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Trend Analysis of Educational Researches Done From Year 2010 to 2015 in FOE, BHU

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Abstract: *Researches may play an important role in the development of any Nation, if done properly and in a right direction. Researches should fulfil the needs of the society and helpful to solve the contemporary issues and problems. Before selecting the research topic, it is important to know about the present status of researches and developments in that particular area or subject which belongs to researcher. Investigators try to know the current issues and needs of the society. For this we do 'review of literature'. In doing review of literature we face many problems and it takes a lot of time. Keeping those problems in mind we tried to give a database of researches by analysing the trend of researches. Since trend analysis of researches gives us information about the prevalence of researches in that particular duration. Trend analysis of researches gives us a clear picture of areas which were more focused and which were neglected or less focused. Trend analysis also helps in policy making and gives feedback about the quality of researches. In this paper, the investigator will discuss about the trend of PhD theses from 2010 to 2015 done in Faculty of Education of Banaras Hindu University, Varanasi on the basis of information collected from the self-made checklist which has four parts and 24 dimensions.*
Keywords: *Trend analysis, Educational research*

Background of the Study:

Education is the most important factor of the growth and development of any individual as well as any society or country. Education is a significant apparatus that is applied in the contemporary world to succeed, as it mitigates the difficulties which are looked throughout everyday life. The information increased through education empowers person's capability to be ideally used inferable from preparing of the human personality. This opens entryways of chances and empowers individual to accomplish better prospects in profession development. Education is a human right and it plays a vital role in the development of any country whether it is economically, socially or emotionally. Education in Universities is more than a high level in the learning procedure; it is a basic segment of human improvement around the world. It gives not just the significant level abilities important for each work showcase yet, in addition, the preparation fundamental for instructors, specialists, medical caretakers, government employees, engineers, humanists, business people, researchers, social researchers, and a horde of other faculty. The most significant job they have been allotted is the creation of exceptionally talented labour and research yield to meet apparent targets. The research draws its capacity from the way that it is empirical: as opposed to simply guessing about what may be powerful or what could work. Researches give facts and information to policymakers on which they can base their choices. Besides, great research uses philosophies that can be repeated, produces results that are examinable by peers, and makes information that can be applied to true circumstances. Researchers fill in as a group to upgrade our insight into how to best address society's needs and issues. Before selecting the topic of research, the researcher must know about the researches done in the interest area of the researcher. To work on a significant and relevant issue, the researcher does review of literature in that particular field. Due to lack of a complete database which may give information of all the researches done in an institution, faculty or department, researchers face many problems. It takes a lot of time to find that -what related researches are done and what type of researches are not done, what issues or variables are considered and what are neglected in researches in a particular area etc. Trend of researches helps in review of literature, gives feedback to policymakers and administrators, and tells about the

quality of researches extra. Trend analysis offers insights for researchers into how they can develop their research effectively in the particular field and enhance the chances of their research outputs being accepted.

Gupta & Koul (2007) has done a trend study entitled as '*Research studies on creativity in India since 1990(A trend analysis)'.* This study was aimed to find the trends in researches in the context of some variables as- year of publication, type of creativity, setting of research, scope of sample, tests used extra. Karatas, Sercin (2008) has done a trend analysis on internet based distance leraning researches and revealed the trends of these researches with respect to topic, method, data collection tool, statistical techniques used for data analysis, used software, country where study was conducted and other variables. Kurup and Arora (2010) studied the *Trends in Higher Education* and have given a holistic view on the characteristics of doctoral degrees obtained by individuals in various areas across 10 years (1998-2007). As per the information provided by National Institutional Ranking Framework (NIRF, 2018), MHRD the Banaras Hindu University has one of the best education institutions in India and the standard of education is considered to be very high compared to many other Universities in the country. Kumar (2015) in his dissertation has done a trend analysis of Ph.D. theses completed in Faculty of education of Banaras Hindu University during the year 1971 to 2014 with reference to some limited variables. Egmir, Erdem & Kocyigit (2017) has done a trend study entitled as *'Trends in Educational Research: A Content Analysis of the Studies Published in International Journal of Instruction'* in Turkey. The study was aimed to analyze the trends of researches with respect to countries where study was conducted; number of author in study; topic of the study; research method & design; data collection technique; data analysis technique; sampling technique; sample size and sample type .

