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University of Calcutta under the UGC Act)
COLLEGE OF TEACHER EDUCATION (CTE)
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Editorial

It is well known to those scholars to whom the question of controlling quality in educational research is of a great concern that education as a separate discipline of study did not find a place in Indian universities till 1917, when the Calcutta University Commission popularly known as Sadler Commission made a positive recommendation to facilitatea department of education with a professor and a reader in each university to uphold the methodical study of practical problems in the realm of education. As an outcome of the said recommendation endeavors had been made to initiate M.Ed. as well as M.A. in education in several Indian universities in the later years and before formal Ph.D. in education was pursued in the university departments, some sort of research was made mandatory for the partial fulfillment of those courses.In the recent years there has been a visible rush after publishing research articles in educational journals with an ISSN since the issuance of regulations by the UGC on minimum qualifications of teachers stipulating their appointment plus career advancement schemes which necessitate the research outputs to be published in peer reviewed journals. This newly designed guideline demands the scholars and the teachers in colleges and universities to be busy in undertaking research projects and writing research articles besides teaching, not only for adding scores to their names in a regular manner but also to explore new areas of knowledge for enhancing the process strengthening our nation in every aspect.

It is worth mentioning that our College has been able to bring out an annual Journal of Education named 'Sikshachintan' for the last seven years and the present Volume is the eighth one in succession. Likewise the last issues, the present one is furnished with research articles by persons well acclaimed in their own field at one hand and by new investigators on the other. The present editor only feels it to put on record that it would have been a very satisfying experience if the qualitative investigations especially the philosophical as well as the historical ones were well balancing in number compared to the empirical researches.

We on behalf of the erudite Editorial Board sincerely express our indebtedness to all the contributors for their exploratory and passionate efforts to various dimension

of education and convey our heartiest gratitude to the members of the advisory board for their valuable advices. We extend our deep sense of appreciation to the reviewers for their tiringand bold endeavors and also acknowledge the sincere dedication of the staff and the students of this institution.May this present volume build upand develop an academic commitment of our esteemed readers to the cause of education in general and teacher education in particular be our earnest prayer.

July 15, 2014

Swami Tattwasarananda

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A STRACT : Constructivism as a set of beliefs provides a model of cognition that leads directly to a ethod of teaching that, in turn, credits the student with the power to become an active learner. T hers' attitude towards constructivist approach in teaching has an effective value to increase teacher e ctiveness among school teachers. The present study was conducted to inquire the present attitude of s ol teachers of W.B. in advocating constructivist approach in their teaching strategy and its impact on t her effectiveness. CASST and PGTES were administered on 216 randomly selected school teachers f measuring their attitude towards constructivist approach & teacher effectiveness. The major findings v re observed that the teachers of W.B. possess a moderately positive attitude towards constructivist a proach in daily classroom teaching situation and location-wise and gender-wise the difference of this a itude is insignificant. Moreover, teachers' attitudes towards constructivist approach and teacher e fectiveness share a moderate positive correlation.

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Introduction

Modern theories of learning claim the construction of knowledge occurs as students build understanding in light of experiences occurring in the world. Experience can occur within the context of various pedagogic modes within a classroom setting; moreover, the development of deep conceptual understanding of content and the processes of science – as informed by constructivist models of learning – stress the active participation of students in the process of constructing knowledge. This can

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Attitude towards Constructivist Approach and Teacher Effectiveness: Perspective of Secondary School Teacher

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Abstract

Constructivism as a set of beliefs provides a model of cognition that leads directly to a method of teaching that, in turn, credits the student with the power to become an active learner. Teachers' attitude towards constructivist approach in teaching has an effective value to increase teacher effectiveness among school teachers. The present study was conducted to inquire the present attitude of school teachers of W.B. in advocating constructivist approach in their teaching strategy and its impact on teacher effectiveness. CASST and PGTES were administered on 216 randomly selected school teachers for measuring their attitude towards constructivist approach & teacher effectiveness. The major findings were observed that the teachers of W.B. possess a moderately positive attitude towards constructivist approach in daily classroom teaching situation and location-wise and gender-wise the difference of this attitude is insignificant. Moreover, teachers' attitudes towards constructivist approach and teacher effectiveness share a moderate positive correlation.

