used in 116 (40 percent) researches, No Specific style was used in 91 (31.38 percent) researches, APA style was used in 69 (23.79 percent) researches and MLA style was used in 14 (4.83 percent) researches.

During 1964-2014, from the trend of researches at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, it was found that—

- During 1964-2004 there was a Mixed (APA and MLA) style of referencing dominating the style of referencing in researches.
- Use of APA style of referencing gradually increased from 1964-2014 in researches.
- During the last decade i.e. 2005-2014 APA style of referencing got popularized among researchers.
- 91 (31.38 percent) researches had followed ‘No specific’ standard style of referencing rather in them department’s traditional referencing style was followed, which does not have any uniform format of referencing.

Overall, considering the referencing style as an important aspect in reporting the research, a need was felt to make the researchers aware of the proper referencing style of international acceptance

Overall, from the aforesaid, the standard referencing styles viz. Only APA style was used. MLA, Turabian referencing styles were meagerly used in the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014.

4.5.10.2 ANALYSIS OF RESEARCH WITH RESPECT TO FOOTNOTES/ENDNOTES WRITING

For this, an item ‘Footnotes/Endnotes are written in the thesis?’ with the options of Yes/No, was placed in the Educational Research Information and Review Schedule (Appendix—B). Table 4.48, Graph 4.64, Graph 4.65 and Graph 4.66 depicts the situation regarding the kind of research in researches.

From Table 4.48, Graph 4.64, Graph 4.65 and Graph 4.66, it was evident that—

Out of 149 Ph.D. researches, in 32 (21.48 percent) researches Foot/Endnotes were written but in 117 (78.52 percent) researches Foot/Endnotes were not written.

Out of 124 M.Phil. researches in 23 (18.55 percent) researches Foot/Endnotes were written but in 101 (81.45 percent) researches Foot/Endnotes were not written.

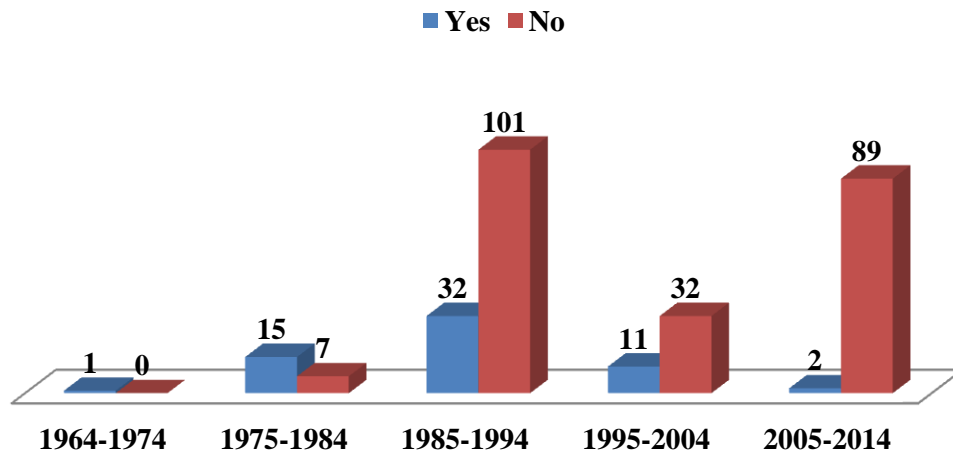
Table 4.48

Details of the research at the School of Education, Devi Ahilya Vishwavidyalaya, during 1964-2014 with respect to Footnotes/ Endnotes Written

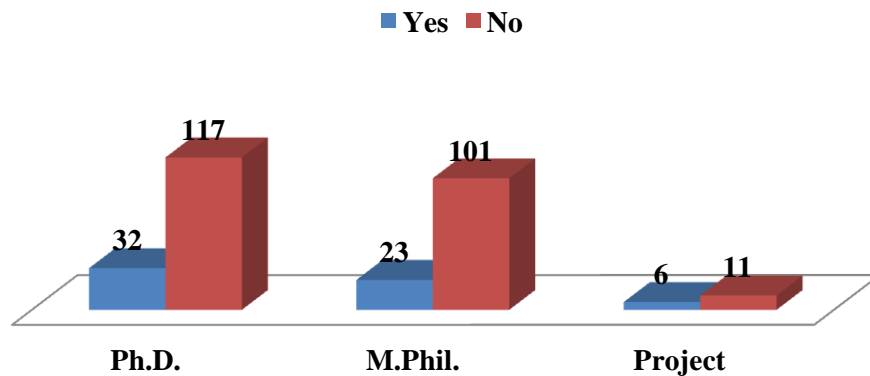
Year	Level	Footnotes /End Notes		Total
		Yes	No	
1964-1974	Ph.D.	1	0	1
	M.Phil.	0	0	0
	Project	0	0	0
1975-1984	Ph.D.	9	4	13
	M.Phil.	0	0	0
	Project	6	3	9
1985-1994	Ph.D.	11	31	42
	M.Phil.	21	64	85
	Project	0	6	6
1995-2004	Ph.D.	11	30	41
	M.Phil.	0	1	1
	Project	0	1	1
2005-2014	Ph.D.	0	52	52
	M.Phil.	2	36	38
	Project	0	1	1
Overall	Ph.D.	32	117	149
	Ph.D. (%)	21.48	78.52	100.00
	M.Phil.	23	101	124
	M.Phil. (%)	18.55	81.45	100.00
	Project	6	11	17
	Project (%)	35.29	64.71	100
	Total	61	229	290
	Total (%)	21.03	78.97	100

Graph 4.64

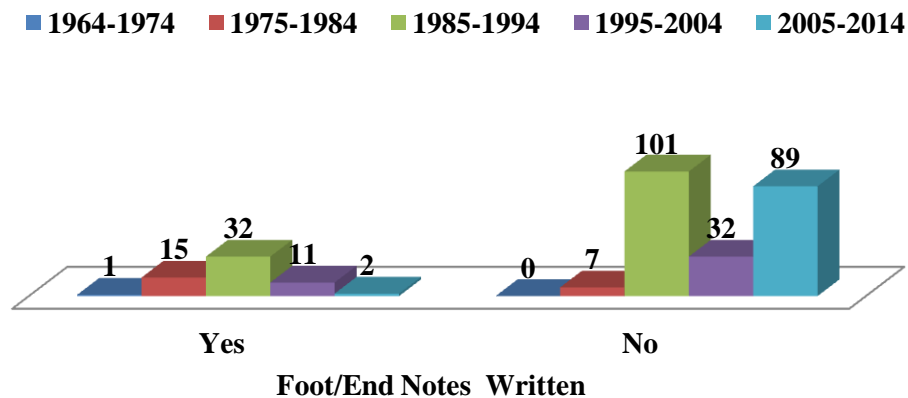
Decade-wise Trend of researches at the School of Education, Devi Ahilya Vishwavidyalaya, during 1964-2014 with respect to Foot/Endnotes Written

**Graph 4.65**

Level of research wise details of researches at the School of Education, Devi Ahilya Vishwavidyalaya, during 1964-2014 with respect to Foot/Endnotes Written

**Graph 4.66**

Trend of researches at the School of Education, Devi Ahilya Vishwavidyalaya, during 1964-2014 with respect to Foot/Endnotes Written



Out of 17 Project researches, in 6 (percent) researches Foot/Endnotes were written but in 11(64.71 percent) researches Foot/Endnotes were not written.

Out of total 290 (Ph.D., M.Phil. and Project) researches, in 61 (21.03 percent) researches Foot/Endnotes were written but in 229 (78.97 percent) researches Foot/Endnotes were not written.

During 1964-2014, from the trend of researches with respect to the writing of Foot/Endnotes in the researches at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, it is evident that

- In two decades 1964-1974 and 1975-1984 the habit of writing Foot/Endnotes was there but after that, it was found diminishing.
- There was a steady decline in writing Foot/Endnotes among the researchers.
- The healthy practice of Writing Foot/Endnotes was missing

Overall, from the aforesaid, it can be concluded that, the skill of writing the foot/Endnotes as referencing styles were missing, in the researches at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014.

4.4.10.3 ANALYSIS OF RESEARCH WITH RESPECT TO LEGIBLE AND PROPERLY MADE TABLES

For this, an item ‘Whether tables are legible and properly made?’ with the options of Yes/No along with the reason of specification, was placed in the *Educational Research Information and Review Tool (Appendix—B)*.

The Legibility and properly made tables mean as per the tables made as per the specifications of the referencing style. As per the previous section discussion, it is clear that there was no uniform referencing style among the researchers at the School of Education, Devi Ahilya Vishwavidyalaya, during 1964-2014. But still specifications as per APA and MLA referencing styles for table preparation were taken as the yardstick to review this component. The following Table 4.49, Graph 4.67 and Graph 4.68 depicts the situation regarding the kind of research in researches.

Out of 149 Ph.D. researches, in 49 (32.79 percent) researches tables were properly made, in 89 (59.73 percent) researches tables were lacking legibility. No tables were found in 11 (7.38 percent) researches as these studies were descriptive and Philosophical.

Out of 124 M.Phil. researches, in 46 (37.1 percent) researches tables were properly made, in 64 (51.61 percent) researches tables were lacking legibility. No-

tables were found in 14 (11.29 percent) researches as these studies were Descriptive and Philosophical.

Out of 17 Project Researches, in 3 (17.65 percent) researches tables were properly made, in 12 (70.59 percent) researches tables were lacking legibility. In 2 (11.76 percent) researches tables were not made as these studies were descriptive and Philosophical.

Out of total 290 (Ph.D., M.Phil. and Project) researches, in 98 (33.79 percent) researches tables were properly made, in 165 (56.90 percent) researches tables were lacking legibility. No tables were found in 27 (9.31 percent) researches as these studies were descriptive and Philosophical.

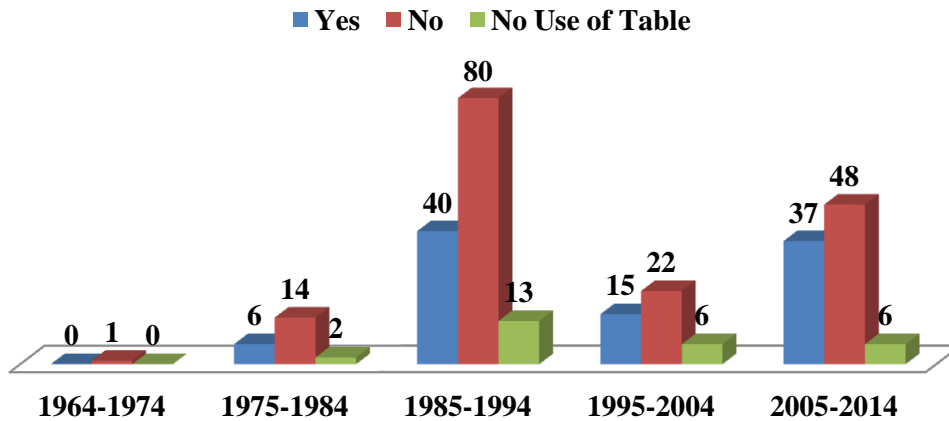
Table 4.49

Details of the research at the School of Education, Devi Ahilya Vishwavidyalaya, during 1964-2014 with respect to Legibility and Properly made Tables

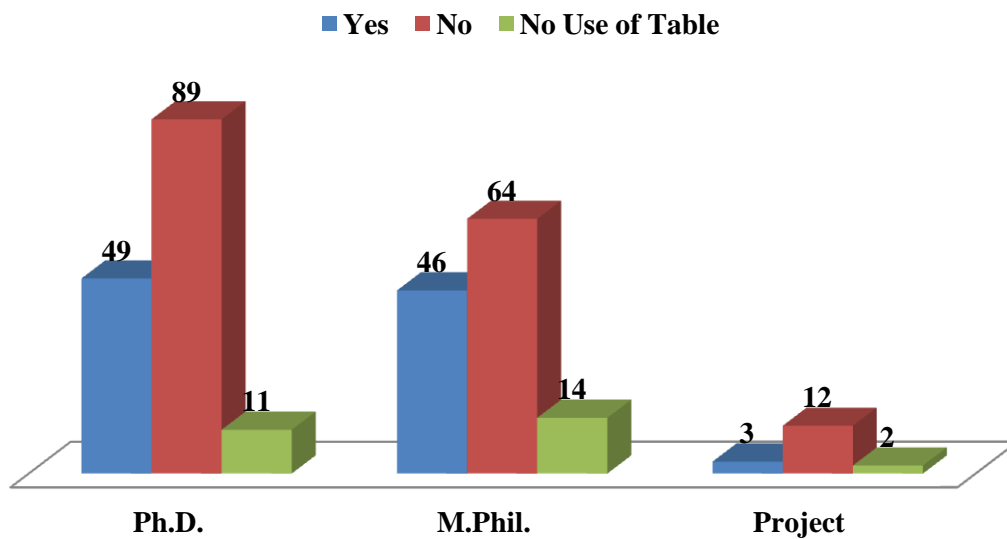
Year	Level	Tables Properly Made			Total
		Yes	No	No Use of Table	
1964-1974	Ph.D.	0	1	0	1
	M.Phil.	0	0	0	0
	Project	0	0	0	0
1975-1984	Ph.D.	3	8	2	13
	M.Phil.	0	0	0	0
	Project	3	6	0	9
1985-1994	Ph.D.	9	32	1	42
	M.Phil.	31	44	10	85
	Project	0	4	2	6
1995-2004	Ph.D.	15	20	6	41
	M.Phil.	0	1	0	1
	Project	0	1	0	1
2005-2014	Ph.D.	22	28	2	52
	M.Phil.	15	19	4	38
	Project	0	1	0	1
Overall	Ph.D.	49	89	11	149
	Ph.D. (%)	32.89	59.73	7.38	100.00
	M.Phil.	46	64	14	124
	M.Phil. (%)	37.10	51.61	11.29	100.00
	Project	3	12	2	17
	Project (%)	17.65	70.59	11.76	100.00
	Total	98	165	27	290
	Total (%)	33.79	56.90	9.31	100.00

