

Awareness of Constructivism Among the Research Scholars of Higher Education: An Exploratory Study

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ABSTRACT

Constructivism has become a part of the psychological lexicon from the beginning of the second half of the twentieth century. Constructivism says that learner should construct their own knowledge through varied experiences. The present study is an attempt to explore the constructivist awareness among the research scholars of central university of Himachal Pradesh. The method used for study was descriptive research method in which survey was the technique employed. The sampling technique used for the study was purposive sampling technique. The total sample of the study includes forty two research scholars who were pursuing PhD in various disciplines from the Central University of Himachal Pradesh. The tool used for the study was a constructivism awareness scale (CAI) prepared and validated by the researcher in consultation with experts. The collected data were analyzed using t-test to derive valid conclusion. Findings of the study revealed that regarding the awareness of constructivism among the research scholars of CUHP, all of them have high level of awareness and the significant difference is found only based on their age. It was also found that there is no significant difference exists in the awareness of constructivism with respect to their gender and discipline.

Background of the Study

Education is an important instrument of human development and social living. "Education is the natural, harmonious and progressive development of man's innate powers." Pestalozzi quoted by Ruhela, (2011). Mankind has been educating from the ancient era for their personal and social development. The ancient education system is teacher centered and teacher transfers knowledge to students. Learners received the knowledge but were not able to retain it for a long time and apply it in their life or behavior. The present education system has been shifted from teacher centered to learner centered, and teaching learning process focus on the learner's attitude, interest, aptitude, individual difference, and level of mental ability. It has been shifted from traditional product oriented teaching to the modern constructivist approach which is focusing on the process orientation aspects of

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the education. This approach is very productive, where learner actively constructs new knowledge and real world on the basis of his/her previous knowledge and experience. Constructivist learning approach gives opportunity to learner to be more knowledgeable than others and develop higher order thinking skills.

Constructivism has become a part of the psychological lexicon from the beginning of the second half of the twentieth century. However, the underlying ideas, though largely embryonic in nature, back a good deal further. There is a history of two thousand years attached to constructivist thought in the eastern tradition and a history of at least three hundred years in western thought (Mohaney, 2005). "Constructivism involves the process of questioning, exploring and reflecting. This theory says that learner should construct their own understanding and knowledge of the world through varied experiences. By reflecting on these experiences, students assimilate useful information and create personal knowledge" (Jha, 2009). Constructivism does not claim to have made earth shaking inventions in the area of education; it merely claims to provide a solid conceptual basis for some of things that, until now, inspired teachers had to do without theoretical foundation (Glaserfeld, 1995). According to Foston (1996) constructivist is fundamentally non-positivist and as such it stands on completely new ground often in materialism. Rather than behaviors or skills as the goal of instruction, concept development and deep understanding are the foci; rather than stages being the result of maturation, they are understood as constructivist of active learner reorganization.

Ministry of Human Resource Development and University Grants Commission have launched a lot of schemes for achieving qualitative education. National Curriculum Framework (2005) is an attempt to empower the quality of education from the school level. The road map of NCF suggested the inclusion of constructivist approach which will lead to better understanding of knowledge and creativity among the school students. In the constructivist perspective, learning is a process of the construction of knowledge. Learners actively construct their own knowledge by connecting new ideas to existing ideas on the basis of materials/activities presented to them. Constructivist approach does not lead to rote learning, instead it results in self learning among student along with constructing their own knowledge about the reality of the world. The role of the teacher is as a facilitator who gives guidance and helps the student in an indirect manner. Self learning among students is initiated by the help of the knowledge which is already present within them and that old knowledge becomes a tool for constructing new knowledge. Same idea is reflected by Buddha when he says "We are what we think. All that we are arises within our thoughts. With our thoughts, we make the world." quoted by (Prichard and Woollard, 2010).

Significance of the Study

In the annual report 2014-15 of MHRD, it was mentioned that education system is child-friendly and inclusive and teaching learning process should be constructivist

in nature. Every state has been urged to renew its own state curriculum in light of NCF 2005 recommendations, by bringing in cohesive changes in their curriculum, teaching learning material, pedagogy and assessment systems. Twenty three states so far have renewed their curriculum based on NCF 2005; ten states have followed the curriculum of NCERT. The present study is an attempt to explore the constructivist awareness among the research scholars of central university of Himachal Pradesh. Through this study the researcher can find out the current level of awareness in constructivism among the future teachers and researchers which will explore the importance of introducing the concept of process based education in higher education system.

Objective of the Study

The major objective of the present research study is:

- To find out the awareness of constructivism among the research scholars of the Central University of Himachal Pradesh (CUHP) with special reference to
 - A. Gender (Male/Female)
 - B. Discipline (Science/Humanities)
 - C. Age (Above 30 year/ Below 30 year)

Hypotheses of the Study

The hypothesis formulated for the investigation of the research study were

- There is no significant difference in the awareness of constructivism among the research scholars with respect to their Gender.
- There is no significant difference in the awareness of constructivism among the research scholars with respect to their Discipline.
- There is no significant difference in the awareness of constructivism among the research scholars with respect to their Age.

Methodology

The method used for study was descriptive research method in which survey was the technique employed. The sampling technique used for the study was purposive sampling technique which comes under the non-probability sampling. The total sample of the study includes forty two research scholars who were pursuing PhD in various disciplines from the Central University of Himachal Pradesh. The tool used for the study was a three point rating scale called constructivism awareness scale (CAI) prepared and validated by the researcher in consultation with experts. The maximum and minimum scores of the constructivism awareness scale ranges in between sixty and twenty. The collected data were analyzed using the online software usablestats.com to find out the t-value to derive valid conclusion.