Keywords: *Constructivist Approach, Teachers' Attitude, Teacher Effectiveness, Secondary school teacher*

Introduction

Modern theories of learning claim the construction of knowledge occurs as students build understanding in light of experiences occurring in the world. Experience can occur within the context of various pedagogic modes within a classroom setting; moreover, the development of deep conceptual understanding of content and the processes of science – as informed by constructivist models of learning – stress the active participation of students in the process of constructing knowledge. This can occur when students are engaged in learning tasks which tacitly or explicitly make them aware of this construction with deference to prior knowledge structures. Allus & Bruce (2008), crucially mentioned that Knowledge was not separate from but rather embedded within experiences and interpreted by the learner. Knowledge then was about interpretation, and making meaning of the environment. In their words, "though we may more or less share one reality, each of us conceives of it in different ways based on our prior experiences, belief structures and perspective. From this view, interpretation constructivism can include different types of knowledge construction than rote memorization of factual knowledge or

procedures. The goal for the learner is to build, or re-invent knowledge" (p.92). According to Von Glasersfield (1995a) as cited in Allus & Bruce (2008), "Constructivism as a set of beliefs provides a model of cognition that leads directly to a method of teaching that, in turn, credits the student with the power to become an active learner. Teaching aims at enabling students to generate activities out of the understanding of why they should be performed and the explanation that they lead to desired results"(p.90)

Constructivism concentrates on learning how to think and understand. This learning is transferable. This situation gives students ownership (stake holder) what they learn, since learning is based on students' questions and explorations. Students in constructivist classrooms learn to question things and to apply their natural curiosity to the world. In a democratic teaching-learning environment teachers' role, their effectiveness and their attitude in the classroom to transmit knowledge is a crucial factor The principal investigator of Biological science curriculum studies (BSCS), Roger Bybee(?) developed an instructional model for constructivist, as cited in Ahmed (2009), which was called the 'Five Es' and were indicated as follows:

1. **Engage:** The student's first encounter and identity the instructional task.
2. **Explore:** Learning get directly involved with the phenomena and materials.
3. **Explain:** At this stage explanation is multidirectional.
4. **Elaborate:** Students apply their understanding to the world around them, which they had learned in the past.
5. **Evaluate:** This is an ongoing diagnostic process.

So, in a constructivist pedagogy learning would take place in authentic and real- world environments that should involve social negotiation and mediation (pp.85-86).

In a democratic teaching-learning environment teachers' role, their effectiveness and their attitude in the classroom to transmit knowledge is a crucial factor. The teacher effectiveness is directly correlated to specific teaching strategy (Pigge and Marso, 1990) and it has been equalized to student achievement (Stronge, 2010, as cited in Munoz, Prather & Stronge, 2011). The attitude of teachers determines his behavior of teaching and guides him to adopt constructivist approach as teaching strategy which might help in students' achievement and make the sense of positive influence of teacher effectiveness. Thus the teachers' attitude towards constructivist approach and its relationship with teacher effectiveness was felt necessary to inquire about in Indian perspective especially in West Bengal.

Objectives of the study

Following major objectives were identified for the present study:

1. To study the attitude towards constructivist approach of the Secondary school teachers in teaching-learning process under different categorical variables.

2. To compare the teachers' attitude towards constructivist approach under different categorical variables like gender, location of school.

3. To compare the teachers' effectiveness under different categorical variables like gender, location of school.

4. To study the relationship between teachers' attitude towards constructivist approach and teacher effectiveness.

Hypotheses

H_o1: There would be no significant difference in attitude towards constructivist approach between the teachers of rural school and urban school.
H_o2: There would be no significant difference in attitude towards constructivist approach between the male and female teachers.
H_o3: There would be no significant difference in teacher effectiveness between the teachers of rural school and urban school.
H_o4: There would be no significant difference in teacher effectiveness between the male teachers and female teachers.
H_o5: There would be no significant relationship between teachers' attitude towards constructivist approach and teacher effectiveness.

Methodology of the study

Sample frame for teachers:

All the teachers of secondary schools in West Bengal were the population in the study. 216 school teachers of secondary level schools were selected randomly from four districts of West Bengal as sample for this study.

