Practices of Constructivist Pedagogy at Elementary School Level

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Abstract: *This paper has one objective to study the practices of constructivist pedagogy of elementary school teachers with reference to their location. By taking into consideration to one variable the researcher used case study method where she randomly selected 4 Government Elementary Schools (two schools from Tigiria Block& 2 schools from Athgarh Block) of Athgarh sub division as unit of the study and Eight Government Elementary School Teachers as Case of the study (2 teachers teaching from each school) purposively and 60 students (15 from each school) selected randomly for Focus Group Discussion where as Observation schedule was used for observing the practices in the classroom situation and found that the teachers from Elementary School of Athgarh Block practicing different practices of constructivist pedagogy frequently than the teachers of Tigiria Elementary School.*

Keywords: Pedagogy, Constructivist pedagogy, Elementary School Teachers, pedagogical practices, Location

1. Introduction

Constructivism is best understood in terms of how individuals use information, resources, and help from others to build and improve their mental models and their problem - solving strategies (Woolfolk, 2007). Construction indicates that each learner individually and socially constructs meaning as he/she learns (NCF, 2005). Constructivist method enhances the academic achievement and problem solving ability of the pupils (Pandey & Ameta, 2017); it is more effective than traditional teaching (Kim, 2005).

Nayak (2017) found constructivist learning approach can help them to understand, integrate and clarify mathematical concept and also enhance their interest to participate in group in constructivist classroom. The Education Commission (1966) emphasized that "intrinsic and continuous efforts are necessary to raise the economic, social and professional status of teachers and to attract talented young persons into the profession. In teaching learning situation, a teacher is encouraging, supportive and humane facilitator to enable learners to discover their (students) talents when there is satisfaction behind the teaching profession.

Constructivist pedagogical approaches encouraging and accepting student autonomy, initiation, and leadership; emphasizing student thinking to drive lessons and adapting content and instructional strategy based on student responses; asking students to elaborate on their responses; encouraging students to interact, both with the teacher and with one another; asking thoughtful, open - ended questions; encouraging students to reflection experiences and predict future outcomes; asking students to articulate their theories before requiring them to present understanding of the concepts; and looking for students' alternative conceptions and designing lessons to address misconceptions (**Lew,** 2010).

It was found from the reviews that Well - selected and related video material could enhance student knowledge (Koto, 2020); improving student's mastery of content at the higher order levels of cognition (**Adak, 2017**). Different online learning apps can be used for online pedagogy and for live communication (Basilaia & Kvavadze, 2020). A significant difference in pedagogical content knowledge was found among science teachers having B. Sc, B. Ed and M. Sc, B. Ed and having varied length of experience (Bharati and Mohalik'2014). New teaching practices in teacher education influenced students learning (Sherdian, 2016). Lack of focus, de motivation and limited availability of space at home, family distractions, and multiple assignments during pandemic (**Sultana, Rastogi & Tabassum, 2022**); The absence of the digital infrastructure, lack of pedagogical and technological knowledge and understanding of students development remained the challenges of 21st century learning in the classrooms (Sumardi., Rohman, & Wahyudiati, 2020). Constructivist pedagogical Practices are an essential aspect of effective teaching and learning in which a teacher meets learners at the point of their needs regardless of variation of their backgrounds. In order for effective learning to take place, teachers need to employ practices that evoke learners' participation in the teaching - learning transaction. In the present scenario where emphasis is given on practices of constructivist pedagogy in the teaching learning process, there is a need to assess the practices of constructivist pedagogy by the teachers at different levels of education and whether the objectives of constructivist pedagogy are fulfilled, whether experience has any effect on adopting constructivist pedagogical practices. Hence question arises that considering to present scenario of teaching learning process in our country particularly in Odisha which need to be found out. A research questions which strike to be studied is as follows: How the location do affects the practices of constructivist pedagogy in classroom teaching of elementary school teachers?

Objective of the study
To study the practices of constructivist pedagogy of elementary school teachers with reference to their location.