Keeping all above facts and views in mind, in this paper researcher wants to specifically provide an empirical answer of the question that, **what is the Trend of Researches in Faculty of Education, Banaras Hindu University?** This paper is a part of PhD work of the researcher which is entitled as "A Trend Analysis of Ph.D. Theses Completed till 2016 in Faculty of Education of Different Universities of Varanasi." Before discussing the core part of the paper we should know about some key words, which are as follows-

Trend Analysis: The trend analysis is an interesting application of the descriptive method. In essence, it is based on a longitudinal consideration of recorded data indicating what has been happening in the past, what the present situation reveals, and, on the basis of these data, what is likely to happen in future. Trend is the practice of collecting information and attempting to spot a pattern, or prevalence in the information.

Educational Researches: Educational research is the study and investigation in the field of education. In this paper educational research refers to researches done at PhD level in Faculty of Education of BHU.

To arrive at the adequate result the following objectives are framed-

Objectives of the study:-

To identify the trend of researches in faculty of education BHU during the year 2010 to 2015 with respect to type of research, method, gender of researcher, time span and other some specific probe.

Variables studied in this paper: From the checklist following variables are studied and discussed under this research paper-

- **Type of Research:** This variable is divided into two groups – Basic and Applied. In this paper Basic research refers to those researches which develop new knowledge, module, theory, method or any tool and Applied research refers to those researches which studies relationship and applicability of theories and principal to the solution of a problem.
- **Method of Research:** This variable is divided into four group i.e. historical research, Descriptive, Experimental and Philosophical research.
- **Gender of Researcher:** This variable contains two groups male and female.
- **Time Span:** To find the trend about the year of submission of theses during the year 2010 to 2015, the time is divided into three slots i.e. 2010-2011, 2012-2013 and 2014-2015.
- **Use of Unnecessary Theory:** The researcher found that in many thesis unnecessary theories was written specially in the third chapter which is design or methodology of research. This variable divided into two

groups- the theses in which unnecessary theories was written or used and the other in which unnecessary theories was not written or used.

- **Region:** This variable refers to geographical region where the study was done or sample was taken. The researcher divided it into four parts- Varanasi, other city/cities, other country and the researches in which this delimitation is not applicable.
- **Rationale behind adopted Statistical techniques**: This variable refers to the rationale behind use of particular statistical technique for data analysis and whether the rationale given or not given before using that technique. The researcher divided this variable into three groups- given, not- given and not needed.
- **Level of Institution:** This variable refers to the institution which belongs to the research or on which the research was done.

Hypothesis: The following null hypotheses were tested in this study at 0.05, level of significance -

$H_0$1: The proportion between basic research and applied research is same.
$H_0$2: The proportion between male and female researcher is same.
$H_0$3: The proportion between the two groups of unnecessary theory is same.
$H_0$4: The proportion among number of researches in different time span is same.
$H_0$5: The proportion among different group of rationale behind adopted Statistical techniques is same.
$H_0$6: The proportion among different method of research used is same.
$H_0$7: The proportion among number of researches done in different region is same.
$H_0$8: The proportion among number of researches done on different level of institution is same.

Design of the Study-

Method: Descriptive Trend Analysis method is used for this study. The trend study points to conclusions reached by the combined method of Historical and Descriptive analysis (Best and Kahn, 1995, p112).

Population: All Researches (theses) have done from year 2010 to 2015 in FOE, BHU. Varanasi (India).

Sample and sampling Technique: This study is a population study because in order to know the trend of doctoral research, researcher needs to assess all the Ph.D. theses (i.e. 110 theses) done from year 2010 to 2015 in Faculty of Education, BHU.

