



ANALYTICAL REPRESENTATION OF 5E MODEL OF CONSTRUCTIVIST APPROACH AND PEACOCK MODEL OF EVALUATION IN THE CONTEXT OF CONTINUOUS AND COMPREHENSIVE EVALUATION IN ELEMENTARY EDUCATION OF WEST BENGAL : A STUDY

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Abstract

Continuous and comprehensive evaluation (CCE) is not new in India. This was proposed by the Kothari Commission (1964-66), National Policy on Education (1986) and the National Curriculum Framework Work, 2005 in the interest of holistic evaluation. West Bengal is one of the Indian states that have introduced continuous and comprehensive evaluation to assess the progress of elementary-level students. It has become mandatory as per the Right of Children to Free and Compulsory Education Act, of 2009. The primary goal of CCE is to analyze the gradual growth of all three domains of human behavior, namely the cognitive, affective, and psychomotor domains. CCE includes formative and summative evaluation. In West Bengal, there is a unique model known as the PEACOCK Model, which incorporates the core concepts of the NCF, 2005, as well as the statutory principles of the RTE Act, 2009. That methodology includes five indicators for measuring the child's overall growth. The indicators are designed in such a way that both curricular/scholastic and co-curricular/co-scholastic areas are addressed. The number of indicators is limited to five to keep it user-friendly. The signs include participation, questioning and experimenting, interpretation and application, empathy and cooperation, aesthetics, and creative expression. The authority has recommended an everyday-specific timetable for all primary schools in the state to capture the grades of formative evaluation of the learners. This paper attempts to analyze the relationship and interdependence between the 5E model of constructivism and PEACOCK model of evaluation at elementary education. It concludes that there is a coherent linkage between the 5E model of constructivism and PEACOCK model of evaluation and if teacher use 5E model of constructivist approach in the day to day instruction in the Elementary Education then implementation and documentation of formative evaluation in true sense will be possible for the teacher, which will be helpful for evaluation of students holistically at Elementary level.

Keywords: *Constructivist Approach, PEACOCK Model, Evaluation, Elementary Education*

Introduction

The primary goal of formal education is to develop all three dimensions of human behavior. When we look at the many definitions of 'education' supplied by educators, the majority of them argue for the overall growth of physical development, moral development, intellectual development, spiritual

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development, and so on. According to the NCF (2005, student evaluation should be varied and continuous. The Right of Children to Free and Compulsory Education Act of 2009 also strongly supports continual and comprehensive evaluation. However, in our country's educational system, particularly in elementary and secondary education, we typically focus solely on the cognitive qualities of children, whether in the teaching-learning process or the evaluation procedure. Even at the highest level of education, we do not focus on all components of cognition; instead, we focus solely on memory. The 5E Model of Constructivist Approach in the instruction process, as well as continuous and comprehensive evaluation in the learners' assessment process, may provide a solution.

Review of Related Literature

There is considerable literature on constructivism and Continuous and comprehensive evaluation in the context of our country. Phukan, S., & Sultana, Y. (2021) revealed from their study that the teachers are having highly favourable attitude towards Continues and Comprehensive Evaluation (CCE). Berry, J, et al. (2020) concluded from their study that CCE had no significant effects on test scores of the students. Yagnamurthy, S. (2017) concluded from his study that teachers' plays very significant role for effective implementation of CCE and there are conceptual differences in policy and implementation framework in CCE and it does create confusion among stakeholders. Cyril, A. V., & Jeyasekaran, D. (2016) revealed that the attitude of continuous and comprehensive evaluation of high school students in Dindigul district, found to be positive. Panda B.N. (2014) concludes in his study that CCE advocates a school-based continuous and comprehensive evaluation system to (i) reduce children's stress; (ii) make evaluation comprehensive and regular; (iii) provide space for teachers to teach creatively; and (iv) provide a tool for diagnosis and producing learners with greater skills. Kothari, R. G., & Thomas, M. V. (2012) conducted their study in Kerala at elementary level found that CCE is implemented there but not in true sense and for implement that teachers are facing some problem and challenges i.e. overcrowded classroom and lack of proper training. Researchers like Pani (2004), Rao (2006) reported the significant contribution of CCE on students' scholastic and non-scholastic achievement. Because of lack of research evidence on West Bengal perspective and moreover in the procedure of PEACOCK Model of CCE in the perspective of West Bengal, the present study was undertaken.