Graph 4.67

Decade wise Trend of the research at the School of Education, Devi Ahilya Vishwavidyalaya, during 1964-2014 with respect to Legibility and properly made Tables

**Graph 4.68**

Level of the research-wise details at the School of Education, Devi Ahilya Vishwavidyalaya, during 1964-2014 with respect to Legibility and properly made Tables



During 1964-2014, from the trend of researches with respect to 'Legibility and Properly made tables', in the researches at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, it is evident that

- It was found that the skill of drawing legible and proper tables in the research was not up to a satisfactory level. It can be concluded that the skill of drawing legible and proper tables was needed more attention in the researches.

- It was also found that the Table presentation in the researches at the School of Education, Devi Ahilya Vishwavidyalaya, Indore did not follow any specific standard style of referencing.
- Looking into the table making scenario in the research at the School of Education, Devi Ahilya Vishwavidyalaya, during 1964-2014 variety of the errors like
 - The errors like Faulty Titles/Headings; No center alignment; Table number not allocated; Font size & style used in the table headings differ from the thesis's font size & style; tables directly copied from the SPSS output file without any modification; Headings in some of the tables were not in bold letters; Border was not in format; Tables were not in format; Rows in some tables were not in format; Incomplete boundaries were found; In some tables serial numbers were not mentioned; Heading was not given to tables; and Table mentioned in Index but not given in the later main section, were mostly occurring in the researches.
 - While the errors viz. table contents written by pen; Whole table was in bold letters; headings missing; Column alignments was found improper; Table number was not given; too small Font size; Table was found slant; Mismatch information; and too large Font size of matter in tables, were found in less number of the researches.

Overall, it can be concluded that the skill of drawing legible Tables and properly reporting them in the research was exclusively missing in the researches at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014.

4.5.10.4 ANALYSIS OF RESEARCH WITH RESPECT TO LEGIBILITY AND PROPERLY MADE GRAPHS

For this, an item 'Whether graphs are legible and properly made?' with the options of Yes/No along with the reason for the choice, was placed in the *Educational Research Information and Review Tool* (Appendix—B). Table 4.50, Graph 4.69 and Graph 4.70 depicts the situation regarding the kind of research in researches.

Out of 149 Ph.D. researches, in 43 (28.86 percent) researches Graphs were properly made, in 72 (48.32 percent) researches graphs were lacking legibility. No Graphs were found in 34 (22.82 percent) researches.

Out of 124 M.Phil. researches, in 44 (35.48 percent) researches Graphs were properly made, in 56 (45.16 percent) researches graphs were lacking legibility. No Graphs were found in 24 (19.35 percent) researches.

Out of 17 Project Researches, in 2 (11.76 percent) researches Graphs were properly made, in 8 (47.06 percent) researches graphs were lacking legibility. In 7 (11.76 percent) researches Graphs were not made.

Table 4.50

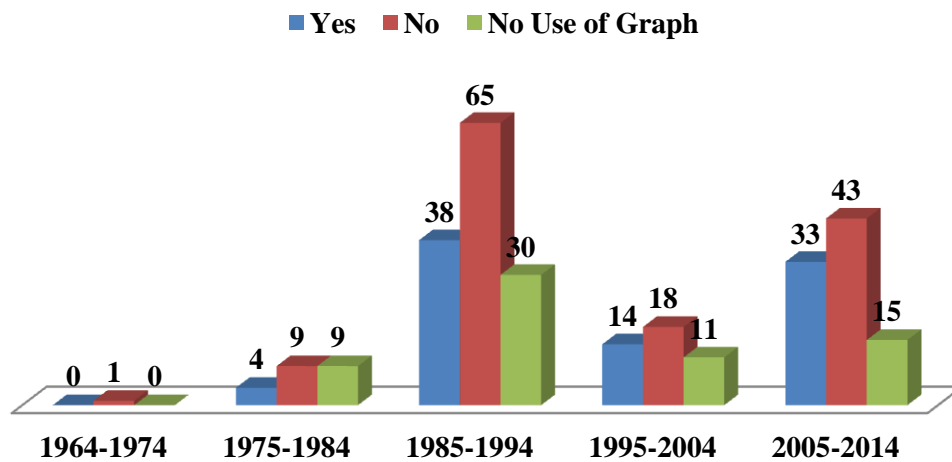
Details of the research at the School of Education, Devi Ahilya Vishwavidyalaya, during 1964-2014 with respect to the legibility and properly making of Graphs

Year	Level	Legibility and Properly made Graphs			Total
		Yes	No	No Use of Graphs	
1964-1974	Ph.D.	0	1	0	1
	M.Phil.	0	0	0	0
	Project	0	0	0	0
1975-1984	Ph.D.	2	7	4	13
	M.Phil.	0	0	0	0
	Project	2	2	5	9
1985-1994	Ph.D.	7	22	13	42
	M.Phil.	31	39	15	85
	Project	0	4	2	6
1995-2004	Ph.D.	14	16	11	41
	M.Phil.	0	1	0	1
	Project	0	1	0	1
2005-2014	Ph.D.	20	26	6	52
	M.Phil.	13	16	9	38
	Project	0	1	0	1
Overall	Ph.D.	43	72	34	149
	Ph.D. (%)	28.86	48.32	22.82	100.00
	M.Phil.	44	56	24	124
	M.Phil. (%)	35.48	45.16	19.35	100.00
	Project	2	8	7	17
	Project (%)	11.76	47.06	41.18	100.00
	Total	89	136	65	290
	Total %	30.69	46.90	22.41	100.00

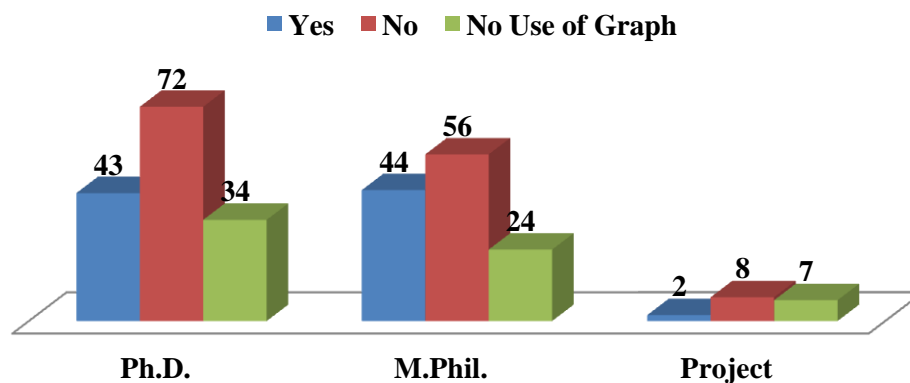
Out of total 290 (Ph.D., M.Phil. and Project) researches, in 89 (30.69 percent) researches Graphs were properly made, in 136 (46.9 percent) researches graphs were lacking legibility. No Graphs were found in 65 (22.41 percent) researches.

Graph 4.69

Trend of the research at the School of Education, Devi Ahilya Vishwavidyalaya, during 1964-2014 with respect to Legibility and properly made Graphs

**Graph 4.70**

Level of research-wise trend of the researches with respect to Legibility and Properly made Graphs



During 1964-2014, from the trend of researches with respect to the ‘Legibility and Properly made Graphs’ in the researches at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, it is evident that—

- As out of total 290 researches, in 89 (30.69 percent) researches graphs were properly made, in 136 (46.9 percent) researches graphs were lacking legibility. No Graphs were found in 65 (22.41 percent) researches.
- It was found that the skill of drawing legible and proper graphs in the research was not up to a satisfactory level. It can be concluded that the skill of drawing legible and proper graphs was needed more attention in the researches.

- It was also found that the graph presentation in the researches at the School of Education, Devi Ahilya Vishwavidyalaya, Indore did not follow any specific standard style of referencing.
- Looking into the table making scenario in the research at the School of Education, Devi Ahilya Vishwavidyalaya, during 1964-2014 variety of the errors like —
 - The errors like Faulty Headings/titles; Graphs directly copied from the SPSS output file directly either without any modification; lack of writing scale/symbol; Hand-written texts in the computerized graphs; Information of abscissa and mantissa was not given; Bar graphs are not in format; Scaling was not done, Legend was missing, Incomplete information; Value on bar graphs were not given; data labels were missing; Linear graphs were found improper; Corrections were done and were not clear in graphs; Photocopy of graph was used; Headings to the graphs were not given; too small Font size in graphs; & Graphs were drawn by hands, were found commonly in the researches.
 - Along with these, errors like Alignment issues; Font type/Font Size errors; no center alignment; graph number not properly allocated; Photocopy of graph was used; Headings to the graphs were not given; Merged tables without any purpose; font size/style used in the graph headings differ from the thesis's font size/ style; were some of the most frequent errors located in the researches.

Looking at the synoptic view of the component of Referencing in the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014 a gloomy situation emerges out. Overall, from the aforesaid,

- ❑ The standard referencing styles viz. APA, MLA, Turabian referencing styles were completely neglected.
- ❑ Also at the same time, it can also be concluded that the institution was failed to make a standard format of referencing style for the researches.
- ❑ The skill of writing the footnotes as referencing styles were missing.
- ❑ The art of writing of other techniques like In-text citation, Bibliography, Annotated Bibliography and Webliography in the researches was strongly felt.
- ❑ The skill of writing the referencing styles properly and as per the standards of the referencing style was exhaustively missing.
- ❑ The scenario of Legible and properly making of Tables and Graphs as per some standardized referencing style was not satisfactory in the researches at

the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014.

- The skill of drawing legible Tables and Graphs, properly, was a component that needs fair attention in the researches at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014.
- A need was felt, to have a proper orientation for the researchers to make tables and Graphs more Legible and proper.

4.5.11 ANALYSIS REGARDING THE FINAL PRODUCT OF THE RESEARCH

For analyzing the component of Final Product of the Research in the Research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014, and one open-ended item viz. '*Output of the research*' was placed up in the *Educational Research Information and Review Tool (Appendix—B)*. The response in the item was personally filled by the researcher after careful investigation and observing each reviewed Research done at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014.

'What is the final output of the research?' was the question item to which, after getting filled with the responses the data was analyzed using the data categorization method.

4.5.11.1 ANALYSIS WITH RESPECT TO THE OUTPUT OF RESEARCH BASED ON THE BROAD CATEGORIZATION

Responding to the question of 'What is the final output of the research?' the responses of the like products were placed in the Sixteen (16) different categories mentioned in Table 4.51—

The detailed situation emerging out regarding Final Product of the Research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014, is presented in the Table 4.52, Table 4.53, Table 4.54, Table 4.55, Graph 4.71, Graph 4.72, Graph 4.73 and Graph 4.74

From Table 4.52, Table 4.53, Table 4.54, Table 4.55, Graph 4.71, Graph 4.72, Graph 4.73 and Graph 4.74, it is evident that—

Out of 149 Ph.D. researches, 'Development of Models/Methods/Strategy for Teaching' as output was found in 40 (26.85 percent) Researches, 'Survey Report

Related to Particular Constraint’ as output was found in 21 (14.09 percent) researches, ‘Psychometrics/Correlates of Education’ as output was found in 14 (9.4 percent) researches, ‘Development of Module (PLM/BPLM etc.)/Software Development’ as output was found in 14 (9.4 percent) researches, ‘Subject specific Teaching Learning Material developed/ Instructional material developed’ as output was found in 14 (9.4 percent) researches, ‘CAI/WBI Teaching Material Developed/ E.T.V. program/ Video material’ as output was found in 12 (8.05 percent) researches, ‘Philosophical Thoughts’ as output was found in 10 (6.71 percent) researches, ‘Evaluation Report of a Program/Event/Book’ as output was found in 6 (4.03 percent) researches, ‘Curriculum Development in Particular Subject’ as output was found in 5 (3.36 percent) researches, ‘Diagnostic test and Remedial material developed’ as output was found in 5 (3.36 percent) researches, ‘Feedback/Assessment Mechanism’ as output was found in 4 (2.68 percent) researches, ‘Predicting Human Values’ as output was found in 2 (1.34 percent) researches, ‘Case study’ as output was found in 1(0.67 percent) researches, ‘Creation of Database’ as output was found in 1 (0.67 percent) researches.

