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INDICATORS FOR THE CONSTRUCTIVISM APPROACH

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ABSTRACT

According to constructivist theory evaluation should as far as possible diagnostic in nature. Constructivism -group learning, understanding, problem solving teaching approach, facilitates teaching & proximal development. In evolution of evaluation process various methods and techniques are developed. Indicator development play important role in implementation of constructivism approach. It is the basic evaluation tool. Indicators like physical indicators, social indicators, cognitive indicators and organization indicators are developed. Learning indicators facilitate strategies to learner's progress continuously with a focus on curriculum expectation. -+This paper focuses on physical and cognitive indicators which are based on instructional model. The learning activities are designed for students to construct their knowledge over time through prior knowledge, own experiences and observations. These activities improved their analytical and critical thinking. In constructivism, evaluation and assessment can be done on all above points along with continuous instructional process. All this teaching learing process indicators play important role in continuously evaluation. making examination more flexible and without burden .

Introduction-

In the Educational focused on the four main priorities of education policies have been Access Equity, Quality and Governance. Various educational surveys indicate that learning achievement of children in various subject of elementary stage is not up to expected level. Continuous observation of the child learning is an essential component of a teaching learning process. It gives a teacher an idea that as a facilitator what are necessary requirements to enhance the teaching learning process. Teacher adopts several parameter through which assesses continuously learning progress of the child. These parameters are taken as learning indicators that enable the teacher to indentify learning gap. Hence the researchers develop indicators for the status study of implementation of constructivism approach.

Objectives:-

1) To develop indicator for this status study of implementation of constructivism approach.

2) To find out the present status of implementation of constructivism approach.

3) To analyses the strength and weakness of implementation of constructivism approach.

Research Question:- 1) What is present status by using 5E model and 5 components of constructivism in constructivist approach in teaching of Science?

2) What are the strengths in implementing constructivist approach in the teaching of Science?

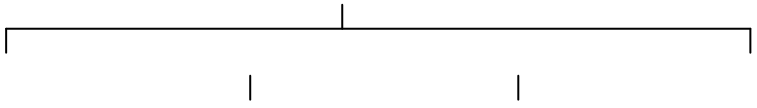
3) What are the weaknesses in implementing of constructivist approach in the teaching of Science?

Sample & sampling:-In the present research sample selection is simple random lottery method.

District	**Medium of School**	**Number and Types of School management**		**Class 1st to 7th Std.**	**Science Teacher**
Pune	only Marathi medium school	Zillah parishad 799	Corporation school 425	1st to 7th Std. school Total - 1224	Teacher teaching 6th std.
		10% (80)	10% (43)	10% (123)	123

Tools:- 1) Development of Indicator. Researcher focus on Physical and cognitive indicators Views in planning of development of indicators.

Indicator Development



Physical social Cognitive organization

Indicators indicatorsindicatorsindicators

With the use of developed indicators following tools are developed.2) Observation Checklist. 3) Teacher Questionnaire by this tools collected data.

Actual Reserch procedure–

In the Reserch procedure finalized according to the objective

Learning Indicator Development in objective-I

Tools Develope on the basis of Learning Indicator ie observation checklist and Teacher Questionnaire by this Tools data collected.in objective II

Analysis and Interpretation of data is done. Conclusion are taken on graph and percentage in Objective III .