Table- 1.1. Sample Frame_locality wise

URBAN. (N=132)		RURAL. (N=84)		TOTAL
Male	Female	Male	Female	216
90	42	45	39	

Table- 1.2. Sample Frame_gender wise

MALE (N= 135)		FEMALE. (N=81)		TOTAL
urban	Rural	urban	Rural	216
90	45	42	39	

Variables:

A) Major

i) Teacher attitude towards constructivist approach

ii) Teacher Effectiveness

B) Categorical

i) Location of School

ii) Gender

Tools of the study:

Present researchers had used two types of tools; one was self made attitude scale to measure the teacher's attitude towards constructivist approach (CASST). Second scale was teacher effectiveness scale (PGTES) a standardized scale which was constructed and validated by Dr. Shallu Puri, Dept. of Education, Punjab Unversity and Dr. S. C. Gakhar, Dept. of Education, Punjab Unversity.

Description of Constructivist Attitude Scale for School Teacher (CASST)

Scale was consisted of 28 items; Content validity was judged by the expert rating of items by two experts. The inter-rating agreement model was used (Gregory, 2005) to see reliability of the raters. The coefficient of content validity was found 0.92. The reliability of the scale was computed by using Cronbach's Alpha and was found 0.826.The scale has a good alpha value and it was acceptable. The categories of responses were 'strongly agree', 'agree', 'undecided', 'disagree', 'strongly disagree' and '5', '4', '3', '2', '1' were the respective scores awarded for the responses. Some items were negative in nature and the scoring was done in reverse order i.e. '1', '2', '3', 4'', '5'.

Description of Post Graduate Teacher Effectiveness Scale (PGTES)

Validity-

The scale was validated against the criterion of "Content Validity". The content validity is concerned with the adequacy of sampling of a specified universe of content. To determine content validity, the scale items and a list of outcomes were given to the panel consisting of seven experts. The panel was asked to identify which test items corresponded to which outcomes. The experts agreed 92% with the investigator on the assignment of scale items. This concurrence was taken as evidence of content validity.

Reliability-

The test-retest reliability study of the scale was conducted. The coefficient of correlation between two tests was found to be 0.76 and is significant at 0.01 level of significance and testifies the scale to be a reliable one.

Scoring-

Award scores as following: Strongly Agree - 5, Agree - 4, undecided - 3, Disagree - 2 and Strongly Disagree - 1. Total score of an individual on 68 items may range from 68 to 340.

Procedure of Data collection

For conducting the research, data had been collected in one phase. 22 schools were selected conveniently from the district of North 24 Parganas, Hooghly, South 24 parganas and Howrah. Three scales were administered to 216 teachers from those schools chosen under study and asked to response according to their own belief and thought without any consultation with another teacher and to submit the responded scale by putting it into an envelope to maintain confidentiality.

Analysis and interpretation of data :

The results of the study are presented in the following tables

Table 1.3: Test of Normality of data-

Scale	Shapiro-Wilk		
	Statistic	df	Sig.
CASST	.992	216	.242
PGTES	.990	216	.155

CASST= Constructivist Attitude Scale for School Teacher, PGTES= Post Graduate Teacher Effectiveness Scale.

If the sample size is less than 2000 then through 'Shapiro-Wilk test' the normality of data can be tested (http://en.wikipedia.org/wiki/Shapiro%E2%80%93Wilk_test). The table no. 1.3 shows that the p value of Shapiro-Wilk test (sample size <2000) in case of Attitude towards constructivist approach is 0.242, (p>.05), in case of Teacher effectiveness p = 0.155, (p>.05). Hence data are normally distributed in both cases and there is an ample chance to test the hypotheses with parametric statistics.

Objective wise Analysis of Data

Objective no.1

O_1: To study the attitude towards constructivist approach of the Secondary school teachers in teaching-learning process under different categorical variables.