Tool used: A self made tool 'checklist for Trend analysis of Ph.D. theses in Education' was used for data collection. Tool contains following four parts and 24 dimensions or variables under these parts-

Part A: Initial Information
Part B: Types & Area of Research
Part C: Methodology
Part D: Some other Specific Probe

Statistical techniques used: For the analysis of collected data the researches has used chi-square for hypothesis testing and pie-chart, bar graphs for other analysis. The trends of researches will found on these techniques of data analysis.

Limitations: From year 2010 to 2015 many researches are not available in the library catalogue and desk also due to some maintenance problem, thus absence of those research documents is a limitation for this study.

Analysis and interpretation: Hypothesis testing was done on 0.05, level of significance. The table for all the null hypotheses and their result are discussed below-

$H_0$1: The proportion between basic research and applied research is same.

Table -1 shows the proportion between basic research and applied research with chi-square

S.No.	Category	fo	fe	chi-square	Table Value	Result
1	Basic	5	55	90.90	3.841	Different proportion/Significant
2	Applied	105	55			
	Total	110				

At 0.05 level of significance with degree of freedom 1 [df= (2-1) (2-1)] the calculated chi- square value (90.909) is greater than table value (3.841), therefore null hypothesis i.e. *The proportion between basic research and applied research is same*, has been rejected. The above statistical analysis shows that there is unequal number of different type of researches (i.e. basic and applied research), have been submitted in the Faculty of Education(FOE) of Banaras Hindu University(BHU) from year 2010-2015.

$H_0$2: The proportion between male and female researcher is same.

Table -2 shows the proportion between male and female researcher with chi-square

S.No.	Category	fo	fe	chi-square	Table Value	Result
1	Male	64	55			
2	Female	46	55	2.94	3.841	Same proportion/Not-significant
	Total	110				

At 0.05 level of significance with df=1 , the calculated chi- square value (2.945) is smaller than table value (3.841), therefore null hypothesis i.e. *The proportion between male and female researcher is same*, has not been rejected. It interprets that there is no significant difference between the male and female researcher in FOE, BHU during the year 2010-2015.

$H_0$3: The proportion between the two groups of unnecessary theory is same.

Table: 3 shows the proportion between the two groups of unnecessary theory and chi-squre description

S.No.	Category	fo	Fe	chi-square	Table Value	Result
1	Written	20	55			Different
2	Not- written	90	55	44.54	3.841	proportion/Significant
	Total	110				

At 0.05 level of significance with df=1, the calculated chi- square value (44.545) is greater than table value (3.841), therefore null hypothesis i.e. *The proportion between the two groups of unnecessary theory is same*, has been rejected. It interprets that there is unequal number of thesis in which unnecessary theory is written or not written in FOE, BHU during the year 2010-2015.

- These entire of hypotheses (H01-H03) was based on three different categories. If we consider the above observed frequencies for basic and applied research, male and female and use of unnecessary theory, only male female category was distributed in the same proportion. From figure 1, it is clear that out of 110, 105 theses were applied in applied nature. Only 46 researchers were female and unnecessary theses were used in chapters of only 20 theses while 90 were free from this negativity.