2. Methodology

Considering to the research questions and objectives adopted **case study method** to understand and define the Practices of Constructivist Pedagogy by Elementary School Teachers in general and to ascertain practices of constructivist Pedagogy of Elementary School Teachers in relation to their location. **Case study** is the intensive study of a phenomenon, but it gives subjective information rather than objective. It gives a detailed knowledge about the phenomena and not able to generalize beyond the knowledge. "**Case study method** is a method of exploring and analyzing the life of a social unit -

be that unit a person, a family, institution, culture group, or even an entire community" (Singh, 2006). Here the investigator randomly selected 4 Government Elementary Schools (two schools from Tigiria Block& 2 schools from Athgarh Block) of Athgarh sub division as unit of the study. The investigator also selected **Eight Government Elementary School Teachers as Case of the study** (2 teachers teaching from each school) purposively. From these 4 schools 60 students (15 from each school) selected randomly for Focus Group Discussion. Observation schedule was use for observing the practices in the classroom situation.

Details of the Case and Case Unit

No of Blocks in Athgarh Sub Division	Selected Blocks for the Study	No of schools selected as unit of study	No of Teachers as Case	No of students selected from class VI and VII
4	Athgarh Block Tigiria Block	1) Kantol Nodal U. P School (Urban area)	T1, T2	15 (7+8)
		2) Rasarasikapur U. G. U. P School	T3, T4	15 (7+8)
		Urban area		
		3) Gopinathpur U. G. M. E School (Rural Area)	T5, T6	15 (7+8)
		4) Nuapatna U. P School (Rural Area)	T7, T8	15 (7+8)

Procedures of Data Collection

For getting evidence or information, the investigator collected data from respondent (Teachers & students) of elementary schools to know about the practices of constructivist pedagogy. The Investigator personally visited the selected site with Interview Schedule, Focus group discussion tool and Rating Scale to observe and verify the classroom teaching practices. The investigator visited four schools of Tigiria and Athgarhblock under Athgarh subdivision of Cuttack district then she consulted with the Head of the each school for giving permission to collect the data from the teachers and students of the school and also for allowing to sit in classroom while the teachers were deliberating their lesson. The investigator in consultation with the Head interviewed two teachers from each school who were teaching in class VI andVII. In this process the investigator collected data from teachers and students of four different elementary schools.

Procedure of Data Analysis

Considering to the objectives of the study the investigator analyzed the data after a careful organization and presentation. In this study, the investigator organized the data in a proper way to carry out the task of analysis. Data may be organized in many different ways, depending on the research question and the method. Here the investigator followed Qualitative approaches for the analysis of the collected data. For the purpose, the investigator used thick description to analyse data to know about the Practices of Constructivist Pedagogy.

The investigator has collected the data through interview, focus group discussion and observation of classroom to study practices of constructivist pedagogy by the Elementary School Teachers, which were categorised under 10 dimensions such as: Inquiry and Problem Solving learning (**IPL**), Cooperative and Collaborative Learning (**CCL**), Group learning (**GL**), Project based learning (**PBL**), Role playing (**RP**), Use of Multimedia and Teaching practices (**MTP**), Active involvement of learners (**AIL**), Assignment

and Assessment Practices (**AAP**), Cognitive apprenticeship (**CA**) & Dialogue and Instructional conversation (**DIC**).

3. Major Findings and Conclusion

3.1 Objective

To study the Practices of Constructivist Pedagogy of Elementary School Teachers with reference to their Location.
- Both the teachers of different categories were practicing the components of IPL, CCL, AA, CA and DIC.
- The teachers from both area were not practising PBL and RP in classroom situation.
- In case of AIL and GL it was also found that, the teachers belongs to School of Athgarh were not practising all the components of these two dimensions as compare to teachers belonging to School of Tigiria.
- In case of MTP both category of teachers preferred traditional teaching practices. From the FGD with students it was found to be same as the views of the teachers and classroom observation.
- The study found that the teachers from Elementary School of Athgarh Block practising different practices of constructivist pedagogy frequently than the teachers of Tigiria Elementary School.