Table 4.51

Categories of Nature of Output of the researchers at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014

SN.	Nature of the Final Output of research
1	Survey report related to some Constraint/theme
2	Models/Methods/Strategy for Teaching
3	Video/CAI/WBI/ E.T.V. program Developed
4	Case study related
5	Philosophical thoughts
6	Curriculum Development on particular Subject
7	Evaluation Report of a Program/Event/Book
8	Psychometrics/Correlates of Education related Output
9	Development of Module (PLM/BPLM etc.)/Software
10	Development of Subject-specific Teaching Learning Material/ Instructional material
11	Predicting Human Values
12	Standardized Tool/Scale
13	Diagnostic test and Remedial strategies
14	Creation of Database
15	Feedback Mechanism
16	Proposal Making

Table 4.52

Details of the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014 with respect to Final Product of the research

SN	Nature of the Final Product of the Research	Level of Research						Total	
		Ph.D.		M.Phil.		Project		N	%
		N	%	N	%	N	%		
1	Survey Report Related to Particular Constraint	21	14.09	15	12.10	4	23.53	40	13.79
2	Development of Models/Methods/Strategy for Teaching	40	26.85	37	29.84	5	29.41	82	28.28
3	CAI/WBI Teaching Material Developed/ E.T.V. program/ Video material	12	8.05	5	4.03	2	11.76	19	6.55
4	Case study related Output	1	0.67	5	4.03	0	0.00	6	2.07
5	Philosophical Thoughts as Output	10	6.71	10	8.06	0	0.00	20	6.90
6	Curriculum Development in Particular Subject	5	3.36	2	1.61	0	0.00	7	2.41
7	Evaluation Report of a Program/Event/Book	6	4.03	8	6.45	0	0.00	14	4.83
8	Psychometrics/Correlates of Education related Output	14	9.40	22	17.74	0	0.00	36	12.41
9	Development of Module (PLM/BPLM etc.)/Software Development	14	9.40	4	3.23	1	5.88	19	6.55
10	Subject specific Teaching Learning Material developed/ Instructional material developed	14	9.40	4	3.23	2	11.76	20	6.90
11	Predicting Human Values	2	1.34	4	3.23	0	0.00	6	2.07
12	Standardized Tool/Scale developed	0	0.00	3	2.42	0	0.00	3	1.03
13	Diagnostic test and Remedial material developed	5	3.36	1	0.81	0	0.00	6	2.07
14	Creation of Database	1	0.67	4	3.23	2	11.76	7	2.41
15	Feedback/Assessment Mechanism	4	2.68	0	0.00	0	0.00	4	1.38
16	Proposal Making	0	0.00	0	0.00	1	5.88	1	0.34
TOTAL		149	100	124	100	17	100	290	100

Graph 4.71

Details of the research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014 with respect to Final Product of the Research

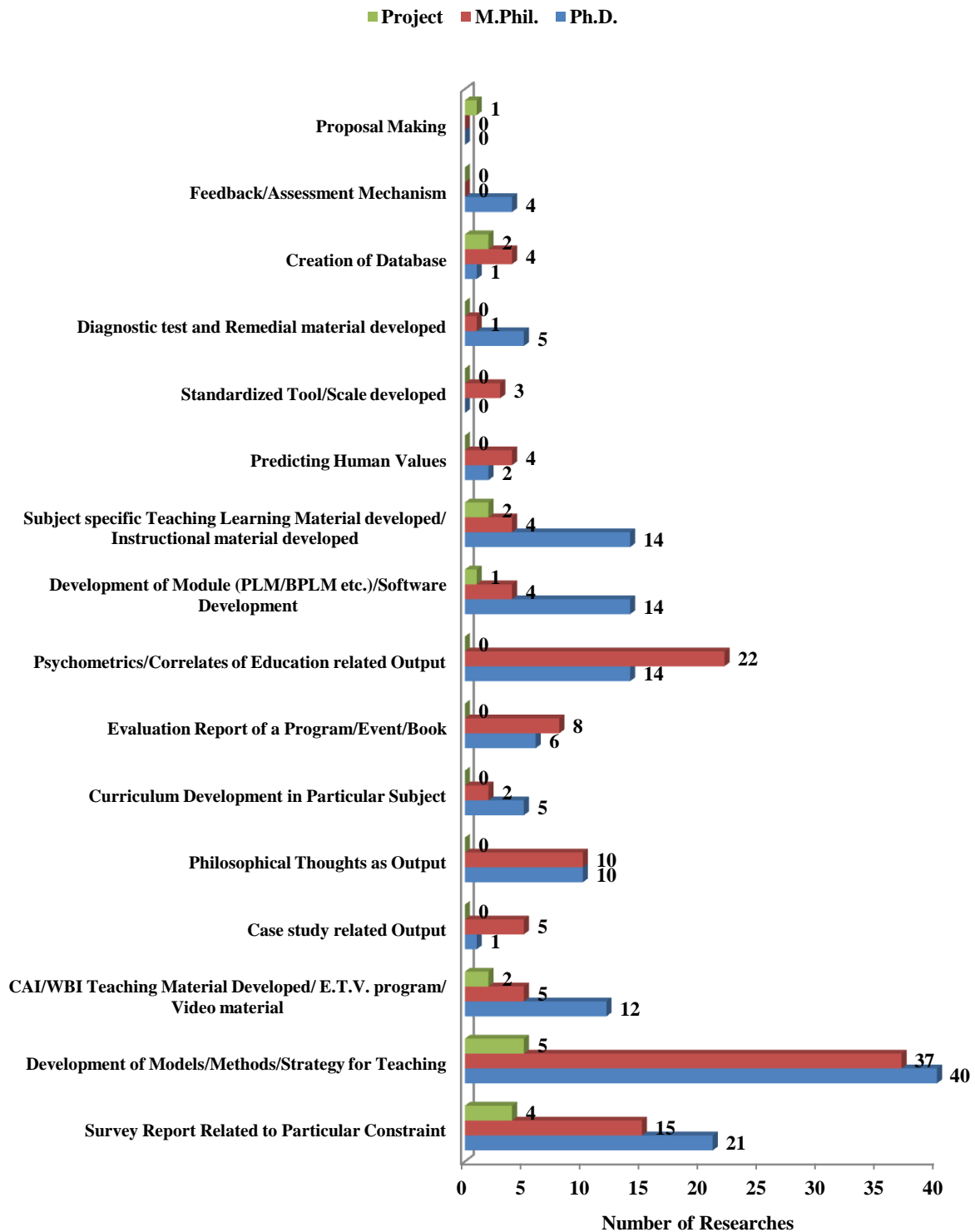


Table 4.53

Trend of Ph.D. level research with respect to Final Product of the Research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014

SN	Nature of Output	Years					Total (Ph.D.)	
		1964-1974	1975-1984	1985-1994	1995-2004	2005-2014	N	(%)
1	Survey report	1	3	3	8	6	21	14.09
2	Development of Models/Methods/Strategy for Teaching	0	0	14	11	15	40	26.85
3	Video/CAI/WBI/E.T.V. Material Developed	0	0	2	4	6	12	8.05
4	Case study related	0	0	0	1	0	1	0.67
5	Philosophical thoughts	0	0	5	2	3	10	6.71
6	Curriculum Development on particular Subject	0	1	1	3	0	5	3.36
7	Evaluation Report of a Program/Event/Book	0	1	1	3	1	6	4.03
8	Psychometrics/Correlates of Education related	0	4	2	2	6	14	9.40
9	Development of Module (PLM/BPLM etc.)/Software	0	0	5	3	6	14	9.40
10	Development of Subject specific Teaching Learning Material/ Instructional material	0	3	3	4	4	14	9.40
11	Predicting Human Values	0	1	1	0	0	2	1.34
12	Standardized Tool/Scale	0	0	0	0	0	0	0.00
13	Diagnostic test and Remedial strategies	0	0	3	0	2	5	3.36
14	Creation of Database	0	0	1	0	0	1	0.67
15	Feedback Mechanism	0	0	1	0	3	4	2.68
16	Proposal Making	0	0	0	0	0	0	0.00
Total		1	13	42	41	52	149	100.00

Graph 4.72

Trends of Ph.D. level researches with respect to the Final Output at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014

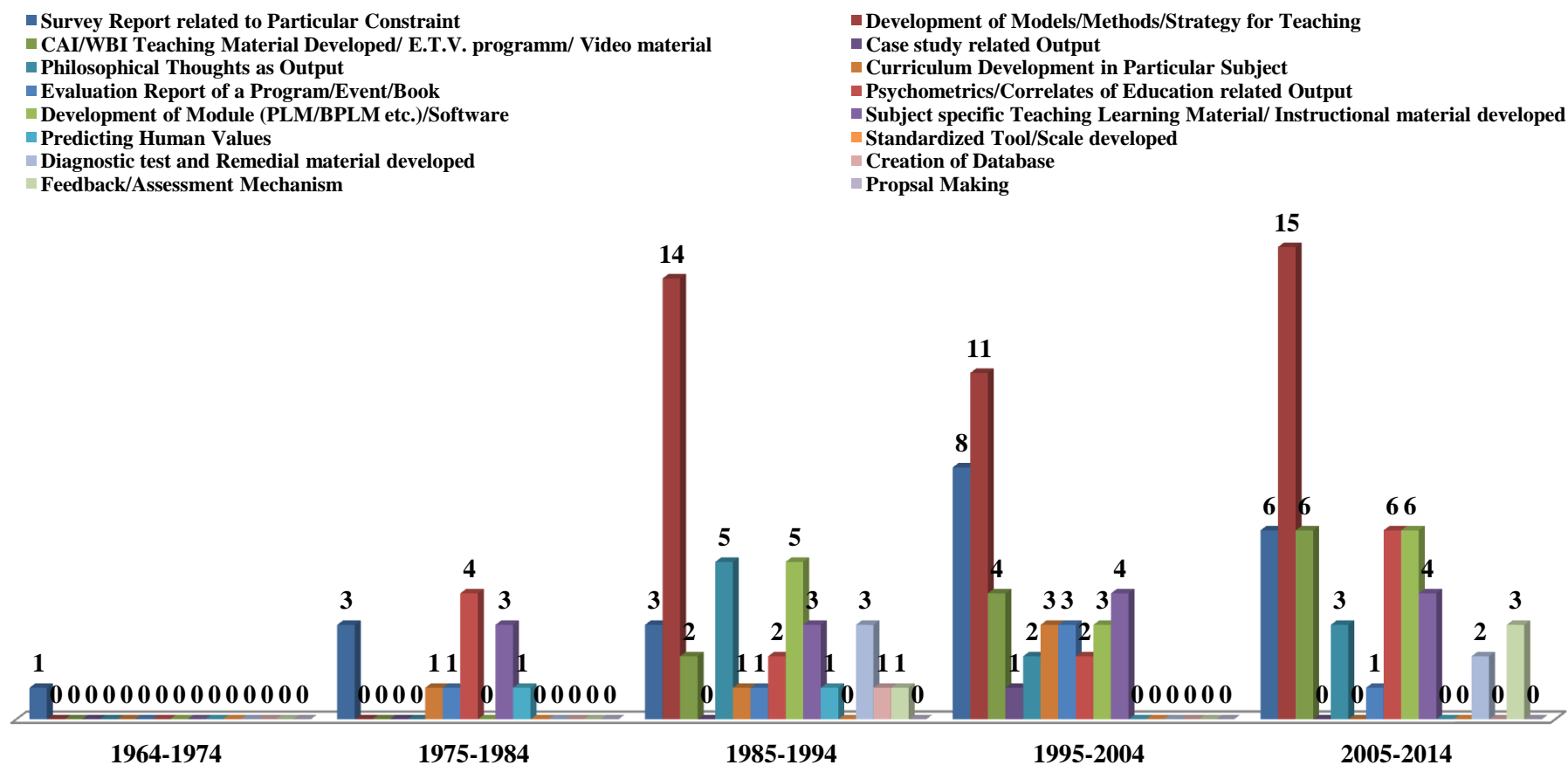


Table 4.54

Trend of M.Phil. level research with respect to Final Product of the Research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014

