Research Article

To Study the Hemisphere Dominance in Information Processing among B.Ed. Pupil Teachers

Isha Sharma[1], Sarita Sharma[2]

Abstract

Students preferentially take in and process information in different ways, by seeing and hearing, reflecting and acting, reasoning logically and intuitively, analyzing and visualizing, steadily and in fits and starts. Information that is processed cognitively by an individual is largely influenced by the dominance of hemisphere-city in his pattern of thinking and learning. It is not necessary that one learns with same way. If the learner discovers how to process information best, he can learn things more efficiently and in less time. That may help to expand the strategies on use for learning and studying. When learning something new or difficult, one naturally tends to use the learning style you prefer. It is good to know what this learning style is so one can respond most effectively to the material being presented. The present research article is descriptive in its nature and during the course of inquiry; researcher tries to find out the hemisphere dominance in the process of thinking and learning patterns or styles among B.Ed. pupil teachers of Himachal Pradesh.

Keywords: Hemisphere, Himachal Pradesh, Pupil teachers

Introduction

Styles are ways of directing the intellect which an individual finds comfortable. The Style of learning and thinking is an important as level of ability. In the present scenario of high competition when everybody is striving for excellence, a need for the situational behavioral change increases day by day. The performance of students not only depends on the potentialities of the teacher but also on the inner resources of oneself. There are two parts of cerebral hemisphere of brain of an individual. The right cerebral hemisphere, which controls left side of the body, is called Minor Subordinate or mute side because it cannot verbalize what it knows. This is anatomically smaller than left hemisphere. For many years attention was focused on left hemisphere in which speech was localized, the so called “dominant”, “leading” or “major” hemisphere. It is considered to be more active than right hemisphere in most adults, as indicated by EEG analysis.

The differences in preferences of two hemispheres for information processing have been referred to as style of learning and thinking. Style of learning and thinking is cerebral dominance of an individual in retaining and processing modes of information. It identifies hemisphere city dominance by way of studying the hemisphere functions. It indicates a student’s learning strategy and brain hemisphere Preference in problem solving. Creativity refers to the mental ability of divergent thinking or open minded solve new and superior solution to complex, ambiguous or unclear problems. It is a complex process involving a concept of self and relationship to one’s environment. It has both social and personal significance. Achievement in the wider term means educational growth which includes growth in all aspects.[1]

[1,2]Research Scholar, IASE(D) University.

Correspondence: Ms. Isha Sharma, Research Scholar, IASE(D) University.

E-mail Id: ishakaushik186@gmail.com

Orcid Id: http://orcid.org/0000-0002-8232-9859

How to cite this article: Sharma I, Sharma S. To Study the Hemisphere Dominance in Information Processing among B.Ed. Pupil Teachers. *J Adv Res Humani Social Sci* 2017; 4(1): 30-34.

Digital Object Identifier (DOI): https://doi.org/10.24321/2349.2872.201704

ISSN: 2349-2872

Significance of the Study

In present study we tries to study learning style and teaching style of B.Ed. pupil teachers, because it is quite clear that a good level of learning style and thinking style in teacher is necessity of today's society. We feel its importance in different sphere of life. In the present scenario a good level of thinking style occupying a very importance place in phenomenal world. Without a healthy learning style and thinking style one cannot survive significantly in the world. On the other hand India is under-developing country. People live in different areas; they have different state of mind. The investigator felt that is a very important aspect to analysis the standard of learning style and thinking style of B.Ed. pupil teachers belongs to rural and urban area and researcher ultimately took this concept for further research.

Research Methodology

Thus, research methodology consists of all general and specific activities of research mastery of the research methodology invariably enhance understanding of research activities. Thus, it seems that research design and methodology have the same meaning i.e., mapping strategy of research[1] in the present research descriptive research method is incorporated to get systematic measures about hemisphere preferences among B.Ed. pupil teachers.