Table: 1.4:Group Statistics of CASST_location of school			
Location Of School	Mean	N	Std. Deviation
Urban	101.2348	132	8.82905
Rural	102.6429	84	8.43493
Total	101.7824	216	8.68540

(CASST = Constructivist Attitude Scale for School Teacher)

Table: 1.5: Group Statistics of CASST_gender				
	Gender	N	Mean	Std. Deviation
Attitude Towards Constructivist Approach	Male	135	101.7630	8.79128
	Female	81	101.8148	8.56024
Total		216	101.78	8.67

While estimating the mean value of CASST from the data that collected from the school teachers at location wise of the schools, it was found 101.78 (table: 1.4) and in case of gender wise the CASST mean value is 101.78 (table: 1.5). In CASST scale a respondent can score 84 to 140. So, it can be said that, schools teachers of West Bengal posses a moderate positive attitude towards constructivist approach in their teaching situation.

Objective no.2

O_2: To compare the teachers' attitude towards constructivist approach under different categorical variables like gender, location of school.

To fulfill this objective, two null hypotheses were formulated and tested which were as follows:

H_o1: There would be no significant difference in attitude towards constructivist approach between the teachers of rural school and urban school.

H_o2: There would be no significant difference in attitude towards constructivist approach between the male and female teachers.

Testing of Null Hypotheses:

To test the Ho1 and H_o2 descriptive and inferential statistics were computed. The results are given below:

Testing of Ho1:

Groups: Teachers of urban schools and rural schools

Table- 1.6: Group Statistics of CASST_location of school

	Location of school	N	Mean	Std. Deviation	Std. Error Mean
Attitude Towards Constructivist Approach	Urban	132	101.2348	8.82905	.76847
	Rural	84	102.6429	8.43493	.92033

Table- 1.7: Independent samples test of CASST_urban vs. rural

Sub-scale	Levene's Test for Equality of Variances			t- test for equality of means		
CASST	Equal variances assumed	F	Sig.	t	df	Sig. (2 tailed)
		1.135	.288	-1.162**	214	.246
(**not significant at 0.05 level of significance)						

Interpretation:-

From the analyses in Table 1.7 it is seen that in case of Levene's Test for equality of variances the p value is 0.288 (p>.05) so, equal variances can be assumed. Table 1.7 also shows that in case of teachers attitude towards Constructivist Approach between urban and rural schools the calculated $\mathbf{t_{(214)}}$ value is -1.162 and 'p' value is 0.246 (p> .05). Hence, t is not significant at 0.05 level. So, $\mathbf{H_o1}$ is not rejected and it can be safely said that urban teachers are not significantly different from the rural teachers in respect to their attitude towards Constructivist Approach in teaching situation.

Testing of Ho2:

Groups: Male and female teacher

Table- 1.8: Group Statistics of CASST_gender

Sub- scale	Gender	N	Mean	Std. Deviation	Std. Error Mean
CASST	Male	135	101.7630	8.79128	.75663
	Female	81	101.8148	8.56024	.95114

Table- 1.9: Independent samples test of CASST_male vs. female						
Sub-scale	Levene's Test for Equality of Variances			t- test for equality of means		
CASST	Equal variances assumed	F	Sig.	t	df	Sig. (2 tailed)
		0.002	0.969	-.042**	214	0.966

(**not significant at 0.05 level of significance)

Interpretation:-

It is seen from the analyses of Table 1.9 that in case of Levene's Test for equality of variances the p value is 0.969 (p>.05) so, equal variances can be assumed. Table 1.9 also shows that in case of teachers attitude towards Constructivist approach between male and female teachers the calculated $\mathbf{t_{(214)}}$ value is 0.042 and 'p' value is 0.966 (p> .05). Hence, t is not significant at 0.05 level and $\mathbf{H_o2}$ is not rejected. So, male teachers are not significantly different from the female teachers in respect to their attitude towards Constructivist Approach.

Objective no.3

$\mathbf{O_3}$: To compare the teachers' effectiveness under different categorical variables like gender, location of school.

To fulfill this objective, two null hypotheses were formulated and tested which were as follows:

H_o3: There would be no significant difference in teacher effectiveness between the teachers of rural school and urban school.

H_o4: There would no significant difference in teacher effectiveness between the male teachers and female teachers.