SN	Nature of Output	Years					Total M.Phil.	
		1964-1974	1975-1984	1985-1994	1995-2004	2005-2014	N	(%)
1	Survey report	0	0	9	0	6	15	12.10
2	Development of Models/Methods/Strategy for Teaching	0	0	27	0	10	37	29.84
3	Video/CAI/WBI/E.T.V. Material Developed	0	0	3	0	2	5	4.03
4	Case study related	0	0	0	0	5	5	4.03
5	Philosophical thoughts	0	0	10	0	0	10	8.06
6	Curriculum Development on particular Subject	0	0	2	0	0	2	1.61
7	Evaluation Report of a Program/Event/Book	0	0	5	0	3	8	6.45
8	Psychometrics/Correlates of Education related	0	0	16	1	5	22	17.74
9	Development of Module (PLM/BPLM etc.)/Software	0	0	1	0	3	4	3.23
10	Development of Subject specific Teaching Learning Material/ Instructional material	0	0	3	0	1	4	3.23
11	Predicting Human Values	0	0	3	0	1	4	3.23
12	Standardized Tool/Scale	0	0	2	0	1	3	2.42
13	Diagnostic test and Remedial strategies	0	0	0	0	1	1	0.81
14	Creation of Database	0	0	4	0	0	4	3.23
15	Feedback Mechanism	0	0	0	0	0	0	0.00
16	Proposal Making	0	0	0	0	0	0	0.00
Total		0	0	85	1	38	124	100.00

Graph 4.73

Trend of M.Phil. level researches with respect to the Final Output at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014

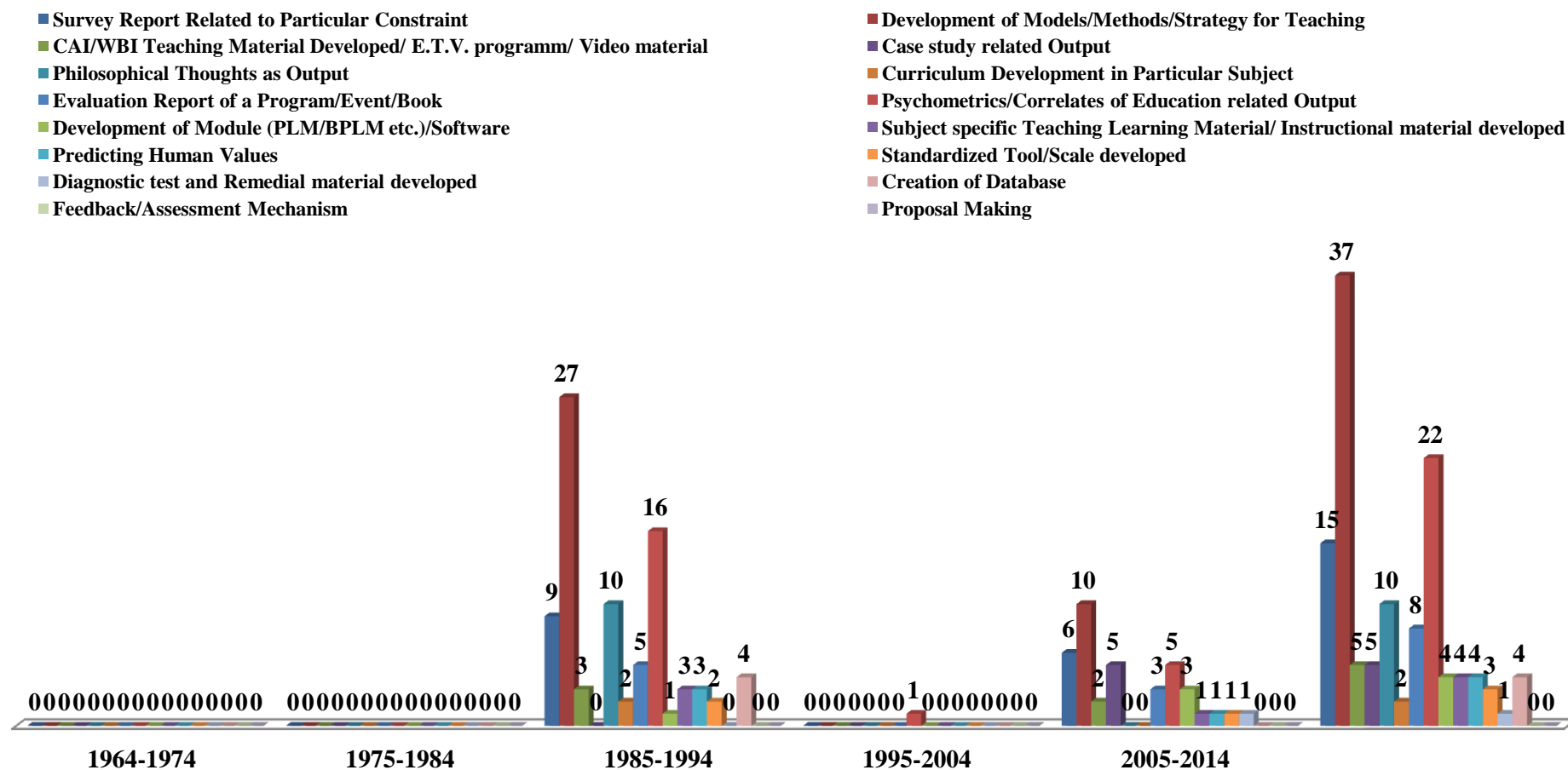


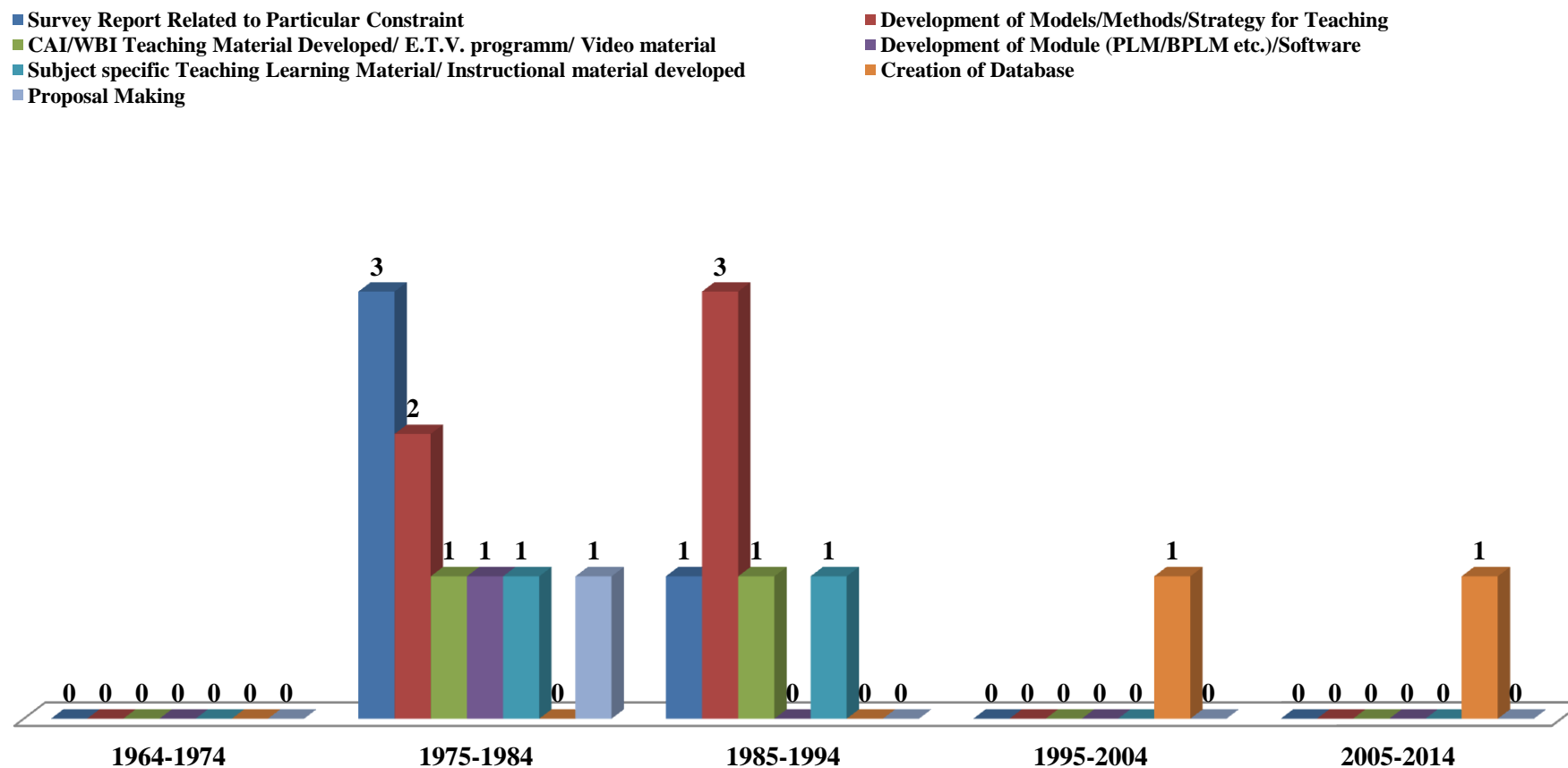
Table 4.55

Trend of Project level researches with respect to Final Product of the Research at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014

SN	Nature of Output	Years					Total (Project)	
		1964-1974	1975-1984	1985-1994	1995-2004	2005-2014	N	(%)
1	Survey report	0	3	1	0	0	4	23.53
2	Development of Models/Methods/Strategy for Teaching	0	2	3	0	0	5	29.41
3	Video/CAI/WBI Material Developed/ E.T.V. program	0	1	1	0	0	2	11.76
4	Case study related	0	0	0	0	0	0	0.00
5	Philosophical thoughts	0	0	0	0	0	0	0.00
6	Curriculum Development on particular Subject	0	0	0	0	0	0	0.00
7	Evaluation Report of a Program/Event/Book	0	0	0	0	0	0	0.00
8	Psychometrics/Correlates of Education related Output	0	0	0	0	0	0	0.00
9	Development of Module (PLM/BPLM etc.)/Software	0	1	0	0	0	1	5.88
10	Development of Subject specific Teaching Learning Material/ Instructional material	0	1	1	0	0	2	11.76
11	Predicting Human Values	0	0	0	0	0	0	0.00
12	Standardized Tool/Scale	0	0	0	0	0	0	0.00
13	Diagnostic test and Remedial strategies	0	0	0	0	0	0	0.00
14	Creation of Database	0	0	0	1	1	2	11.76
15	Feedback Mechanism	0	0	0	0	0	0	0.00
16	Proposal Making	0	1	0	0	0	1	5.88
Total		0	9	6	1	1	17	100.00

Graph 4.74

Trends of Project level researches with respect to the Final Output at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014



Out of 124 M.Phil. researches, ‘Development of Models/Methods/Strategy for Teaching’ as output was found in 37 (29.84 percent), ‘Psychometrics/Correlates of Education related Output’ as output was found in 22 (17.74 percent), ‘Survey Report Related to Particular Constraint’ as output was found in 15 (12.1 percent), ‘Philosophical Thoughts’ as output was found in 10 (8.06 percent), ‘Evaluation Report of a Program/Event/Book’ as output was found in 8 (6.45 percent), ‘CAI/WBI Teaching Material Developed/ E.T.V. program/ Video material’ as output was found in 5 (4.03 percent) researches, ‘Case study related Output’ as output was found in 5 (4.03 percent) researches, ‘Development of Module (PLM/BPLM etc.)/Software Development’ as output was found in 4 (3.23 percent), ‘Subject specific Teaching Learning Material developed/ Instructional material developed’ as output was found in 4 (3.23 percent), ‘Predicting Human Values’ as output was found in 4 (3.23 percent), ‘Creation of Database’ as output was found in 4 (3.23 percent) researches, ‘Standardized Tool/Scale developed’ as output was found in 3 (2.42 percent), ‘Curriculum Development in Particular Subject’ as output was found in 2 (1.61 percent), and ‘Diagnostic test and Remedial material developed’ as output was found in 1 (0.81 percent). Whereas, ‘Feedback/Assessment Mechanism related’ and ‘Proposal Making related’ output was not found in any M.Phil. research.