Population of the Study

The population of concrete individuals is called as existent population, while the collection of all possible ways in which an event can materialize, as the hypothetical population. The term 'population' or universe conveys a different meaning than a traditional one. In census survey, the count of individuals (men, women and children) is known as population for the present study B.Ed. pupil teachers of District Kangra in Himachal Pradesh is considered as the population.[2]

Sample

Sample is a portion of population which is selected for purpose of study or investigation that is true representative of the population from which it has been drawn. The scope of generalization of the research finding depends on the representation of the sample. The adequacy of a sample depends upon knowledge of popular as well as upon the method used in drawing the sample.[2] In order to accomplish this study sample of 200 B.Ed. Pupil teachers are selected through probability sampling technique.

Tool Used

Every scientific research is processed through certain well defined and well-designed tools. In conducting research, an investigator resorts to some techniques or devices for gathering facts or data from the relevant field. There data gathering devices or instrumentalities are called "research-tools".[3] In order to collect the data for the present study, style of learning and thinking by D. Venkantaraman (solat) is used as a data collection tool.

Objectives of the Study

- To study the right hemisphere and left hemisphere preferences for information processing in B.Ed. pupil teachers of district Kangra
- To study the right hemisphere and left hemisphere preferences for information processing among B.Ed. pupil teachers in relation to their gender i.e., boys and girls
- To study the right hemisphere and left hemisphere preferences for information processing among B.Ed. pupil teachers in relation to their area i.e., rural and urban

Hypothesis of the Study

- There exists no significant difference in the right hemisphere and left hemisphere brain preference for information processing among B.Ed. pupil teachers of district Kangra
- There exists no significant difference in the left and right hemisphere preferences for information processing among B.Ed. pupil teachers in relation to their gender i.e., boys and girls
- There is no significant difference in the left and right hemisphere preferences for information processing among B.Ed. pupil teachers in relation to their area i.e., Rural and Urban

Delimitation of Study

Delimiting a problem is very, important. A study should be delimited by following aspects

- The study will be delimited to B.Ed. pupil teachers of district Kangra of Himachal Pradesh. The study will be delimited to only 200 B.Ed. pupil teachers.
- The study will be delimited to find out the hemisphere dominance in information processing among B.Ed. pupil teachers.
- Measuring instrument: In behavioral science number of instrument are available but all tools cannot be used to measure. Thus the best available tool Sloat by D. venkatraman will be used for measuring the variable.
- Technique of research: A number of techniques can be used for analyzing data but in the present study chi-square used for statistical analysis.

Interpretation of Hypothesis

Ho_1: There exists no significant difference right hemisphere and left hemisphere brain preference for information processing among B.Ed. pupil teachers of district Kangra in Himachal Pradesh.

ISSN: 2349-2872

Table 1.Chi-Square Table for the Hemispherecity Preference for Information Processing in B.Ed Pupil Teachers

B.Ed. pupil teachers	R	L	W
Observed scores	141	55	55
Expected scores	66.6	66.6	66.6

Df = 2; X^2; = 143.9; P<0.01; Significant; Rejected

O-E = 74.4 -11.6 -62.6

$(O-E)^2$ = 5535.36 134.56 3918.76

$(O-E)^2/N$ = 83.11 + 2.020 + 58.84

X^2 = 143.97

Df = (r-1) (c-1) = (2-1) (3-1) = 1×2 = 2

Table 1 depicts that the Chi-square value is 143.97 with degree of freedom 2 is more than table value 9.210 at 0.01 level of significance. Hence, the null hypothesis is that "There will be no significance difference in the right hemisphere and left hemisphere brain for information processing among B.Ed. pupil teachers". Hence Hypothesis 1 is rejected.

Ho_2: There is no significant difference in the left and right hemisphere preferences for information processing in boys and girls B.Ed. pupil teacher