3.2 Conclusion

Pedagogy is sensitive to gender, class, caste and global inequalities (NCF, 2005). This kind of pedagogy requires teacher to plan learning in keeping with children's psychological developments and interests. The constructivist model of teaching enables learners to construct knowledge, whether this construction reflects objective realities, or the construction is perceived to sharpen one's cognitive development for acquiring higher - level intellectual development, or the construction of knowledge should happen in a social interactive setting with the mediation of individuals. To conclude, the study revealed that practices of

constructivist pedagogy by the elementary school teachers vary due to their locationperticularly from the Ten dimensions teachers were practising Inquiry and Problem Solving learning (IPL), Cooperative and Collaborative Learning (CCL), Group learning (GL), Use of Multimedia and Teaching practices (MTP), Active involvement of learners (AIL), Assignment and Assessment Practices (AAP), Cognitive apprenticeship (CA) & Dialogue and Instructional conversation (DIC) where as Project based learning (PBL), Role playing (RP) had not practised by the teachers.

References

[1] Adak, S (2017) **Effectiveness of constructivist approach on academic achievement in science at secondary. Educational Research and Reviews.** Vol.12 (22), pp.1074 - 1079, DOI: 10.5897/ERR2017.3298, http: //www.academicjournals. org/ERR

[2] Basilaia, G., & Kvavadze, D. (2020). Transition to Online Education in Schools during a SARS - CoV - 2 Coronavirus (COVID - 19) Pandemic in Georgia. *Pedagogical Research, 5* (4), em0060. https: //doi. org/10.29333/pr/7937

[3] Bharati, P. &Mohalik, R. (2014). Pedagogical Content Knowledge Of Science Teachers At Secondary School Level. TheRavenshaw Journal of Educational Studies, 3 (1&2), pp.111 - 120

[4] Kim, J. S (2005). The Effects of a Constructivist Teaching Approach on Student Academic Achievement, Self - concept, and Learning Strategies. *Asia Pacific Education Review*. Vol.6, No.1, 7 - 19.

[5] Koto, I. (2020). Teaching and Learning Science Using YouTube Videos and Discovery Learning in Elementary School. Mimbar Sekolah Dasar, *7* (1), 106 - 118. doi: http: //dx. doi. org/10.17509/mimbar - sd. v7i1.22504.

[6] Lew, L. Y (2010) The Use of Constructivist Teaching Practices by Four New Secondary School

[7] Science Teachers: A Comparison of New Teachers and Experienced Constructivist Teachers. *Science educator*. Vol.19, no.2, 10 - 21.

[8] Nayak, R, K. (2017). A Study on Effect of Constructivist Pedagogy on Students' Achievement in Mathematics at Elementary Level.

[9] NCERT (2005) National Curriculum Frame Work. National Council of Educational Research and Training. New Delhi.

[10] Sheridan, L. (2016). Examining Changes in Pre - service Teachers' Beliefs of Pedagogy. *Australian Journal of Teacher Education, 41* (3). http: //dx. doi. org/10.14221/ajte.2016v41n3.1

[11] Sultana, S., Rastogi, R. & Tabassum, S. (2022). Social Constructivist Approach: A Panacea for EFL Learners' Stress and Anxiety during Covid - 19. *Journal of Positive School Psychology* 2022, Vol.6, No.3, 1133 – 1143. http: //journalppw. com

[12] Sumardi, L., Rohman, A., & Wahyudiati, D. (2020). Does the Teaching and Learning Process in Primary Schools Correspond to the Characteristics of the 21st Century Learning? *International Journal of Instruction*, 13 (3), 357 - 370. https: //doi. org/10.29333/iji.2020.13325a

[13] Woolfolk, A. (2007). *Educational Psychology*. Boston: Pearson Education.