Out of 17 Project Researches, ‘Development of Models/Methods/Strategy for Teaching’ as output was found in 5 (29.41 percent) researches, ‘Survey Report Related to Particular Constraint’ as output was found in 4 (23.53 percent) researches, ‘CAI/WBI Teaching Material Developed/ E.T.V. program/ Video material’ as output was found in 2 (11.76 percent) researches, ‘Subject-specific Teaching Learning Material developed/ Instructional material developed’ as output was found in 2 (11.76 percent) researches, ‘Creation of Database’ as output was found in 2 (11.76 percent) researches, ‘Development of Module (PLM/BPLM etc.)/ Software Development’ and ‘Proposal making’ as output was found in 1 (5.88 percent) research each. The output such as ‘Psychometrics/Correlates of Education related Output’, ‘Philosophical Thoughts as Output’, ‘Evaluation Report of a Program/Event/Book’, ‘Curriculum Development in Particular Subject’, ‘Case study related Output’, ‘Predicting Human Values’, ‘Diagnostic test and Remedial material developed’, ‘Feedback/Assessment Mechanism’ and ‘Standardized Tool/Scale developed’ were not found in any project research.

Out of total 290 (Ph.D., M.Phil. and Project) researches, ‘Development of Models/Methods/Strategy for Teaching’ as output was found in 82 (28.28 percent)

researches, 'Survey Report Related to Particular Constraint' as output was found in 40 (13.79 percent) researches, 'Psychometrics/Correlates of Education related Output' as output was found in 36 (12.41 percent) researches, 'Subject specific Teaching Learning Material developed/ Instructional material developed' as output was found in 20 (6.9 percent) researches, 'Philosophical Thoughts' as output was found in 20 (6.9 percent) researches, 'CAI/WBI Teaching Material Developed/ E.T.V. program/ Video material' as output was found in 19 (6.55 percent) researches, 'Development of Module (PLM/BPLM etc.)/Software Development' as output was found in 19 (6.55 percent) researches, 'Evaluation Report of a Program/Event/Book' as output was found in 14 (4.83 percent) researches, 'Creation of Database' as output was found in 7 (2.41 percent) researches, 'Curriculum Development in Particular Subject' as output was found in 7 (2.41 percent) researches, 'Case study' as output was found in 6 (2.07 percent) researches, 'Predicting Human Values' 6 (2.07 percent) researches, 'Diagnostic test and Remedial material developed' 6 (2.07 percent) researches, 'Feedback/Assessment Mechanism' as output was found in 4 (1.38 percent) researches, 'Standardized Tool/Scale developed' as output was found in 3 (1.03 percent) researches and 'Proposal Makings' as output was found in 1 (0.34 percent) researches.

During 1964-2014, from the trend of researches with respect to 'Final Output of the Research' in the researches at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, it is evident that—

- 'Development of Models/Methods/Strategy for Teaching' as Output of research was found to be in Maximum 82 (28.28 percent) researches at all levels of research i.e. the Development of Models/Methods/Strategy for Teaching was found to be the most explored area in which the maximum researches were conducted at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014.
- 'Survey Report Related to Particular Constraint' as Output of research was found to be in second maximum 40 (13.79 percent) researches at all levels of research i.e. Survey Report related to Particular Constraint was found to be the second most explored area in which the maximum researches were conducted at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014.
- 'Psychometrics/Correlates of Education related Output' as Output of research was found to be in third maximum 36 (12.41 percent) researches at all levels of research i.e. Psychometrics/Correlates of Education related Output was found to

be the third most explored area in which the maximum researches were conducted at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014.

- ‘Standardized Tool/Scale developed’ and ‘Proposal Making’ as Output of research was found to be in the least priority output as 3 (12.41 percent) and 1 (0.34 percent) researches respectively at all levels of research i.e. Psychometrics/Correlates of Education related Output was found to be the third most explored area in which the least researches were conducted at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014.
- The output such as ‘Psychometrics/Correlates of Education related Output’, ‘Philosophical Thoughts as Output’, ‘Evaluation Report of a Program/Event/Book’, Curriculum Development in Particular Subject’, ‘Case study related Output’, ‘Predicting Human Values’, ‘Diagnostic test and Remedial material developed’, ‘Feedback/Assessment Mechanism’ and ‘Standardized Tool/Scale developed’ were not found in any project research.
- Every third study carried out at the School of Education, Devi Ahilya Vishwavidyalaya, during 1964-2014 was on Models of teaching/Instructional Material and Methods of teaching

From the aforesaid, it can be concluded that Models of teaching/Instructional Material and Methods of teaching was found to be the area of concern in which the researchers were extensively carried out at the School of Education, Devi Ahilya Vishwavidyalaya, during 1964-2014.

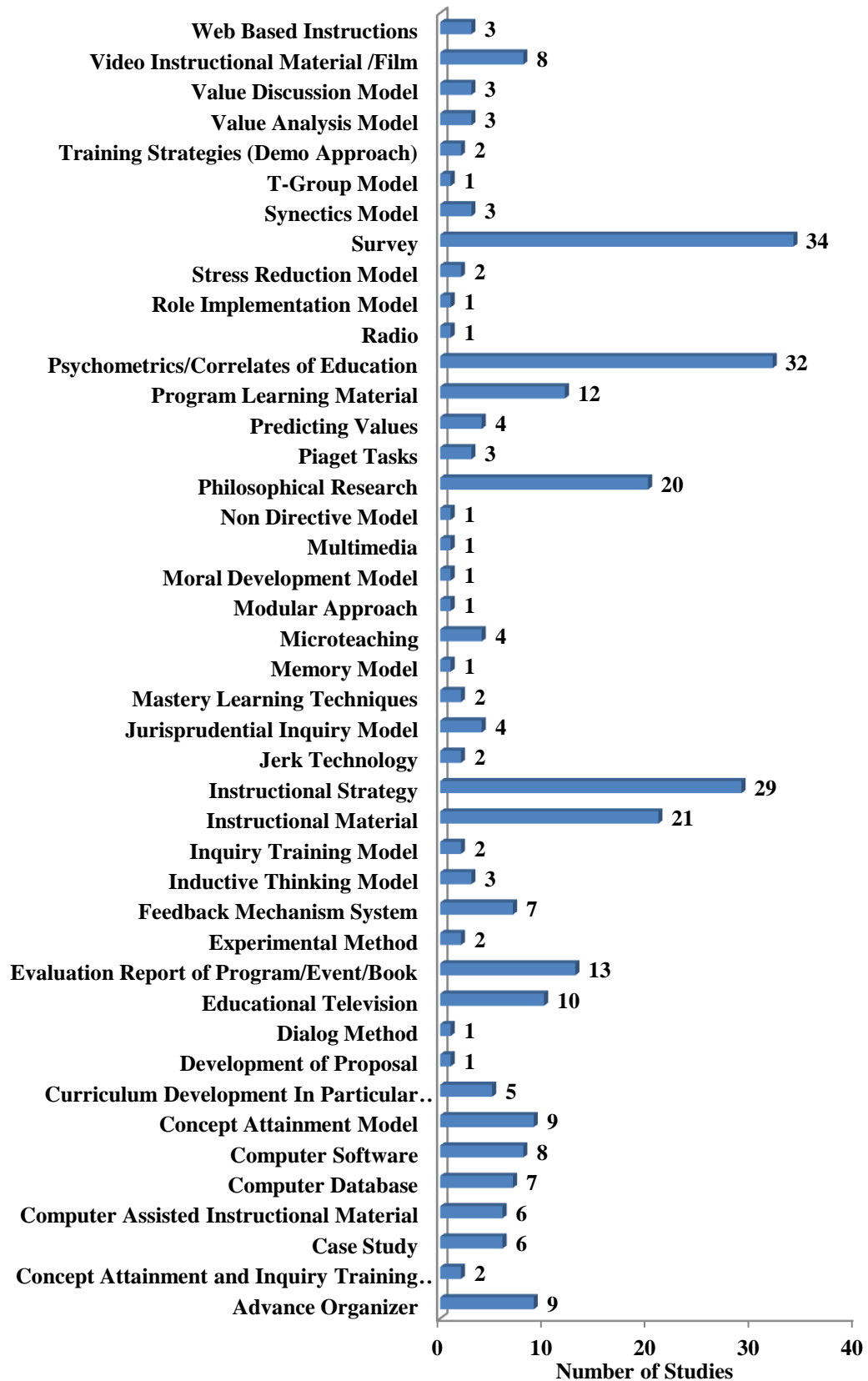
4.5.11.2 ANALYSIS WITH RESPECT TO THE OUTPUT OF RESEARCH BASED ON SYNTHESIS VARIABLES

Apart from the Output categorization into 16 categories mentioned in table 4.51, the responses of the question ‘what is the output of the research’ was detailed also mentioned in the table 4.56 based on the 43 different sub-categories entered into the database for the synthesizing the educational research findings of the researches carried out in the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014.

Table 4.56
Output of the researches

S N	Output	Ph.D.		M.Phil.		Project		Total	
		a	%	b	%	c	%	T	%
1	Advance Organizer	1	0.67	8	6.45	0	0.00	9	3.10
2	Concept Attainment and Inquiry Training Model (CAM/ITM)	0	0.00	0	0.00	2	11.76	2	0.69
3	Case Study	1	0.67	5	4.03	0	0.00	6	2.07
4	Computer Assisted Instructional Material	3	2.01	3	2.42	0	0.00	6	2.07
5	Computer Database	1	0.67	4	3.23	2	11.76	7	2.41
6	Computer Software	6	4.03	2	1.61	0	0.00	8	2.76
7	Concept Attainment Model	2	1.34	6	4.84	1	5.88	9	3.10
8	Curriculum Development	3	2.01	2	1.61	0	0.00	5	1.72
9	Development of Proposal	0	0.00	0	0.00	1	5.88	1	0.34
10	Dialog Method	0	0.00	1	0.81	0	0.00	1	0.34
11	Educational Television	5	3.36	5	4.03	0	0.00	10	3.45
12	Evaluation Report of Program/Event/Book	5	3.36	8	6.45	0	0.00	13	4.48
13	Experimental Method	2	1.34	0	0.00	0	0.00	2	0.69
14	Feedback Mechanism System	6	4.03	0	0.00	1	5.88	7	2.41
15	Inductive Thinking Model	1	0.67	2	1.61	0	0.00	3	1.03
16	Inquiry Training Model	0	0.00	2	1.61	0	0.00	2	0.69
17	Instructional Material	15	10.07	3	2.42	3	17.65	21	7.24
18	Instructional Strategy	25	16.78	3	2.42	1	5.88	29	10.0
19	Jerk Technology	2	1.34	0	0.00	0	0.00	2	0.69
20	Jurisprudential Inquiry Model	1	0.67	3	2.42	0	0.00	4	1.38
21	Mastery Learning Techniques	1	0.67	0	0.00	1	5.88	2	0.69
22	Memory Model	0	0.00	1	0.81	0	0.00	1	0.34
23	Microteaching	3	2.01	0	0.00	1	5.88	4	1.38
24	Modular Approach	1	0.67	0	0.00	0	0.00	1	0.34
25	Moral Development Model	1	0.67	0	0.00	0	0.00	1	0.34
26	Multimedia	0	0.00	1	0.81	0	0.00	1	0.34
27	Non Directive Model	0	0.00	1	0.81	0	0.00	1	0.34
28	Philosophical Research	10	6.71	10	8.06	0	0.00	20	6.90
29	Piaget Tasks	2	1.34	1	0.81	0	0.00	3	1.03
30	Predicting Values	0	0.00	4	3.23	0	0.00	4	1.38
31	Program Learning Material	9	6.04	3	2.42	0	0.00	12	4.14
32	Psychometrics/Correlates of Education	8	5.37	24	19.35	0	0.00	32	11.03
33	Radio	0	0.00	0	0.00	1	5.88	1	0.34
34	Role Implementation Model	1	0.67	0	0.00	0	0.00	1	0.34
35	Stress Reduction Model	2	1.34	0	0.00	0	0.00	2	0.69
36	Survey	18	12.08	14	11.29	2	11.76	34	11.72
37	Synectics Model	2	1.34	1	0.81	0	0.00	3	1.03
38	T-Group Model	1	0.67	0	0.00	0	0.00	1	0.34
39	Training Strategies (Demo Approach)	0	0.00	2	1.61	0	0.00	2	0.69
40	Value Analysis Model	2	1.34	1	0.81	0	0.00	3	1.03
41	Value Discussion Model	2	1.34	1	0.81	0	0.00	3	1.03
42	Video Instructional Material /Film	5	3.36	2	1.61	1	5.88	8	2.76
43	Web Based Instructions	2	1.34	1	0.81	0	0.00	3	1.03
		149	100	124	100	17	100	290	100

