



---

**A STUDY OF CONSTRUCTIVIST CLASSROOMS AND REFLECTIVE THINKING LEVELS OF SECONDARY SCHOOL STUDENTS OF JIND**

**Dr Kuldeep Singh Yadav**

Principal, Haryana College of Education

Kinana, Jind, Haryana

---

**Abstract**

The shift in the recent years from teacher-centred to learner-centred learning has made constructivism inevitable. The focus of constructivist pedagogy is to make the learners as 'self-learners' and thinking individuals. The present paper determines the levels of reflective thinking among secondary school students. Sample of the study are secondary school students of a government and a private schools of Jind having continuous and comprehensive evaluation system. This system evaluation was a move by government agencies in order to support the constructivist pedagogy. Tool employed in the study is Reflective Thinking Scale developed by the investigator. Findings of the study indicate that there is no significant difference between the reflective thinking levels of students of government and private schools. It was concluded that along with CCE, constructivist pedagogy was followed in both the schools. Thus the paper focused on the need to enhance reflective thinking among students as it would be of great help in the move towards the constructivist classrooms.

**Key Words:** Constructivist classroom, Reflective Thinking

**Introduction**

Education enables all round development of the individual. 'Creative spirit' and 'generous joy' is the key in childhood both of which can be destroyed by an unthinking adult world (Rabindranath Tagore in his essay 'Civilization and Progress'). The inquisitiveness in children is sometimes shunned by adults. Approach towards convergent thinking and so called objectivity in responding has restrained the learners to be creative and possess divergent thinking. The solution to this is constructivism which has been focused time and again by NCERT, government authorities, teacher education institutions, etc. 'Activity is the heart of the child's attempt to make sense of the world around him/her. Therefore, every resource must be deployed to enable children to express themselves, handle objects, explore their natural and social milieu, and to grow up healthy if children's classroom experiences are to be organised in a manner that permits them to construct knowledge.' (National Curriculum Framework, 2005) When there is construction of knowledge, there is a sense of 'ownership of learning' that gives confidence to learners and makes their learning long-lasting.

No more is prevalent the notion that 'child is a blank slate' rather child constructs knowledge based on his previous experiences. Thus there is focus on activity-centred learning and child-centred learning.

The concept of Continuous and comprehensive evaluation started recently in India. The learner is assessed on scholastic as well as co-scholastic areas throughout the year. Thus there is no more reliance on the three hour final examination rather evaluation of the learner is done in totality under the new system. NCF 2005 also stated regarding the evaluation system that the typology of the

---

question paper be made such that reasoning and creative abilities replace memorisation and examinations be integrated with classroom life by encouraging transparency and internal assessment. New kind of evaluation system that has been successfully implemented in the CBSE schools of Delhi is an attempt towards implementing constructivism. This is because the comprehensive evaluation that is continuous in nature and focuses on questions discouraging rote-memorization in examinations makes it imperative that methodology in consonance with the new evaluation system be followed in teaching-learning situations.

### **Reflective Thinking and Constructivism**

‘Reflective thinking is an inquiry approach that emphasizes on ethic of care, a constructivist approach to teaching and creative problem-solving’. (Henderson, 2001) Constructivist approach to teaching thus entails reflective thinking. Active construction of knowledge makes the learners think and assimilate or accommodate new information into their existing schema. This entire cognitive process does not become possible without self-reflection and being engaged in reflective thinking. The space given to learners, flexibility, autonomy and trustworthiness shown in their capacity to learn in constructivism is aided by self-reflection.

Learning process often begins with an action ‘experience’ followed by an attempt to understand this action within a specific context ‘reflection’. The third step ‘abstraction’ involved an increased level of understanding of the general principles of experience and finally ‘experimentation’ which leads to new actions being taken on similar situations based on what has been learnt. This experiential learning cycle should be conceptualized as a continuous spiral rather than a closed circle. ( Kolb and Fry, 1975)

### **Rationale**

With the advancement of technology, learners need to know ‘how to learn’. Constructivism is a move to make the students as ‘self-learners’. They can be self-learners if they reflect on their experiences, on the activities done in school as well as construct new knowledge. The study is an attempt to determine the reflective thinking levels among secondary school students of government and private schools that would provide the present state of the schools whether they are moving towards constructivism. This would also promote reflective thinking atmosphere in schools.