Analysis of the Study

The data collected using the three point rating scale to explore the awareness of constructivism among the research scholars of the central university of Himachal Pradesh were analyzed and based on the analysis and discussions the following conclusions were arrived.

Table 1: Mean, SD & t-value of Research Scholars with Respect to Gender

Gender	Number	Mean	S.D.	t value
Male	28	51.96	5.29	1.32
Female	14	54.71	3.22	

Table (1) shows the mean scores obtained for the male and female research scholars regarding their awareness in constructivism as 51.96 and 54.71 respectively. The standard deviation scores for male and female research scholars are 5.29 and 3.22. The t value obtained was 1.32, which is not significant at 0.05 level. Accordingly the first hypothesis stated as there is no significant difference in the awareness of constructivism among the research scholars with respect to their gender was accepted which implies both of them have same level of awareness in the constructivism.

Table 2: Mean, SD & t-value of Research Scholars with Respect to Discipline

Category	Number	Mean	S.D.	t value
Humanities	29	52.86	5.46	1.36
Science	13	52.92	3.25	

Table (2) shows the mean scores obtained for the humanities and science stream research scholars regarding their awareness in constructivism as 52.86 and 52.92 respectively. The standard deviation scores for male and female research scholars are 5.46 and 3.25. The t value obtained was 1.36, which is not significant at 0.05 level. Accordingly the second hypothesis stated as there is no significant difference in the awareness of constructivism among the research scholars with respect to their discipline was accepted which implies research scholars from both the stream have same level of awareness in the constructivism.

Table 3: Mean, SD & t-value of research scholars with respect to age

Category	Number	Mean	S.D.	t value
Above 30 year	36	53.00	4.72	2.55
Below 30 year	06	52.16	5.94	

Table (3) shows the mean scores obtained for the research scholars having age above 30 year and below 30 year regarding their awareness in constructivism as 53.00 and 52.16 respectively. The standard deviation scores for male and female research scholars are 4.72 and 5.94. The t value obtained was 2.55, which is significant at 0.05 level. Accordingly the third hypothesis stated as there is no significant difference in the awareness of constructivism among the research scholars with respect to their age was rejected which implies research scholars having ages above 30 year are more aware in constructivism than those who are under the age of below 30 year old.

The graphical representation of the awareness of constructivism among the research scholars of CUHP with respect to their gender, discipline and age were shown below on the basis of their mean scores obtained on the awareness of constructivism.

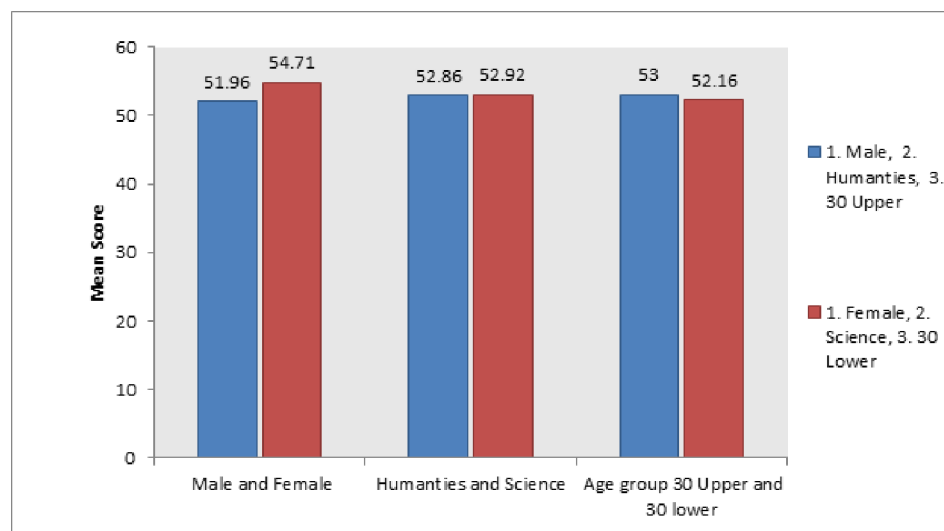


Figure 2: Graph Showing Constructivist Awareness of Sub-Sample

Findings and Discussions of the Study

All findings of the study revealed that regarding the awareness of constructivism among the research scholars of CUHP, all of them have high level of awareness and it was also found that there is no significant difference exists in the awareness of constructivism with respect to their gender and discipline. But in the case of age of the research scholars, those who belongs to the age category of above 30 years will have higher awareness in constructivism than that of those having age below 30 year old. These finding were supported by the following findings of the study done by Jubile (2007) on Effectiveness of Constructivist Approach on the Achievement and Problem Solving Ability in Science of VII Standard Students where constructivist approach found effective for both boys and girls in improving their achievement in science. Another study done by Harani (2008) on Effectiveness of Constructivist Based Approach for Teaching Mathematics at

Secondary Level also suggested that there is no significant difference between boys and girls in their achievement in mathematics among the experimental group after the intervention.

Conclusions of the Study

Based on the analysis, discussions and findings of the study the followings conclusions were derived. All the results shows that regarding the awareness of constructivism there is a high level of awareness among the research scholars. The findings of the study reflects that as the constructivism awareness is high among the research scholars, that will help them to engage their teaching and research according to the nature of the constructivism which will bring forth great fruits into the visionary goals of higher education including teaching, research and extension.

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