Graph 4.75

Output the researches

Out of 149 Ph.D. studies, As output maximum 'Instructional Strategy' was developed in 25 (16.78 percent) studies, 'Survey' was developed in 18 (12.08 percent) studies, 'Instructional Material' was developed in 15 (10.07 percent) studies, 'Philosophical Research' was developed in 10 (6.71 percent) studies, 'Program Learning Material' was developed in 9 (6.04 percent) studies, 'Psychometrics/Correlates of Education' was developed in 8 (5.37 percent) studies, 'Computer Software' was developed in 6 (4.03 percent) studies, 'Feedback Mechanism System' was developed in 6 (4.03 percent) studies, 'Educational Television', 'Evaluation Report of Program/Event/Book', 'Video Instructional Material /Film' was developed in 5 (3.36 percent) studies, 'Computer Assisted Instructional Material' was developed in 3 (2.01 percent) studies, 'Curriculum Development In Particular Subject' was developed in 3 (2.01 percent) studies, 'Microteaching' was developed in 3 (2.01 percent) studies, 'Concept Attainment Model', 'Experimental Method', 'Jerk Technology', 'Piaget Tasks', 'Stress Reduction Model', 'Synectics Model', 'Value Analysis Model', 'Value Discussion Model', 'Web Based Instructions' was experimented in 2 (1.34 percent) studies each, 'Advance Organizer', 'Case Study', 'Computer Database', 'Inductive Thinking Model', 'Jurisprudential Inquiry Model' , 'Mastery Learning Techniques' , 'Modular Approach' , 'Moral Development Model', 'Role Implementation Model' , 'T-Group Model' was developed in 1 (0.67 percent) studies each, Output related to 'both Concept Attainment and Inquiry Training Model (CAM/ITM)', 'Development of Proposal', 'Dialog Method', 'Inquiry Training Model', 'Memory Model', 'Multimedia', 'Non Directive Model', 'Predicting Values' , 'Radio programs' were not churned out at the Ph.D. level.

Out of 124 M.Phil. researches, as output, maximum 'Psychometrics/Correlates of Education' was developed in 24 (19.35 percent) studies, 'Survey' was developed in 14 (11.29 percent) studies, 'Philosophical Research' was developed in 10 (8.06 percent) studies, 'Evaluation Report of Program/Event/Book' was developed in 8 (6.45 percent) studies, 'Advance Organizer' was developed in 8 (6.45 percent) studies, 'Concept Attainment Model' was developed in 6 (4.84 percent) studies, 'Educational Television' was developed in 5 (4.03 percent) studies, 'Case Study' was developed in 5 (4.03 percent) studies, 'Computer Database' and 'Predicting Values' was developed in 4 (3.23 percent) studies, 'Instructional Strategy', 'Instructional Material', 'Program Learning Material', 'Computer Assisted Instructional Material' and 'Jurisprudential Inquiry Model' was developed in 3 (2.42 percent) studies, 'Computer Software', 'Video Instructional Material /Film', 'Curriculum Development In Particular Subject',

'Inductive Thinking Model', 'Inquiry Training Model' and 'Training Strategies (Demo Approach)' was developed in 2 (1.61 percent) studies, 'Piaget Tasks', 'Synectics Model', 'Value Analysis Model', 'Value Discussion Model', 'Web Based Instructions', 'Dialog Method', 'Memory Model', 'Multimedia' and 'Non Directive Model' was developed in 1 (0.81 percent) studies. Output related to 'Feedback Mechanism System', 'Microteaching', 'Experimental Method', 'Jerk Technology', 'Stress Reduction Model', 'Mastery Learning Techniques', 'Modular Approach', 'Moral Development Model', 'Role Implementation Model', 'T-Group Model', 'Development of Proposal' were not generated at M.Phil. level during 1964-2014.

Out of 17 Project studies, as output, maximum 'Instructional Material' was experimented in 3 (17.65 percent) studies, 'Survey' and 'Computer Database' and 'both Concept Attainment and Inquiry Training Model (CAM/ITM)' was experimented in 2 (11.76 percent) studies, 'Concept Attainment Model', 'Instructional Strategy', 'Video Instructional Material /Film', 'Feedback Mechanism System', 'Microteaching', 'Mastery Learning Techniques', 'Development of Proposal' and 'Radio' was experimented in 1 (5.88 percent) studies, No output related to 'Psychometrics/Correlates of Education', 'Philosophical Research', 'Evaluation Report of Program/Event/Book', 'Advance Organizer', 'Educational Television', 'Case Study', 'Predicting Values', 'Program Learning Material', 'Computer Assisted Instructional Material', 'Jurisprudential Inquiry Model', 'Computer Software', 'Curriculum Development In Particular Subject', 'Inductive Thinking Model', 'Inquiry Training Model', 'Training Strategies (Demo Approach)', 'Piaget Tasks', 'Synectics Model', 'Value Analysis Model', 'Value Discussion Model', 'Web Based Instructions', 'Dialog Method', 'Memory Model', 'Multimedia', 'Non Directive Model', 'Experimental Method', 'Jerk Technology', 'Stress Reduction Model', 'Modular Approach', 'Moral Development Model', 'Role Implementation Model' was explored in the Project Studies.

Out of 290 (Ph.D., M.Phil. and Project) studies, 'Survey' was experimented in 34 (11.72 percent) studies, 'Psychometrics/Correlates of Education' was experimented in 32 (11.03 percent) studies, 'Instructional Strategy' was experimented in 29 (10 percent) studies, 'Instructional Material' was experimented in 21 (7.24 percent) studies, 'Philosophical Research' was experimented in 20 (6.9 percent) studies, 'Evaluation Report of Program/Event/Book' was experimented in 13 (4.48 percent) studies, 'Program Learning Material' was experimented in 12 (4.14 percent) studies, 'Educational Television' was experimented in 10 (3.45 percent) studies, 'Concept

Attainment Model' and 'Advance Organizer Model' was experimented in 9 (3.1 percent) studies, 'Video Instructional Material /Film' and 'Computer Software' was experimented in 8 (2.76 percent) studies, 'Computer Database' and 'Feedback Mechanism System' was experimented in 7 (2.41 percent) studies, 'Case Study' and 'Computer Assisted Instructional Material' was experimented in 6 (2.07 percent) studies, 'Curriculum Development In Particular Subject' was experimented in 5 (1.72 percent) studies, 'Microteaching', 'Predicting Values' and 'Jurisprudential Inquiry Model' was experimented in 4 (1.38 percent) studies, 'Inductive Thinking Model', 'Piaget Tasks', 'Synectics Model', 'Value Analysis Model', 'Value Discussion Model' and 'Web Based Instructions' was experimented in 3 (1.03 percent) studies, 'Concept Attainment and Inquiry Training Model (CAM/ITM)', 'Mastery Learning Techniques', 'Inquiry Training Model', 'Training Strategies (Demo Approach)', 'Experimental Method', 'Jerk Technology', 'Stress Reduction Model' was experimented in 2 (0.69 percent) studies, 'Development of Proposal', 'Radio', 'Dialog Method', 'Memory Model', 'Multimedia', 'Non Directive Model', 'Modular Approach', 'Moral Development Model', 'Role Implementation Model' and 'T-Group Model' was experimented in 1 (0.34 percent) studies.

From aforesaid, for researches at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014, it is evident that—

- At the Ph.D. level, Instructional Strategies, Survey, and Instructional Materials were found to be the highest as far as the Output of the research was concerned.
- At the M.Phil. level, 'Psychometrics/Correlates of Education' 'Survey' and 'Philosophical Research' were found in most of the research output.
- At the Project level, 'Instructional Material', 'Survey', 'Computer Database' and ' both Concept Attainment and Inquiry Training Model (CAM/ITM)' were found in most of the research output.
- Overall, in total 290 (Ph.D., M.Phil. and Project) researches, 'Survey' 'Psychometrics/Correlates of Education', 'Instructional Strategy' and 'Instructional Material' were found in most of the researches as output.

These 43 types of output as mentioned in Table 4.56 were further synthesized, for broad categorization, into 14 categories based on their commonness. This commonness categorization was mentioned in the following Table 4.57 and Table 4.58.

Table 4.57

Outputs based on Synthesis Variables entered into the database of the researches at the School of Education, Devi Ahilya Vishwavidyalaya, during 1964-2014

SN	Type of Output	a	b	c	Total	Major Categorization
1	Computer Database	1	4	2	7	Software and Databases
2	Computer Software	6	2	0	8	
3	Multimedia	0	1	0	1	
4	Curriculum Development In Particular Subject	3	2	0	5	Curriculum Development
5	Development Of Proposal	0	0	1	1	Development of Proposal
6	Educational Television	5	5	0	10	ETV/ Radio Broadcasts
7	Radio related	0	0	1	1	
8	Computer Assisted Instructional Material	3	3	0	6	Instructional Material
9	Instructional Material	15	3	3	21	
10	Program Learning Material	9	3	0	12	
11	Video Instructional Material /Film	5	2	1	8	
12	Jerk Technology	2	0	0	2	
13	Instructional Strategy	25	3	1	29	Instructional Strategy
14	Mastery Learning Techniques	1	0	1	2	
15	Piaget Tasks	2	1	0	3	
16	Training Strategies Demonstration Approach	0	2	0	2	
17	Web Based Instructions	2	1	0	3	
18	Dialog Method	0	1	0	1	Methods of Teaching
19	Experimental Method	2	0	0	2	
20	Modular Approach	1	0	0	1	
21	Microteaching	3	0	1	4	Microteaching and Feedback
22	Feedback Mechanism System	6	0	1	7	
23	Advance Organizer	1	8	0	9	Models of Teaching
24	CAM and ITM both	0	0	2	2	
25	Concept Attainment Model	2	6	1	9	
26	Inductive Thinking Model	1	2	0	3	
27	Inquiry Training Model	0	2	0	2	
28	Jurisprudential Inquiry Model	1	3	0	4	
29	Memory Model	0	1	0	1	
30	Moral Development Model	1	0	0	1	
31	Non Directive Model	0	1	0	1	
32	Stress Reduction Model	2	0	0	2	
33	Synectics Model	2	1	0	3	
34	T-Group Model	1	0	0	1	
35	Value Analysis Model	2	1	0	3	
36	Value Discussion Model	2	1	0	3	
37	Role Implementation Model	1	0	0	1	
38	Case Study	1	5	0	6	Case Study
39	Philosophical Research	10	10	0	20	Philosophical Ideas/Thoughts
40	Psychometrics/Correlates of Education	8	24	0	32	Psychometrics/Correlates
41	Evaluation Report of a Program/Event/Book	5	8	0	13	Survey
42	Survey	18	14	2	34	
43	Predicting Values	0	4	0	4	Values' Prediction
		149	124	17	290	

Table 4.58

Broad Categorization of the Synthesis Variables of Outputs of the researchers at the School of Education, Devi Ahilya Vishwavidyalaya, during 1964-2014

S N	Output Categories	Level of Research						Total	
		Ph.D.		M.Phil.		Project			
		a	%	b	%	c	%	T	%
1	Case Study	1	0.67	5	4.03	0	0.00	6	2.07
2	Computer Software	7	4.70	7	5.65	2	11.76	16	5.52
3	Correlated and Psychometrics of Education	8	5.37	24	19.35	0	0.00	32	11.03
4	Curriculum Development	3	2.01	2	1.61	0	0.00	5	1.72
5	Development of Proposal	0	0.00	0	0.00	1	5.88	1	0.34
6	ETV/Radio related	5	3.36	5	4.03	1	5.88	11	3.79
7	Instructional Material	33	22.15	11	8.87	4	23.53	48	16.55
8	Instructional Strategy	31	20.81	7	5.65	2	11.76	40	13.79
9	Method of Teaching	3	2.01	1	0.81	0	0.00	4	1.38
10	Microteaching and Feedback	9	6.04	0	0.00	2	11.76	11	3.79
11	Models of Teaching	16	10.74	26	20.97	3	17.65	45	15.52
12	Philosophical Thoughts and Ideas	10	6.71	10	8.06	0	0.00	20	6.90
13	Prediction of Values	0	0.00	4	3.23	0	0.00	4	1.38
14	Survey	23	15.44	22	17.74	2	11.76	47	16.21
		149	100	124	100	17	100	290	100

Note: a—Ph.D., b—M.Phil., c—Projects

From Table 4.58, Table 4.59, Table 4.60, Table 4.61, Graph 4.76, Graph 4.77, Graph 4.78, and Graph 4.79 it is evident that—

Out of 149 Ph.D. researches, the maximum ‘Instructional Materials’ were prepared in 33 (22.15 percent) researches, ‘Instructional Strategies’ was designed in 31 (20.81 percent) researches, ‘Descriptive surveys’ report were prepared in 23 (15.44 percent) researches, ‘Models of teaching’ were experimented in 16 (10.74 percent) researches, ‘Philosophical ideas and thinking’ was churned in 10 (6.71 percent) researches, ‘Microteaching and Feedback mechanism’ was researched as output in 9 (6.04 percent) researches, ‘Psychometrics and Correlated of Education’ were explored in 8 (5.37 percent) researches, ‘Software and Database’ were designed in 7 (4.70 percent) researches, ‘ETV/Radio related Broadcast’ was explored in 5 (3.36 percent) researches, ‘Curriculum Development’ and ‘Methods of teaching’ was explored in 3 (2.01 percent) researches each and ‘Case Study’ was taken up in 1 (0.67 percent) research. ‘Value Prediction’ and ‘Proposal making’ as research output was not taken up in the Ph. D. researches.