Research Questions

1. What is the framework of PEACOCK model of evaluation in the context of evaluation of student progress in elementary education of West Bengal?
2. Is there any interrelationship between 5E model of constructivist approach and PEACOCK model of evaluation in the form of CCE in the state of West Bengal?
3. What are the challenges for implementation of PEACOCK model of evaluation by the teacher in the context of evaluation of student progress in elementary education of West Bengal?
4. What are the benefits for the teachers by using or implementing both 5E model of constructivist approach for classroom instruction and PEACOCK model of evaluation for assessment in elementary education in the state of West Bengal?

Delimitation: The study area was only confined to study the framework of PEACOCK model of evaluation in the context of evaluation of student progress in elementary education of West Bengal and to find interrelationship between 5E model of constructivist approach and PEACOCK model of evaluation in the form of CCE in the state of West Bengal. The study also delimited to study the benefits and challenges for implementation of PEACOCK model of evaluation by the teacher in the context of evaluation of student progress in elementary education.

Methodology

Research Design: Descriptive survey method followed here in this study. After the preparation of Interview schedule for Institutional Heads and teachers' primary data were collected. Data were also collected from the registers of formative evaluation and UDISE reports from schools.

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Tools used: The data were collected through an Interview schedule for Institutional Heads and Interview schedule for the teachers. Data were also collected from the registers of formative evaluation and UDISE reports from schools.

Sample: Total hundred teachers were selected as sample from fifteen schools (out of 15 schools, 05 secondary and 10 primary schools) under the Khatra Educational Block of Bankura were selected purposively where class I to VIII students are studying.

Procedure of Data Collection: The data were collected from Interview schedule for Institutional Heads and teachers.

Analysis and interpretation of data: After gathering data from the aforementioned sources, the researcher analyzed it, and the following findings were obtained:

Major Findings

1. State of West Bengal has a specific model i.e. The PEACOCK Model for evaluating the holistic development of the students, where the basic principles of NCF, 2005 and statutory principles of RTE Act,2009 has been taken into consideration. The main focus of this PEACOCK model is to assess all the three domain of human behaviour i.e. cognitive, affective and psychomotor domain of human behaviour. Continuous and comprehensive evaluation comprises both the evaluation i.e. formative and summative evaluation. In the above mentioned PEACOCK model for formative evaluation there are five indicators by which students' holistic development can be assessed on regular basis through grade in 4 point scale i.e. A,B,C,D as per students involvement and performance, where grade A = 75-100%, B=50-74%, C= 25-49%, D= <25%. The five indicators are set in such a way that both the curricular/scholastic and co-curricular/co-scholastic areas are covered. Number of indicators is kept to five so that it remains user friendly. The indicators are: Participation, Questioning and experimentation, Interpretation and application, Empathy and co-operation, Aesthetics and Creative expression. For the documentation of grades of the learner of formative evaluation, everyday specific timetable has been recommended by the authority for all schools throughout the state, where students are studied in elementary level. These grades earned by the learners on regular basis documented by the teacher are being included in the progress report thrice in an academic year as scored in formative evaluation as 10,20,20 marks respectively means every day's grades are taken into consideration for awarding the marks of formative evaluation only and for summative evaluation there is 7-point scale i.e. A+= 90-100%,A= 80-89,B+= 70-79,B= 60-69,C+= 45-59%,C= 25-44%,D= < 25% indicating indirect grading system for the evaluation of scholastics subjects up to class VIII in the PEACOCK model. There is scope for total three summative evaluation or unit test in each scholastics subjects up to class VIII in the PEACOCK model carrying 10,20,50 marks respectively in an academic year.
2. If we see the following table easily we'll be able to find out very strong interrelationship between 5E model of constructivist approach and PEACOCK model of evaluation in the form of CCE in the state of West Bengal.