Testing of Ho3 and Ho4:

To test the Ho3 and H_o4 descriptive and inferential statistics were computed. The results are given below:

Testing of Ho3:

Groups: Teachers of urban schools and rural schools

Table 1.10: Group Statistics of PGTES_location of school					
Sub- scale	Location of school	N	Mean	Std. Deviation	Std. Error Mean
PGTES	Urban	132	291.1894	24.30095	2.11513
	Rural	84	288.9643	20.89068	2.27936

Table- 1.11: Independent samples test_PGTES_urban vs. rural						
Sub-scale	Levene's Test for Equality of Variances			t- test for equality of means		
PGTES	Equal variances assumed	F	Sig.	t	df	Sig. (2 tailed)
		2.652	0.105	0.692**	214	0.490

(**not significant at 0.05 level of significance)

Interpretation:-

While to compare the urban and rural teachers' teaching effectiveness, it is seen from the analyses of Table 1.11 that in case of Levene's test for equality of variances the p value is 0.105 (p>.05) so, homogeneous variances can be assumed. Table 1.11 also shows that in case teacher effectiveness between rural and urban teachers the calculated $\mathbf{t_{(214)}}$ value is 0.692 and 'p' value is 0.490 (p> .05). Hence, t is not significant at 0.05 level and $\mathbf{H_o3}$ is not rejected. So, urban teachers are not significantly different from the rural teachers in respect to teacher effectiveness.

Testing of Ho4:

Groups: Male and female teacher

Table- 1.12: Group Statistics of PGTES_gender					
Sub- scale	Gender	N	Mean	Std. Deviation	Std. Error Mean
PGTES	Male	135	291.2148	23.37794	2.01205
	Female	81	288.8395	22.44909	2.49434

Table- 1.13: Independent samples test of PGTES _male vs. female						
Sub-scale	Levene's Test for Equality of Variances			t- test for equality of means		
PGTES	Equal variances assumed	F	Sig.	t	df	Sig. (2 tailed)
		0.537	0.465	0.734**	214	0.464

(**not significant at 0.05 level of significance)

Interpretation:-

It is seen from the analyses of Table 1.13 that in case of Levene's test for equality of variances the p value is 0.465 (p>.05) so, homogeneous variances can be assumed. Table1.13 shows that in case of male and female teachers' teacher effectiveness the calculated $\mathbf{t_{(214)}}$ value is 0.734 and 'p' value is 0.464 (p> .05). Hence, t is not significant at 0.05 level and $\mathbf{H_o4}$ is not rejected. So, male teachers are not significantly different from the female teachers in relation to teacher effectiveness.

Objective no.4

O_4: To study the relationship between teachers' attitude towards constructivist approach and teacher effectiveness.

To fulfill this objective, one null hypothesis was formulated and tested which was as follows:

H_o5: There would be no significant relationship between teachers' attitude towards constructivist approach and teacher effectiveness.

Testing of Ho5:

Groups: Attitude towards constructivist approach and Teacher effectiveness

Table 1.14: Correlations matrix of CASST & PGTES

		CASST	PGTES
CASST	Pearson Correlation	1	.454*
	Sig. (2-tailed)		.000
	N	216	216
PGTES	Pearson Correlation	.454*	1
	Sig. (2-tailed)	.000	
	N	216	216

* Correlation is significant at the 0.01 level (2-tailed).

(CASST = Constructivist Attitude Scale for School Teacher, PGTES= Post Graduate Teacher Effectiveness Scale).

Interpretation:-

The analysis in table 1.14 shows that, correlation coefficient i.e. 'r' between score of CASST and PGTES is 0.454 and p value is 0.000($p<0.01$) which is significant at the 0.01 level. Hence, $\mathbf{H_0 5}$ is rejected. So, it can be said that there exists a significant positive correlation between teachers' attitude towards constructivist approach and teacher effectiveness to a moderate extent.

Discussion:

Within the realm of learning theory, the constructivist movement probably has the most understandable title. As the name suggests, the theory draws a picture of knowledge and understanding being slowly constructed. The building metaphor continues, as we will see, with the use of other terms, such as "scaffolding", which are used to illustrate the nature of the progress of learning and the support systems which may enhance the process. However, it is more than a general building of knowledge and understanding that is put forward; the constructivist model of learning suggests that constructive learning is an individual matter. Each of us will build an idiosyncratic version of reality based partly on identical experiences but shaped by individual experience and, importantly, upon an individual's prior knowledge, understanding and experience Pritchard and Woollard (2010).