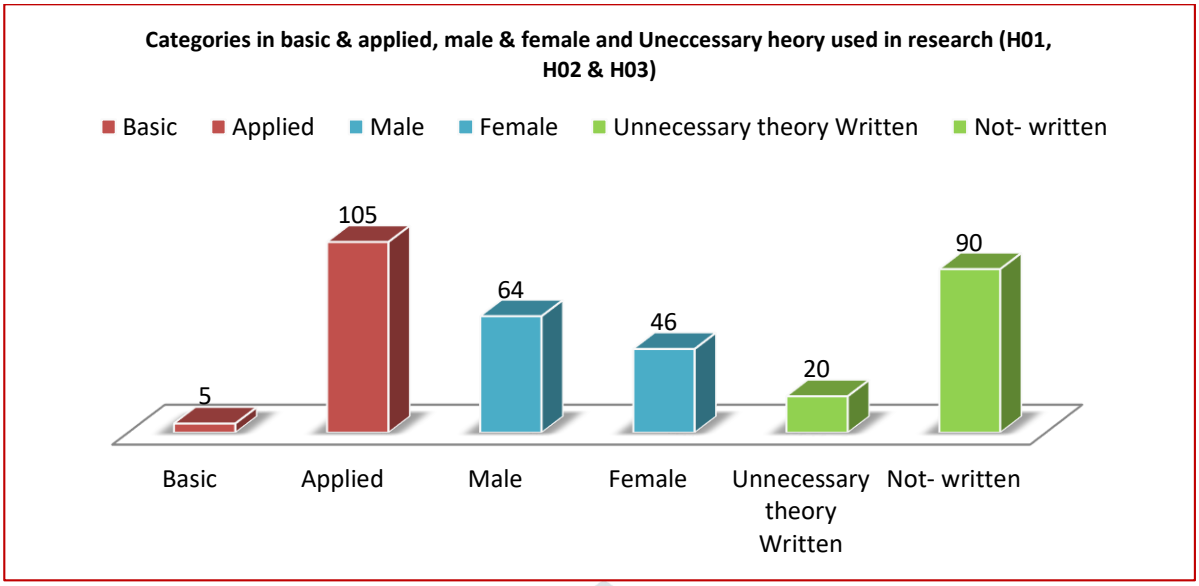

Figure 1: Observations on basic & applied, male & female and unnecessary theory used

$H_0$4: The proportion among number of researches in different time span is same.

Table: 4 shows the proportion among number of researches in different time span with chi-square

S.No.	Category (year)	fo	fe	chi-square	Table Value	Result
1	2010-2011	23	36.67			
2	2012-2013	27	36.67			Different proportion/Significant
3	2014-2015	60	36.67	22.48	5.991	
	Total	110				

At 0.05 level of significance with df = 2, the calculated chi- square value (22.488) is greater than table value (5.991), therefore null hypothesis i.e. *The proportion among number of researches in different time span is same*, has been rejected. This shows that the number of researches submitted in different time span in FOE, BHU during the year 2010 – 2015, are different.

$H_0$5: The proportion among different group of rationale behind adopted statistical techniques for data analysis is same.

Table: 5 Shows the proportion among different group of rationale behind adopted statistical techniques for data analysis with chi-square

S.No.	Category	fo	fe	chi-square (X^2)	Result
1	Given	6	36.67		
2	Not-given	100	36.67	164.13	Different proportion/Significant
3	Not-needed	4	36.67		
	Total	110			

At 0.05 level of significance with df = (3-1) (2-1) or 2, the calculated chi-square value (164.13) is greater than the table value (5.991). This can be interpreted as the null hypothesis i.e. *The proportion among different group of rationale behind adopted statistical techniques for data analysis is same*, has been rejected. The above statistical analysis shows that there is unequal number of researches done in which rationale of statistical technique is given, not-given or not-needed, submitted in FOE, BHU during the year 2010-2015.

❖ These entries for hypotheses (H04& H05) both were based on three different categories. If we consider the above observed frequencies for time span and statistical techniques used every category and its subcategory

was not same in proportion as the hypothesis were rejected. . From figure 2, it is clear that out of 110 theses 23, 27 and 60 researches were done in years 2010-11, 2012-13and 2014-15 also rationale behind use of statistical techniques was given clearly in 100 thesis while 6 has no information given clearly followed by 4 has no basic need to mention the rationale for statistics used in research.