Steps of 5E Model of Constructivist Approach	Five Indicators of Formative Evaluation in PEACOCK Model
Engage	Participation
Explore	Question and Experimentation
Explain	Interpretation and Application
Elaborate/Extend	Empathy and Cooperation
Evaluate	Aesthetic and Creative Expression

Table: 1

From the above Table:1 it can be concluded that there is linkages between the steps of 5E Model of Constructivist Approach and five indicators of Formative Evaluation in PEACOCK Model. If the students are 'engage' in any activity, then only the teacher can be assess the level of intensity or performance of the student participation. Likewise, through questioning and experimentation students can explore the related content deeply. In the step of explain, students can interpret the content as per their ability and apply the same whenever required. In the step Elaborate/Extend, all students will get equal chance to extend their knowledge by collaboration and through mutual cooperation. So teachers are also able to assess the level of Empathy and Cooperation of the students by observing their behavior here. In the 'Evaluate' stage students aesthetic and creative expression can be easily assess by the respective teachers. So there is no denying fact that there are strong linkage between the steps of 5E Model of Constructivist Approach and five indicators of Formative Evaluation in PEACOCK Model.

3. It has been found from the study that there are various challenges are facing by the teacher for implementation of PEACOCK model of evaluation in the context of evaluation of student progress in elementary education of West Bengal. It has been found that less than 40% teachers have clear-cut knowledge about appropriate structure and framework of PEACOCK model of evaluation in the context of CCE in Elementary Education in West Bengal. Although there is stringent instruction by the Higher Authority and specific time slot for regular documentation of grades earned by the each students of elementary level as per the above mentioned five indicators for formative evaluation but almost no school is documenting the same regularly. It is general practice by the teacher to document the grades in the register of formative evaluation randomly or as per their convenience. 75% teachers from secondary schools revealed that because of overcrowded classroom they are unable to follow the prescribed norms of documentation of grades of students in connection with formative evaluation in the context of PEACOCK Model. More than 90% teachers of primary schools are revealed that because of multi grade classroom they are unable to do the same. According to the 80% Institutional Heads, lack of proper training on instructional methodology like activity-based learning, collaborative learning, cooperative learning by the teacher may be the cause of non-implementation of PEACOCK model of evaluation in the context of CCE in Elementary Education in West Bengal.
4. There are benefits for the teachers if they implement both 5E model of constructivist approach for classroom instruction and PEACOCK model of evaluation for the assessment of students' gradual overall development in elementary education in the state. It has been found from the UDISE report from all school that they are using CCE for assessing the students' gradual progress al elementary level but it has been found that no school are implementing PEACOCK model of evaluation in the context of CCE in Elementary Education in true sense. As there is coherent linkages (discussed above) 5E model of constructivist approach for instruction and PEACOCK model of evaluation in the form of CCE, so if teachers uses both in the elementary level, implementation of PEACOCK model of evaluation in the context of CCE in Elementary Education will be possible for the teacher in true sense and it would be helpful for the teachers and healthy for the elementary education of West Bengal.

Conclusion and Suggestion

This finding is therefore confirmed by the earlier study of Panda, B.N. (2014) and Kothari, R. G., & Thomas, M. V. (2012).The study will be helpful to understand the current scenario of CCE in the elementary education of West Bengal. Continuous and comprehensive evaluation can be successfully implemented by ensuring appropriate PTR, training teachers in CCE, frequent monitoring and supervision, appointing class-specific teachers, improving school infrastructure, and raising awareness among key stakeholders, including parents.

Suggestions for Further Research: The current study analyzes the 5E Model of Constructivist Approach and the PEACOCK Model of Evaluation in the context of CCE in West Bengal elementary

education. Following these study experiences, the following recommendations for further research in this area can be made:

- The present study was confined to only 15 schools and 100 teachers teaching in the elementary level. It can be extended by increasing the size of sample.
- Similar studies can be done comprehensively by using other tools.
- Similar studies can be conducted by applying other statistical techniques.

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