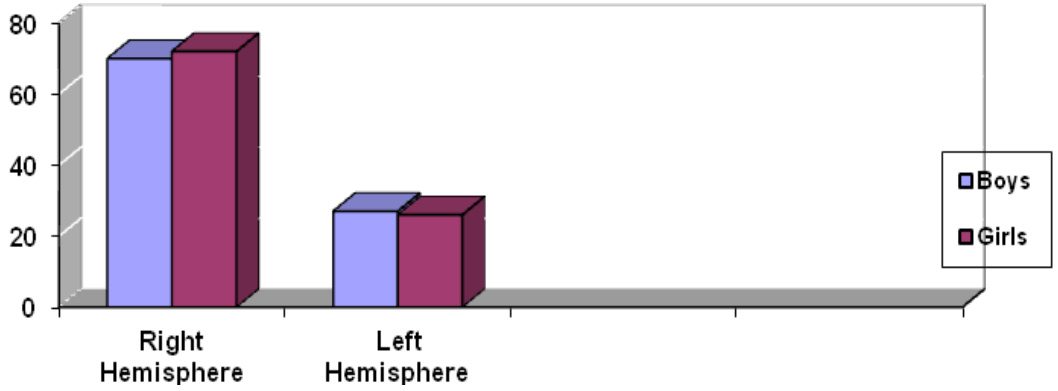

Figure 1.Bar Diagram Showing the Left Hemisphere, Right Hemisphere Brain Preferences for Information Processing in Boys and Girls B.Ed. Pupil Teachers

The above bar diagram shows that the right hemisphere brain dominance of boys is 70 is less as compared to girls right hemisphere brain dominance i.e., 72. The left hemisphere brain dominance of boys is 27 is more as compared to girls right hemisphere brain dominance i.e., 26.

Table 2.Chi-square Table for the Hemisphere-City Preference for Information Processing in Boys and Girls B.Ed. Pupil Teachers

Scores

Gender	R	L
Boys	70	27
Girls	72	26

Observed Scores

70	27	97
72	26	98
142	53	195

E = (A×B)/N = 142×97/195 = 13774 /195 = 70.6

Expected Scores

70.6	26.4	97
71.4	26.6	98
142	53	195

O	E	(O-E)	$(O-E)^2$	$(O-E)^2/E$
70	70.6	0.6	0.36	0.005
72	71.4	0.6	0.36	0.005
27	26.4	0.6	0.36	0.013
26	26.6	0.6	0.36	0.013

Df = 1; X^2; = 0.036; P>0.05 (6.635); Not significant; Accepted

Df = (r-1) (c-1) = (2-1) (2-1) = 1×1 = 1

Table 2 depicts that that the Chi-square value is 0.036 with degree of freedom 1 is less than table value 6.635 at 0.01 level of significance. Hence, the null is hypothesis that "There is no significant difference in the left and right hemisphere preferences for information processing in boys and girls B.Ed. pupil teachers." Hence, Hypothesis 2 is accepted.

Ho_3: There is no significant difference in the left and right hemisphere preferences for information processing in rural and urban B.Ed. pupil teachers.

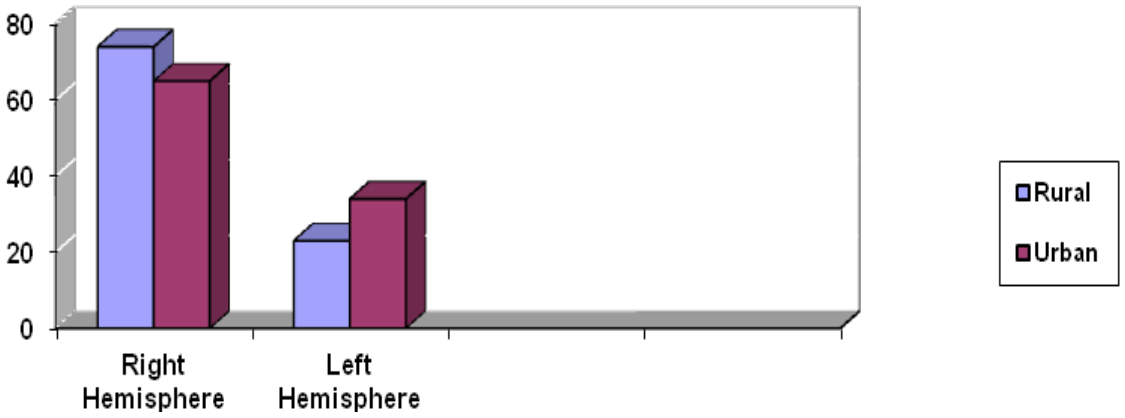

Figure 2.Bar Diagram Showing the Left Hemisphere, Right Hemisphere Brain Preferences for Information Processing in Rural and Urban B.Ed. Pupil Teachers

The above bar diagram shows that the right hemisphere brain dominance of boys is 74 is more than girls right hemisphere brain dominance i.e., 65. The left hemisphere brain dominance of boys is 23 is less as compared to girls right hemisphere brain dominance i.e., 34.