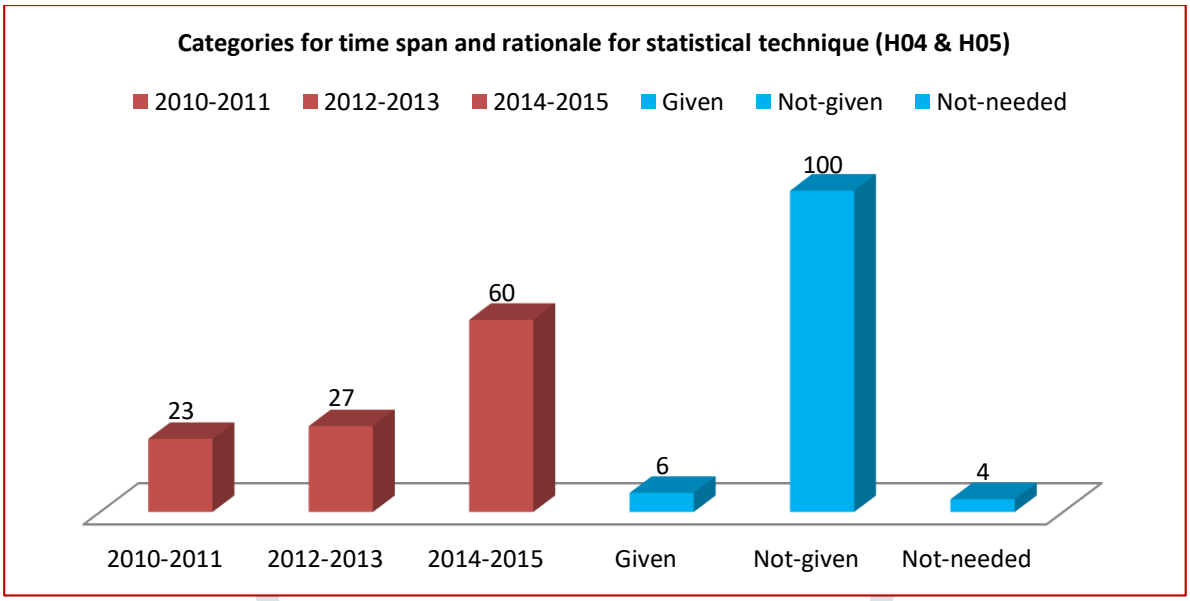

Figure 2 Shows the Categorization for time span and rationale behind statistical techniques for (H04&H05)

$H_0$6: The proportion among different method of research used is same.

Table: 6 shows **t**he proportion among different method of research used with chi-square

S.No.	Category	fo	fe	chi-square	Table Value	Result
1	Historical	1	27.5	242.9	7.815	Different proportion/ Significant
2	Descriptive	98	27.5			
3	Experimental	10	27.5			
4	Philosophical	1	27.5			
	Total	110				

At 0.05 level of significance with df=3, the calculated chi- square value (242.945) is much greater than table value (7.815), therefore the null hypothesis i.e. *The proportion among different method of research used is same*, has been rejected. The above statistical analysis shows that there is unequal number of researches done with different research method in FOE, BHU from year 2010 to 2015.

$H_0$7: The proportion among number of researches done in different region is same.

Table: 7 shows **t**he proportion among number of researches done in different region with chi-square

S.No.	Category	fo	fe	chi-square	Table Value	Result
1	Varanasi	51	27.5	65.49	5.991	Different proportion/Significant
2	Other city/ cities	46	27.5			
3	Other Country	10	27.5			
4	Not-Applicable	3	27.5			
	Total	110				

At 0.05 level of significance with df =3, the calculated chi- square value (65.490) is much greater than table value (5.991), therefore the null hypothesis i.e. *The proportion among number of researches done in different region is same*, has been rejected. The above statistical analysis shows that there is unequal number of researches done in different region submitted in FOE, BHU during the year 2010-2015.

- These entries for hypotheses (H06& H07) were based on method of research and research done in different region with four different categories. If we consider the above observed frequencies for method of research and research done in different regions and its subcategories was not same in proportion as the hypotheses were rejected. . From figure 3, it is clear that out of 110 theses only one was in historical based research 10 was experimental and rest were Descriptive in nature. 51 researches were organised for Locale of Varanasi 46 for/on other cites of India. Apart from these 10 researches were focused on other countries reference and only three were those researches which the investigator found not applicable category.