### **Objectives**

1. to find out the reflective thinking levels of students studying in government school of Jind
2. to find out the reflective thinking levels of students studying in private school of Jind
3. to study the significance of the mean difference of scores of reflective thinking level of students studying in government and private schools of Jind

### **Hypothesis**

- There is no significant difference between the mean scores of reflective thinking levels of students studying in government and private school of Jind

### **Method**

A pilot study was conducted using descriptive analytical method of educational research. Descriptive method discovers analyses and interprets what exists at present. The objective of the pilot study was to find out the level of students’ reflective thinking as part of cognitive functioning.

---

**Sample**

The pilot study was conducted on two schools only. The sample consisted of 100 students of X class each of a government school and a private school in Jind. Thus the sample size was 200 students of X class at secondary stage.

**Tool**

A Reflective Thinking Scale (RTS) for measuring the levels of reflective thinking of the secondary school students was constructed by the investigator. RTS is a four point scale having 30 items. It is a power tool to be finished in 30 minutes. Its reliability coefficient of correlation between test-retest is 0.82. Validity of the RTS was established by experts and thus it has content validity.

**Analysis**

The data collected for the study has been analysed and interpreted in pursuance of the objectives of the study as follows.

1. To find out the Reflective thinking levels of students studying in a government and private schools of Jind

**Table 1 Level of Reflective Thinking**

	N	Reflective Thinking Scores	
		Mean	SD
Private Schools	100	58	0.74
Government Schools	100	46	0.95

From the above table depicting the Mean and Standard Deviation of the reflective thinking scores of the government and private school students, it is inferred that due to large gap between mean and the standard deviation from the mean, reflective thinking scores deviate more from the average reflective thinking score. The mean reflective thinking score is 58 of the private school students and 46 of the government school students. The mean reflective thinking score of private school students is greater than the mean reflective thinking score of the government school students. Also the deviation of reflective thinking scores of the private school students from the mean is less as compared to the deviation of reflective thinking scores of government school students from the mean.

2. To study the mean difference of scores of reflective thinking level of students studying in government and private school of Jind

A null hypothesis was formulated stating there is no significant difference between the reflective thinking of students studying in government and private school of Jind.

**Table 2 t-values of the mean scores of reflective thinking level of students in government and private schools**

Group	N	Mean	S.D.	df	t-value
Government school students	100	46	0.95	98	0.36 NS
Private school students	100	58	0.74	98	

The critical t-value is not significant at both 0.01 and 0.05 levels of significance and thus the null hypothesis (H1) that there is no significant difference between the mean scores of reflective thinking studying in government and private schools is accepted.

### Interpretation

From the study it was found that there was no significant difference between mean scores of reflective thinking of students in government and private schools. Government and private schools have similar levels of reflective thinking students.

This is because of the sample selected by the investigator. The schools having high learning achievement were selected. Both schools are the top ranked schools where the exceptional and the gifted students study who think reflectively. This led to the results of both the government and private students having similar levels of reflective thinking.

### Conclusion

Hence it is concluded from the study that reflective thinking is an aid to constructivism, which is the need of the hour. Reflective thinking should be promoted in teaching-learning situation so as to make students as self-learners. When students know 'how to learn' and become self-learners by following constructivist pedagogies and reflective thinking practices, it would lead to development of the nation.

### References

1. NCERT (2005) National Curriculum Framework, NCERT, New Delhi
2. NCERT (2005) Teacher Education for Curriculum Renewal, NCF, NCERT, New Delhi
3. Johns (2009) Becoming a reflective practitioner (3<sup>rd</sup> ed.). Blackwell, Oxford.