While to search and compare the present scenario of constructivist approach that adapted by school teacher of West Bengal (W.B.) under different categorical variables it has been found from this study that teachers' attitude towards constructivist approach in teaching is moderately positive. Thus, the schools teachers in urban setting are not significantly different from rural school of W.B. though, rural school teachers are slightly better than urban schools' teacher. Uredi (2012) studied on the effect of classroom teachers' attitudes toward constructivist approach. This study aimed to determine the attitudes of classroom teachers towards constructivist approach and to analyze the effect of their attitudes towards constructivist approach on their level of creating a constructivist learning environment. At the end of the research, it was determined according to the views of most classroom teachers that attitudes towards the constructivist approach were positive; they created constructivist learning environment at medium level; that result support the present result of the study.

So, it may be concluded that, the location of school or school infrastructural facilities are not the main factors rather teachers' own aspiration and teaching effectiveness is the crucial factors for adopting constructivist approach in their daily teaching process in school level education system. In the same way, the present study also indicates that gender does not play any crucial role in construction of teachers' attitude towards constructivist approach in teaching process. Jadallah (1996) found that the pre-service teachers engaged in reflection (constructivist process) were more mindful of their teacher mediation in their school settings and more insightful about their decisions than the pre-service teachers who were not engaged in the reflective process that result support the findings of present study.

The present study aging implies that teacher effectiveness is equal in nature irrespective of location of schools and gender that means there is no statistical significant difference between urban and rural teacher as well as male and female teachers in school level. But insignificantly urban teachers teaching effectiveness is slightly better than rural teachers' proficiency in teaching and male teachers' teaching effectiveness is also insignificantly higher than female teachers' teaching strategies and effectiveness.

This study again shows a moderate positive correlation between teacher effectiveness and teachers' attitude towards constructivist approach in teaching in school situation. That means there remains a possibility that if the effectiveness of school teacher is increased then the positive attitude towards constructivist approach in teaching will be increased and vice-versa.

Conclusion:

"Education is the manifestation of the perfection already in man"

- Swami Vivekananda.

The idea of constructivism, though the term may seem to be completely new to Indian minds, was not unknown in India from time immemorial, of course if we keep many references to Upanishadic pedagogy in mind. Swami Vivekananda echoed almost the same idea when he defined education as a process of manifestation of the perfection already in human mind.

Professor Gardner, almost two decades back foresaw that there have been ongoing calls for constructivist classroom based on the constructivist views of learning during the past decade (Gardner, 1991). The reason of such advocacy of the constructivist approach was proved to be showing a better ways of teaching and learning in the West and the researchers as well as teachers noted persistent shortfalls in learners' understanding and of passive way of learning across all ages and grades in the traditional paradigm of teaching.

The most interesting point amongst the above findings is the use of the term 'moderately' which stands for the antonym of 'extremely' which shows that the teachers though being theoretically well adept in constructivism are yet to take firm position for translating constructivist vision into practice in real classroom situation. Hence, in conclusion it may be suggested that teachers, educators and researchers are to be jointly and actively engaged and put hands together for exploring modus operandi so that constructivist approach can be made a real success in teaching-learning for maximizing the learning outcomes of the learners.

Limitations of the study:

No study is flawless. This study has its limitations. The present study had some limitations which were as follows:

i. For reviewing the implication of constructivist approach in school, the books and journals were consulted as far as possible in respect to its availability.
ii. The selection of schools for this study was not selected only from four districts.
iii. The schools were selected mainly from southern part of West Bengal.
iv. The number of schools teachers might be increased by taking more schools under the study.
v. The sample of this study was selected only from the Govt. aided Bengali medium schools of WBBSE. It would be much better if the sample could be selected from Govt. schools and English medium schools of WBBSE also.
vi. The data collection through CASST, PGTES was self reported by teachers at one point of time. Triangulations were not done to estimate the consistency of teachers' self reported data.

References:

Ahmed, J. (2009). *Teaching of Biological sciences.* New Delhi, PHI Learning private Limited.

Anderson, L. W. (1991). Increasing Teacher Effectiveness. Paris: UNESCO, International Institute for Educational Planning.