Table 3.Chi-square Table for the Hemisphere City Preference for Information Processing in Rural and Urban B.Ed. Pupil Teachers

Area	R	L
Rural	74	23
Urban	65	34

Scores

74	23	97
65	34	99
139	57	196

Observed Scores

68.79	28.21	97
70.21	28.79	99
139.00	57.00	196

E = (A×B)/N = 139×97/196 = 13483 /196 = 68.79

Expected Scores

O	E	(O-E)	$(O-E)^2$	$(O-E)^2/E$
74	68.79	5.21	27.14	0.39
65	70.21	5.21	27.14	0.38
23	28.21	5.21	27.14	0.00
34	28.79	5.21	27.14	0.00

Table 3 depicts that the Chi-square value is 0.77 with degree of freedom 1 is less than table value 6.635 at 0.01 level of significance. Hence, the null is hypothesis that "There is no significant difference in the left and right hemisphere preferences for information processing in Rural and Urban B.Ed. pupil teachers." Hence Hypothesis 3 is accepted.

Discussion

Above analysis and interpretation of data in relation to the objectives and hypothesis formed by the researcher, brings maximum desirable results and shows the optimum difference among variables and attributes, which enhances the significance of the study. To conclude this study investigator upholds three objectives and hypotheses respectively in relation to the problem to study the "Learning and thinking style of B.Ed. pupil teachers in relation to their area, gender, stream and category" Ho_1 found significant difference among their variables and attributes, hence these hypothesis are being rejected. On

 ISSN: 2349-2872

the contrary other $Ho_{2,3}$ shows insignificant relationships among their attributes are a variable that's why these hypothesis are being accepted. In the present study for the analysis of data belongs to Hypothesis 1 "There is no significant difference in the right hemisphere and left hemisphere brain preference for information processing among B.Ed. pupil teachers district Kangra". In order to verify this hypotheses the test were administrated on total sample of 200 pupil teachers. The Chi- Square value 143.97 with degree of freedom 2 is more than table value 9.210 at 0.01 level of significance. Hence, the null hypothesis is that "There will be significance difference in the right hemisphere and left hemisphere brain for information processing among B.Ed. pupil teachers. Hence Hypothesis 1 is rejected on the contrary Ho_2 "There is no significant difference in the left and right hemisphere preference for information processing among B.Ed. pupil teachers in relation to their gender i.e., boys and girls." In order to verify this hypotheses the test were administrated on total sample of 200 pupil teachers. Out of which 100 boys and 100 girls. The Chi-square value 0.036 with degree of freedom 1 is more than table value 6.635 at 0.01 level of significance. Hence, the null hypothesis is that "There will be no significant difference in the left and right hemisphere preference for information processing among B.Ed. pupil teachers in relation to their gender i.e., boys and girls." Hence Hypothesis 2 is accepted in the same way Ho_3 "There is no significant difference in the left and right hemisphere preference for information processing among B.Ed pupil teachers in relation to their area i.e., rural and urban." In order to verify this hypotheses the test were administrated on total sample of 200 pupil teachers. Out of which 100 rural and 100 urban pupil teachers were selected for sample. The Chi-square value 0.77 with degree of freedom 1 is more than table value 6.635 at 0.01 level of significance. Hence, the null hypothesis is that "There will be no significant difference in the left and right hemisphere preference for information processing among B.Ed. pupil teachers in relation to their area i.e., rural and urban." Hence Hypothesis 3 is accepted.[3]

References

1. Kaur GL. Style of learning and thinking of school children in relation to their achievement in mathematics, creativity and right and left handedness. Researcher's Tandem 2013; 4(13): 21-2.
2. Koul L. Methodology of Educational Research. Vikas Publishers, New Delhi. 2007.
3. Sharma R. Essentials of Scientific Behavioral Research. Vinay Rakheja, Meerut. 2007.
4. Singh H. Methodology of Educational Research and Educational Statics. Kalyani Publishers, New Delhi. 2011.
5. Singh YR, Bajpai RB. Research Methodology. S. B. Nangia Publishers, New Delhi. 2007.