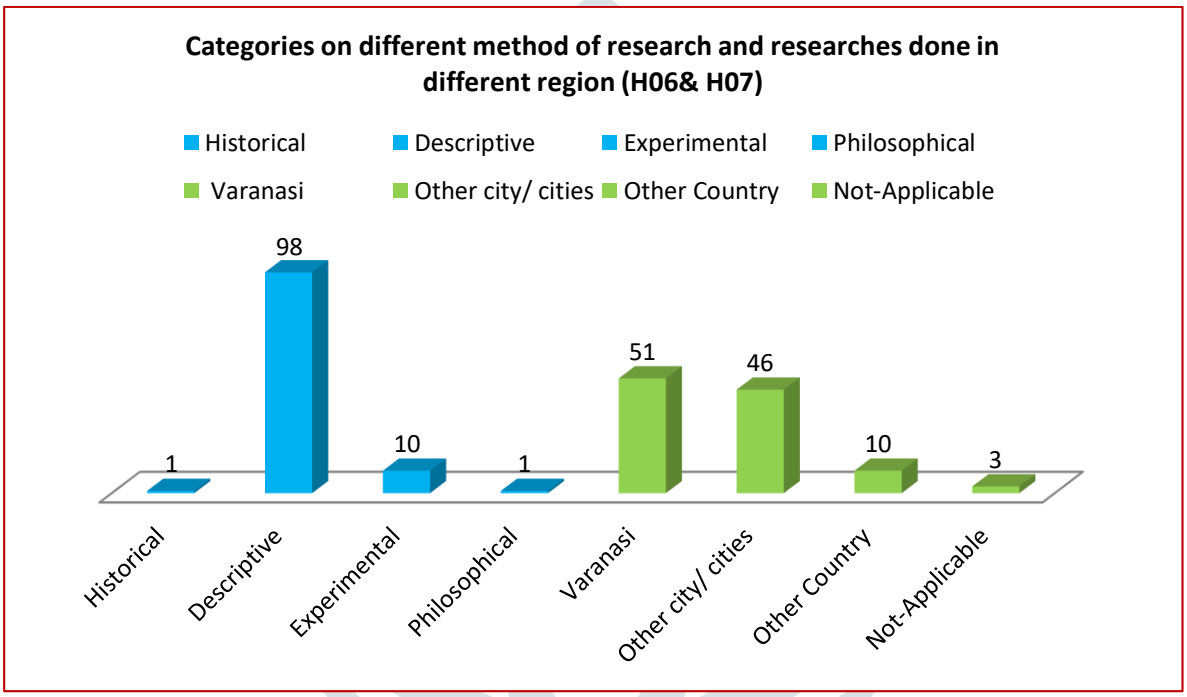

Figure 3 shows the methods of research and research done in different regions

$H_0$8: The proportion among number of researches done on different level of institution is same.

Table: 8 shows the proportion among number of researches done on different level of institution with chi-square

S.No.	Category	Fo	fe	chi-square	Table value	Result
1	Pre-school	0	11	68.18	16.919	Different proportion/Significant
2	Only Primary	14	11			
3	Only Middle	5	11			
4	Elementary	9	11			
5	Secondary	26	11			
6	Higher Secondary	26	11			
7	Higher Education	12	11			
8	Distance Education	3	11			
9	Teacher Education	3	11			
10	Others	12	11			
	Total	110				

At 0.05 level of significance with df=9, the calculated chi- square value (68.181) is greater than table value (16.919), therefore null hypothesis i.e. *The proportion among number of researches done on different level of institution is same*, has been rejected, therefore there is unequal number of researches done on different level of institution in FOE, BHU during the year 2010-2015.