Allus, W. M.and Shore, M. B. (2008). *Inquiry in Education, vol. 1,* America: Lawrence Erlbaum Association. pp. 24-33

Boddy N, Watson K, Aubusson P (2003). *A trial of the five es: A referent model for constructivist Teaching and Learning.* Res. Sci. Educ. 33: 27–42.
Flynn Pat, Mesbov D., Vermette J. Paul, Smith R. Michael (2004). *Applying standards-based Constructivism: a two- step guide for motivating middle and high school students*. Larchmont (U.S.), Eye on education publication

Garrett E. Henry (2011). *Statistics in Psychology and Education.* Delhi: Paragon International Publisher.

Gardner, H. (1991). *The Unschooled Mind: How Children Think and How School Should Teach*. New York: Basic Books.

Guha A. and Ghosh S. (2012*). Classroom Management: Attitude and Belief of Secondary School Teachers*. Sikshachintan : A Journal of Education, vol. 6, 2012, ISSN No. 0973-5461. pp.175-182

Jadallah, E. (1996). Reflective theory and practice: A constructist process for curriculum and instructional decsions. Action in Teacher Education, 18(2), 73-85.

Kothari C.R. and Garg, G. (2014). *Research Methodology : Methods and Techniques.*3rd edition. Delhi.:New Age International Publishers.

Kumar, R. (2013). Research Methodology : a step-by-step for beginners. 3rd edition. Delhi, SAGE.

Mangal, S.K. (2011). *Essential Educational Psychology.* Fifth printing, New Delhi, PHI Learning private ltd.

Munoz, M., Prather, J. R., & Stronge, J. H. (2011). Exploring Teacher Effectiveness Using Hierarchical Linear models: Student- and Classroom-Level Predictors and Cross-Year Stability in Elementary School Reading . *Planning and Changing* ,Vol. 42, No. 3/4, 2011, pp. 241–273

Murphy, E. (1997). Characteristics of Constructivist Teaching and Learning. Constructivism: from Philosophy to Practice. New York: Guilford Press.

National Curriculum Framework. (2005). New Delhi, NCERT Publication.

Pigge, F.L. & Marso, R.N. (1990). A longitudinal assessment of the affective impact of pre-service training on prospective teachers. (ERIC Document Reproduction Services No. ED 328515). Journal of Experimental Education, 58 (4), 283-289.

Pritchard A., Woollard J. (2010). *Psychology for the Classroom: Constructivism and Social Learning.* New York, Routledge Publication.

Puri, S. & Gakhar, S. C. (2010). *Teacher Effectiveness Scale (PGTES).* National Psychological Corporation. Agra, India.

Richardson,V., & Ratzlaff, C.(2001). Teachers' *perceptions of the moral dimensions of their classrooms,* Seattle, WA : American Educational Research Association.

Richardson,V.(Ed.), (1997), *Constructivist teacher education: Building a world of new understandings* .London: Falmer.

Travers, Robert M.W. (1958). *An introduction to Educational research*, New York: The Macmillian Company.

Tobias Sigmund (2010). *An eclectic appraisal of the success or failure of Constructivist instruction.* In Sigmund Tobias, & Thomas M. Duffy (Eds.), *Constructivist Instruction: Success or failure* (pp.335-350). New York, Routledge.

Ured Lutfi (2012).*The effect of classroom teachers' attitudes toward constructivist approach on their level of establishing a constructivist learning environment: A case of Mersin.* Mersin University, Educational Faculty, 33169 Mersin, Turkey.

Von Glasersfeld, E. (1995a). *Learning as a constructive activity.* In C. Janvier (Ed.), *Problems of representation in the teaching and learning of mathematics* (pp. 87-90). Hillsdale, NJ: Erlbaum.

Vivekananda, Swami (1991). *The Complete Works of Swami Vivekananda*. Vol.1. Kolkata. Advaita Ashrama.

http://www-01.ibm.com/software/analytics/spss/products/statistics/
http://en.wikipedia.org/wiki/Shapiro%E2%80%93Wilk_test
http://www.sedl.org/scimath/compass/v01n03/construct.html
http://www.hanoverresearch.com/wp-content/uploads/2012/05/Effectiveness-of-Co-Teaching-Membership.pdf

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