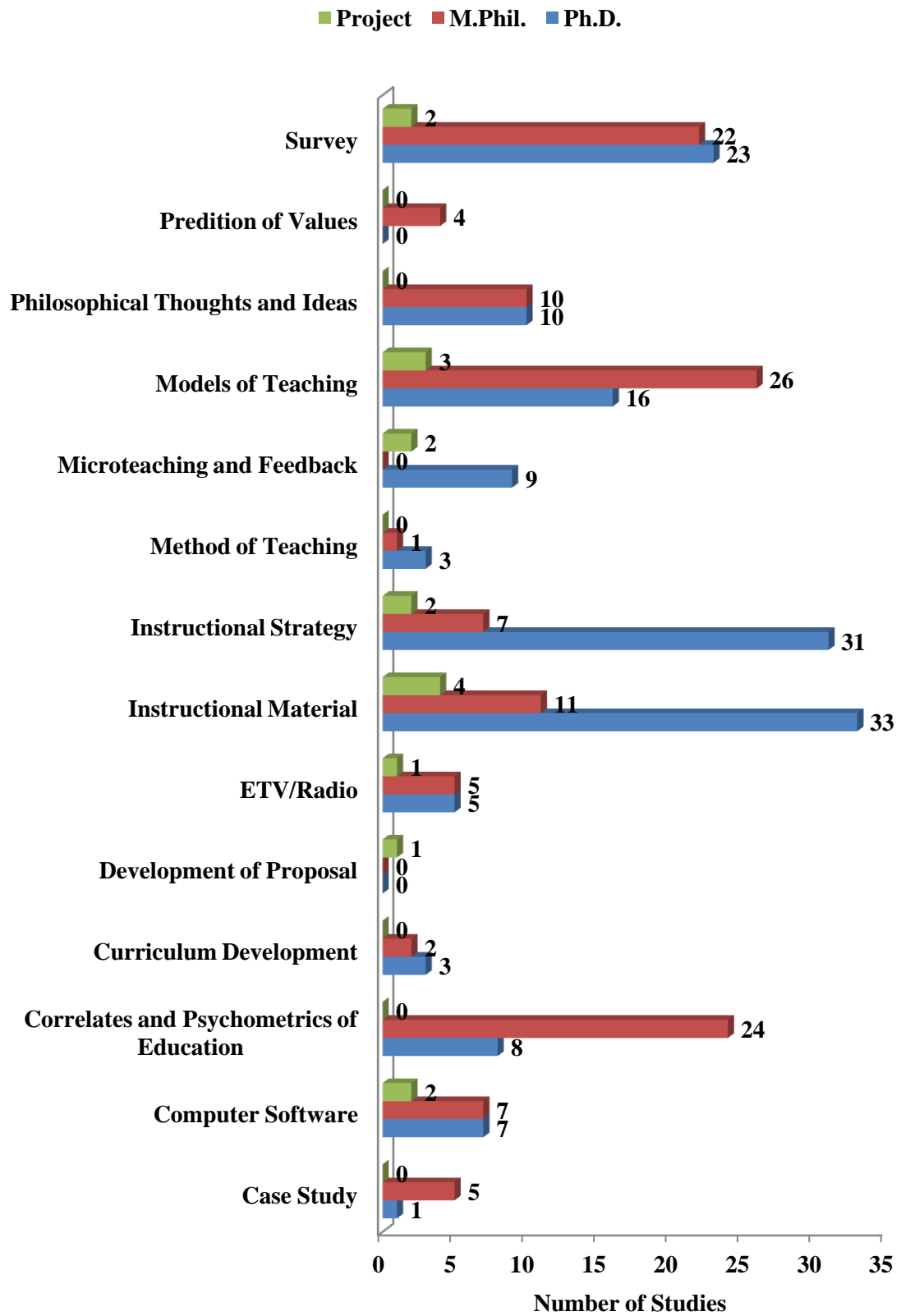
Graph 4.76*Output of the researches based on Major Categorizations*

Table 4.59

Trend of Ph.D. level research with respect to Final Product of the Research (Broad Categorization) at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014

S.N.	Output categories	Years					Total (Ph.D.)	
		1964-1974	1975-1984	1985-1994	1995-2004	2005-2014	N	%
1	Case Study	0	0	0	1	0	1	0.67
2	Computer Software	0	0	5	2	0	7	4.70
3	Correlated and Psychometrics of Education	0	3	1	1	3	8	5.37
4	Curriculum Development	0	1	0	2	0	3	2.01
5	Development of Proposal	0	0	0	0	0	0	0.00
6	ETV/Radio related	0	0	2	3	0	5	3.36
7	Instructional Material	0	5	5	7	16	33	22.15
8	Method of Teaching	0	0	0	0	3	3	2.01
9	Microteaching and Feedback	0	1	3	0	5	9	6.04
10	Models of Teaching	0	0	7	3	6	16	10.74
11	Philosophical Thoughts and Ideas	0	0	5	2	3	10	6.71
12	Prediction of Values	0	0	0	0	0	0	0.00
13	Survey	1	2	3	10	7	23	15.44
14	Instructional Strategy	0	1	11	10	9	31	20.81
Total		1	13	42	41	52	149	100.00
%		0.67	8.72	28.19	27.52	34.90	100.00	

Graph 4.77

Trend of Ph.D. level research with respect to Final Product of the Research (Broad Categorization) at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014

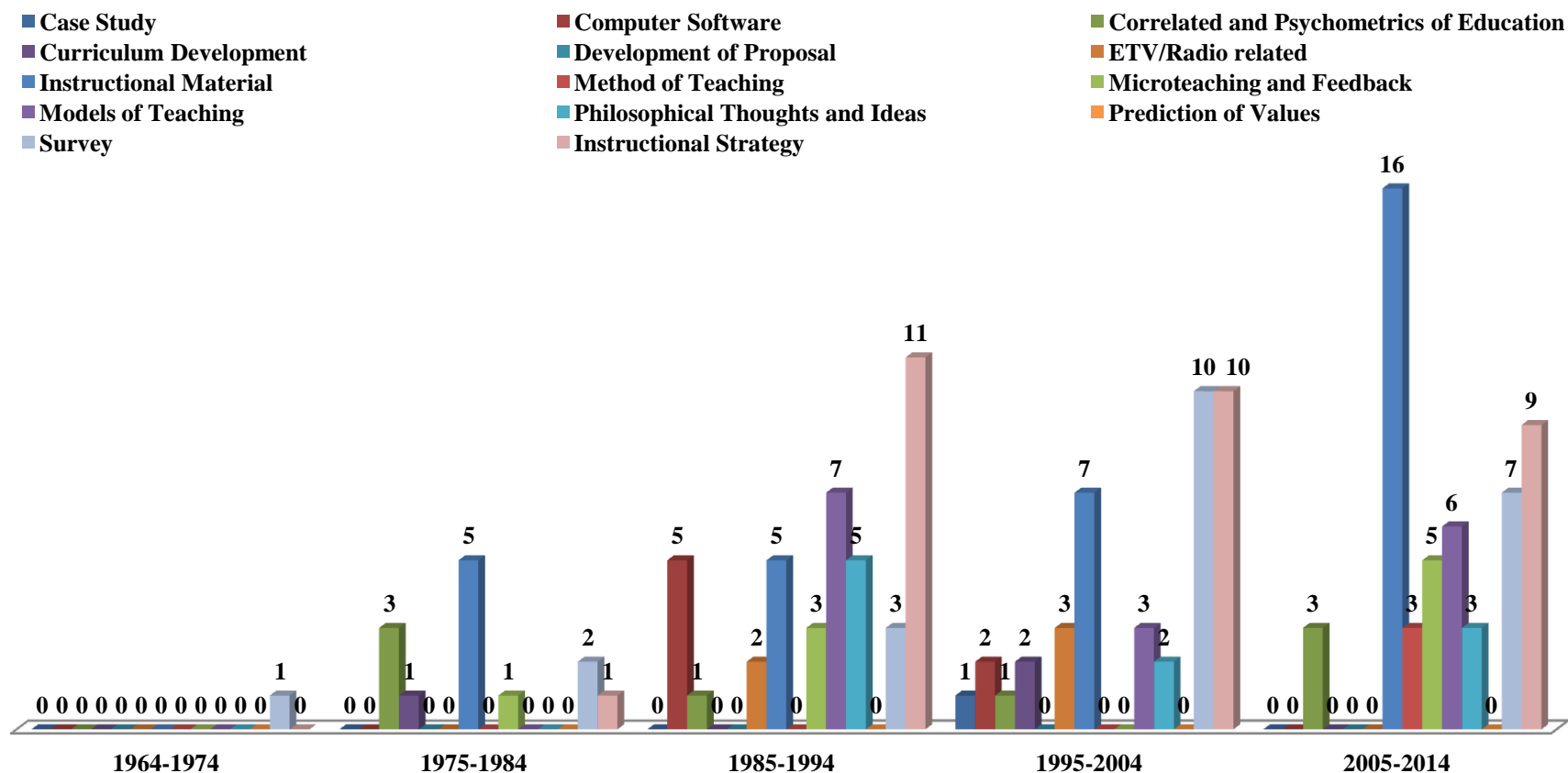


Table 4.60

Trend of M.Phil. level research with respect to Final Product of the Research (Broad Categorization) at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014

S.N.	Output categories	Years					Total (M.Phil.)	
		1964-1974	1975-1984	1985-1994	1995-2004	2005-2014	N	%
1	Case Study	0	0	0	0	5	5	4.03
2	Computer Software	0	0	5	0	2	7	5.65
3	Correlated and Psychometrics of Education	0	0	18	1	5	24	19.35
4	Curriculum Development	0	0	2	0	0	2	1.61
5	Development of Proposal	0	0	0	0	0	0	0.00
6	ETV/Radio	0	0	5	0	0	5	4.03
7	Instructional Material	0	0	6	0	5	11	8.87
8	Method of Teaching	0	0	0	0	1	1	0.81
9	Microteaching and Feedback	0	0	0	0	0	0	0.00
10	Models of Teaching	0	0	20	0	6	26	20.97
11	Philosophical Thoughts and Ideas	0	0	10	0	0	10	8.06
12	Prediction of Values	0	0	3	0	1	4	3.23
13	Survey	0	0	13	0	9	22	17.74
14	Instructional Strategy	0	0	3	0	4	7	5.65
Total		0	0	85	1	38	124	100.00
%		0.00	0.00	68.55	0.81	30.65	100.00	

Graph 4.78

Trend of M.Phil. level research with respect to Final Product of the Research (Broad Categorization) at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014