- The entry for hypothesis (H08) was based on Researches done on different level of institutions and observed in 10 different sub categories. If we consider the above observed frequencies for Pre-school, Only Primary, Only Middle, Elementary, Secondary, Higher Secondary, Higher Education, Distance Education, Teacher Education, every category and its subcategory was not same in proportion as the hypothesis was rejected. From figure 3, it is clear that out of 110 theses, Secondary, Higher Secondary was 26 and this was more in all categories that were observed. While at pre-school level there was no any PhD thesis in faculty of education BHU from 2010-2015

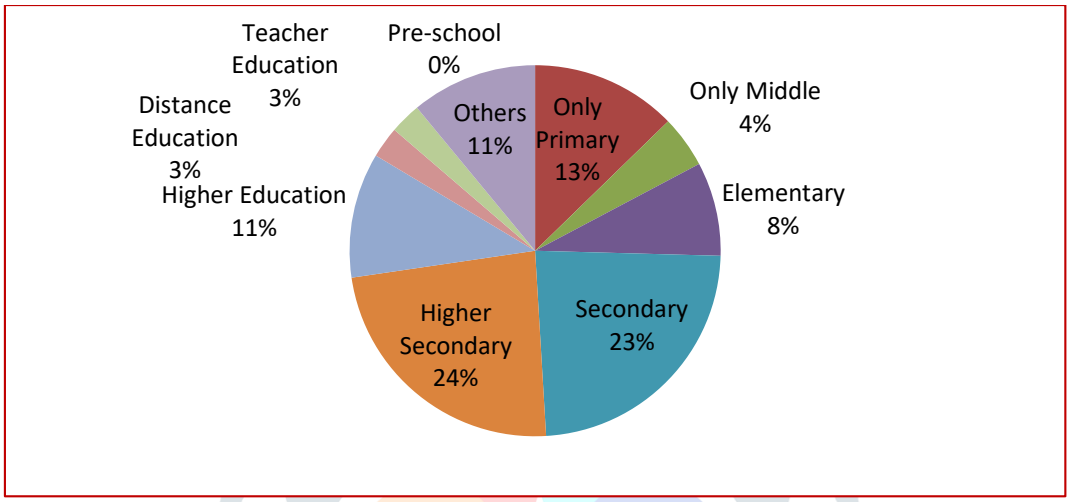

Figure 4 shows Pie-chart Researches done on different level of institutions (H08)

Result and Discussion: The researcher found that in FOE, BHU during the year 2010-2015, trend is going towards the applied type researches (95%) and descriptive researches (89%) are preferred followed by experimental researches (9%). Kumar (2015) also found the same trend in his dissertation with reference to type and method of researches. There is no significant difference between the number of male (58%) and female researchers (42%). Maximum number of theses submitted in 2014-2015 (55%) followed by 2012-2013 (24%) and 2010-2011 (21%). The researcher found that more researches are related to secondary (23%) and higher secondary (24%) level and there is no any research related to pre- schooling. 11% researches are done related to others (i.e. policy, community, philosophy etc). 46% of researches are done in Varanasi region, 42% are in other city/cities and 9 % in other countries. In 18% researches unnecessary theory was written and in 91% of researches the rationale behind adopted statistical technique for data analysis, was not given.

Conclusion:

The investigator has discussed about the trend of PhD theses from 2010 to 2015 done in Faculty of Education of Banaras Hindu University, Varanasi on the basis of information collected from the self-made checklist which has four parts and 24 dimensions. Out of eight hypotheses on different areas and categories only one was failed to reject that was the distribution of researches on male and female. Means the trend is running in equal and satisfactory sense. The PhD theses were more focused on applied field of education, unnecessary theory was not used by the researcher in FOE BHU. From 2014-15 more researches were submitted and the trend of method for research is focused on descriptive method at local level Varanasi. All the observations indicated that rationale behind use of statistical techniques is leaving the trend of research means the researchers were not use rationale behind used statistics in research. And another trend of research in FOE BHU is going on with more focus on Higher education area of research. Thus this Trend analysis of researches gives us a clear picture of areas which were more focused and which were neglected or less focused for doing PhD in education at BHU

from 2010-2015. This trend analysis will be helpful to identify the gaps and opportunities for future researches. This study will help the researcher, supervisors and administrators to understand the prevalence, quality and estimation of doctoral researches and will guide for future researches.

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