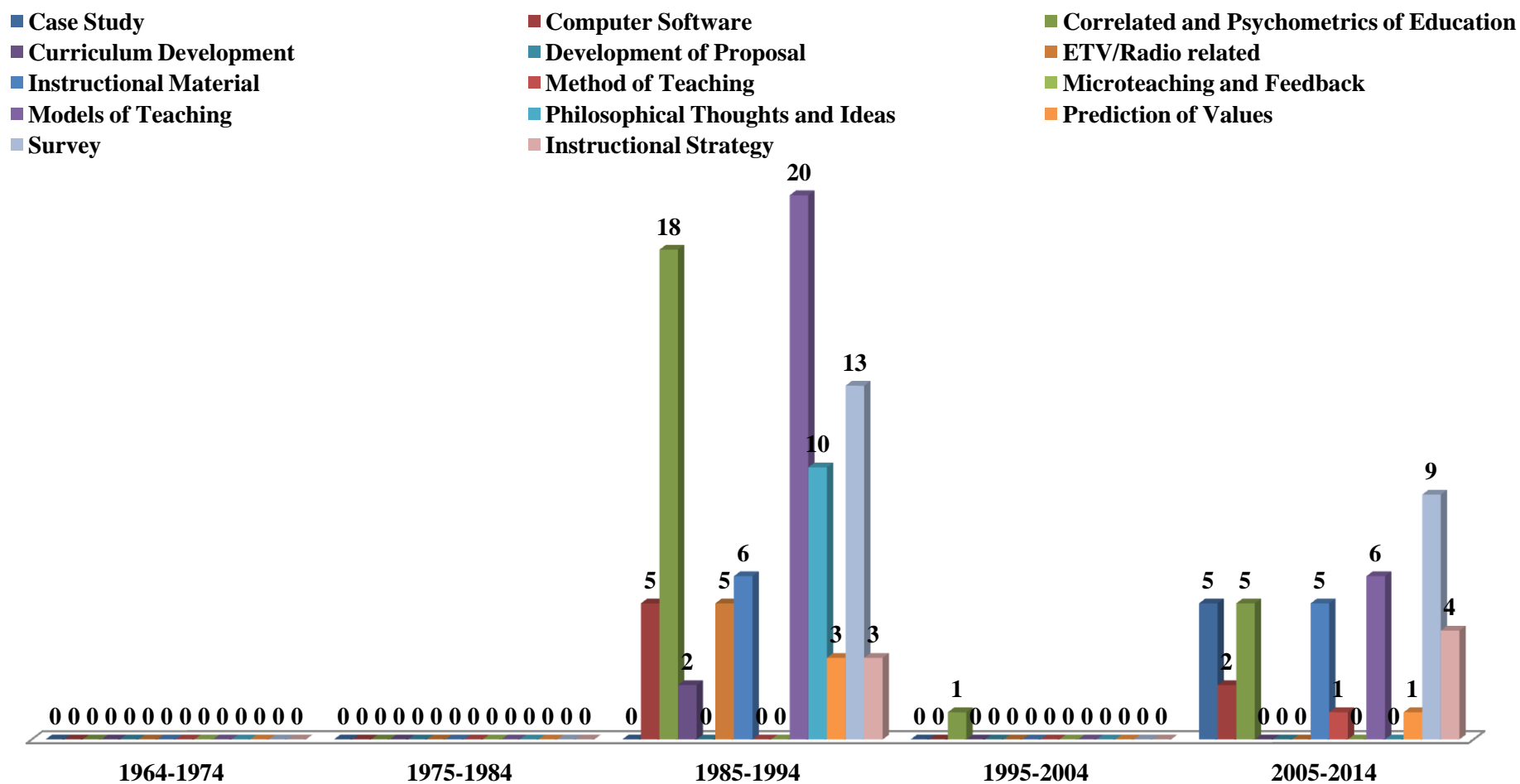


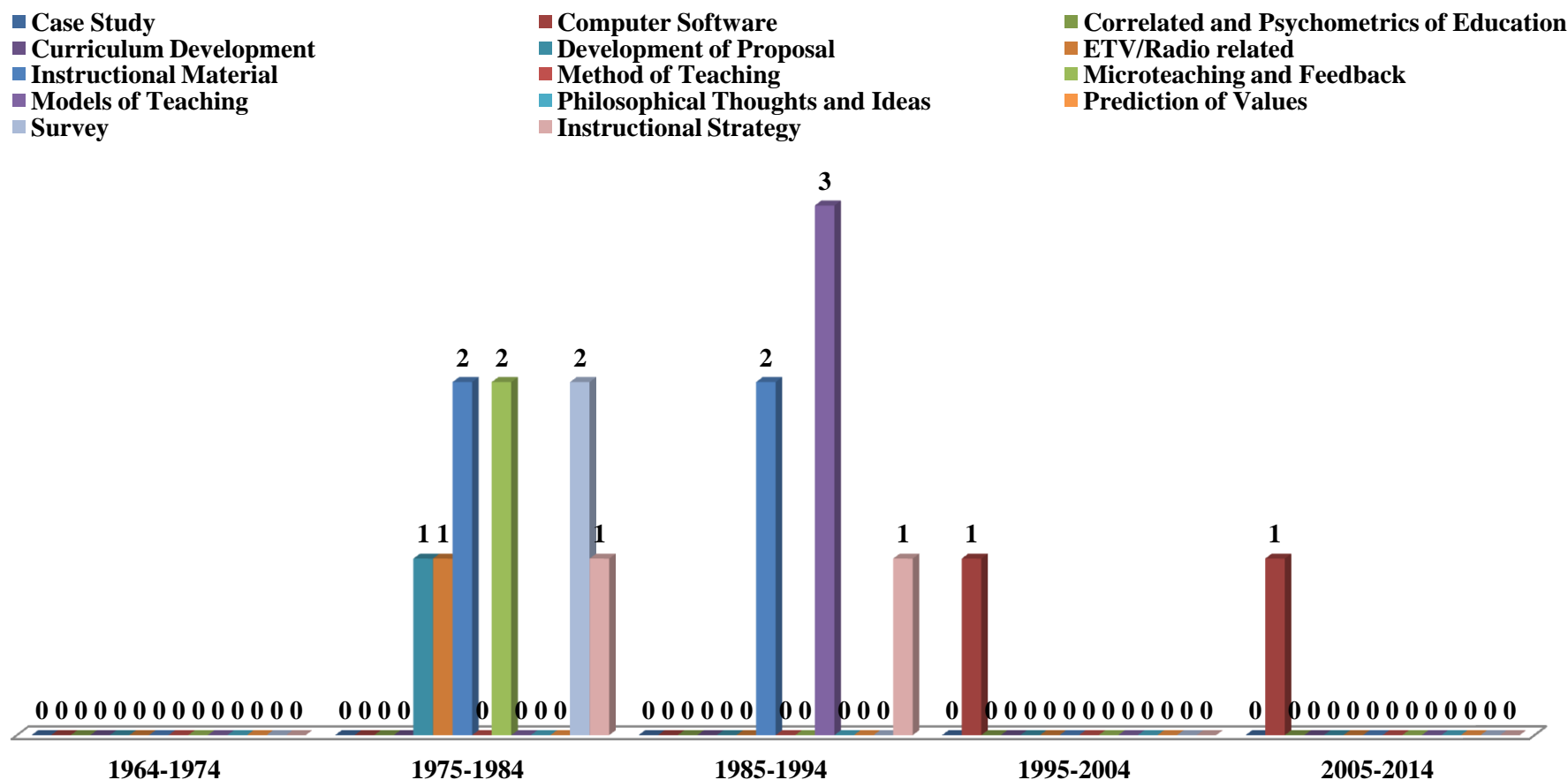
Table 4.61

Trend of Projects level research with respect to Final Product of the Research (Broad Categorization) at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014

S.N.	Output categories	Years					Total (Projects)	
		1964-1974	1975-1984	1985-1994	1995-2004	2005-2014	N	%
1	Case Study	0	0	0	0	0	0	0.00
2	Computer Software	0	0	0	1	1	2	11.76
3	Correlates and Psychometrics of Education	0	0	0	0	0	0	0.00
4	Curriculum Development	0	0	0	0	0	0	0.00
5	Development of Proposal	0	1	0	0	0	1	5.88
6	ETV/Radio	0	1	0	0	0	1	5.88
7	Instructional Material	0	2	2	0	0	4	23.53
8	Method of Teaching	0	0	0	0	0	0	0.00
9	Microteaching and Feedback	0	2	0	0	0	2	11.76
10	Models of Teaching	0	0	3	0	0	3	17.65
11	Philosophical Thoughts and Ideas	0	0	0	0	0	0	0.00
12	Prediction of Values	0	0	0	0	0	0	0.00
13	Survey	0	2	0	0	0	2	11.76
14	Instructional Strategy	0	1	1	0	0	2	11.76
	Total	0	9	6	1	1	17	100.00
	%	0.00	52.94	35.29	5.88	5.88	100.00	

Graph 4.79

Trend of Project level research with respect to Final Product of the Research (Broad Categorization) at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014



Out of 124 M.Phil. Researches, maximally 'Models of Teaching' were experimented in 26 (20.97 percent) researches, 'Psychometrics and Correlates of Education' were explored in 24 (19.35 percent) researches, 'Descriptive Survey' 22 (17.74 percent) researches, 'Instructional Material' 11 (8.87 percent) researches, 'Philosophical Ideas and Thoughts' were churned out in 10 (8.06 percent) researches, 'Instructional Strategy' was developed in 7 (5.65 percent) researches, 'Software and Databases' were designed in 7 (5.65 percent) researches, 'ETV/ Radio Broadcasts' and 'Case study' were explored in 5 (4.03 percent) researches, 'Value Prediction' was explored 4 (3.23 percent) researches, 'Curriculum Development' in 2 (1.61 percent) researches, 'Methods of Teaching' was experimented in 1 (0.81 percent) research, 'Microteaching/Feedback' and 'Development of Proposal' as output was not explored in M.Phil. researches.

Out of 17 research Projects, maximum 'Instructional Material' was the output in 4 (23.53 percent) researches, 'Models of Teaching' was experimented in 3 (17.65 percent) researches, 'Descriptive Survey', 'Instructional Strategies' and 'Software and Databases' were developed in 2 (11.76 percent) researches, 'Microteaching and Feedback' was explored in 2 (11.76 percent) researches, 'ETV/ Radio Broadcasts programs' were evaluated in 1 (5.88 percent) researches, 'Development of Proposal' was carried out in 1 (5.88 percent) research. 'Correlates and Psychometrics in Education', 'Philosophical Ideas', 'Case Study', 'Value Prediction', 'Curriculum Development', 'Methods of Teaching' as output were explored at the Project Level.

Out of 290 (149 Ph.D., 124 M.Phil. and 17 Project researches), 'Instructional Material' was prepared as output in 49 (16.90 percent) researches, 'Descriptive Survey' was explored in 48 (16.55 percent) researches, 'Models of Teaching' was explored in 45 (15.52 percent) researches, 'Instructional Strategy' was explored in 40 (13.79 percent) researches, 'Psychometrics' was explored in 32 (11.03 percent) researches, 'Philosophical Ideas/Thinking' was explored in 20 (6.90 percent) researches, 'Software and Databases' was explored in 16 (5.52 percent) researches, 'Microteaching/Feedback' and 'ETV/ Radio related broadcasts' was explored in 11 (3.79 percent) researches, 'Case Study' was explored in 6 (2.07 percent) researches, 'Curriculum Development' was explored in 5 (1.72 percent) researches, 'Value Prediction' and 'Methods of Teaching' was explored in 4 (1.38 percent) researches and 'Development of Proposal' was explored in 1 (0.34 percent) research.

From the trend analysis presented in the Table 4.58, Table 4.59, Table 4.60, Table 4.61, Graph 4.76, Graph 4.77, Graph 4.78, and Graph 4.79 it is evident that at the School of Education, Devi Ahilya Vishwavidyalaya, Indore during 1964-2014—

- At Ph.D. and Project level, maximum outputs were found related to ‘Instructional Materials’ i.e. Maximum number of researches was carried out related to developing Instructional Materials.
- At the Ph.D. level, ‘Instructional Strategies’ and ‘Survey reports’ were found to be the second and third most popular areas respectively as far as research output was concerned.
- At the M.Phil. level, maximum outputs were found related to ‘Models of Teaching’ i.e. the Maximum number of researches was carried out related to developing and experimenting related to ‘Models of Teaching’. ‘Correlates and Psychometrics in Education’ and ‘Instructional Materials’ were found to be the second and third most excavated areas respectively as far as research output was concerned.
- At the Project level, ‘Models of teaching’ was found to be the second most preferred area as far as the research output was concerned.
- Considering all the three levels of research (Ph.D., M.Phil. and Project) maximum outputs were found related to ‘Instructional Materials’ i.e. Maximum number of researches was carried out related to developing ‘Instructional Materials’. ‘Surveys’, ‘Models of teaching’ and Instructional Strategies’ were found to be the second, Third and Fourth most explored areas respectively as far as the research output was concerned. Preparation of the ‘Institutional Materials’ and conducting ‘Survey’ dominated the researches.

Overall it can be easily elicited that the School of Education, Devi Ahilya Vishwavidyalaya, Indore ’s focus area of research during 1964-2014 was Developing ‘Instructional Materials’, Designing ‘Models of Teaching’ and Conducting ‘Surveys’ and Evolving ‘Instructional Strategies’.

The trends of the researches carried out at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014 was presented in the previous sections. The Data Analysis and Interpretation with respect to the Objective—1, Objective —2, and Objective—3 was presented so far. Objective —4 of the study is related to the

research synthesis of findings with respect to the variables studies in the researches at the School of Education, Devi Ahilya Vishwavidyalaya, Indore, during 1964-2014 is being presented in the next chapter.