Data analysis:-

Table - I - School Environment was suitable for constructivism

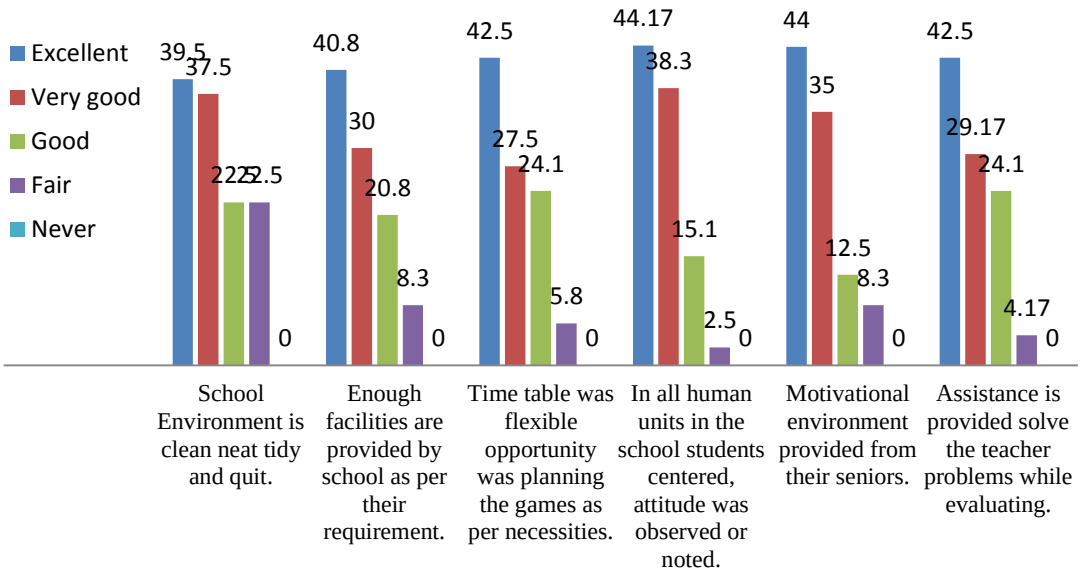
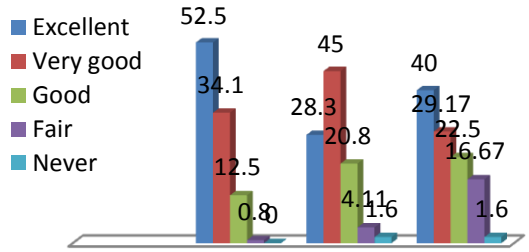
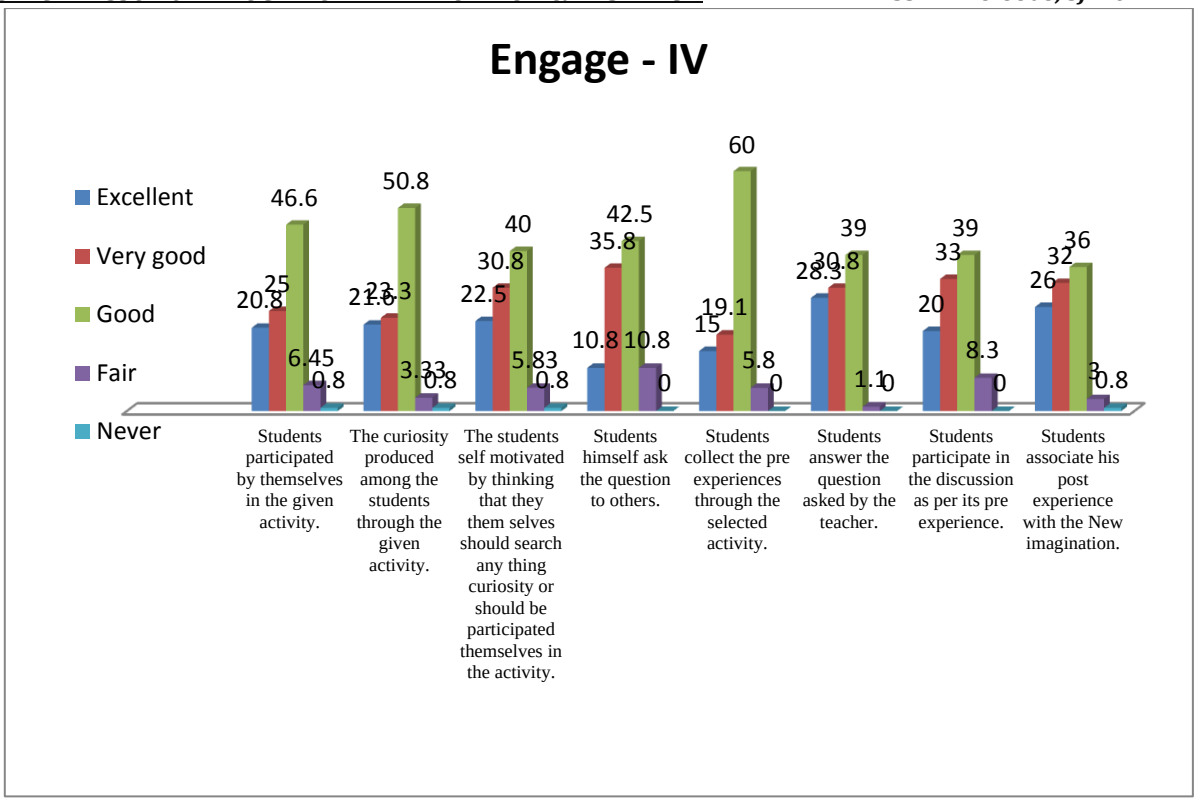
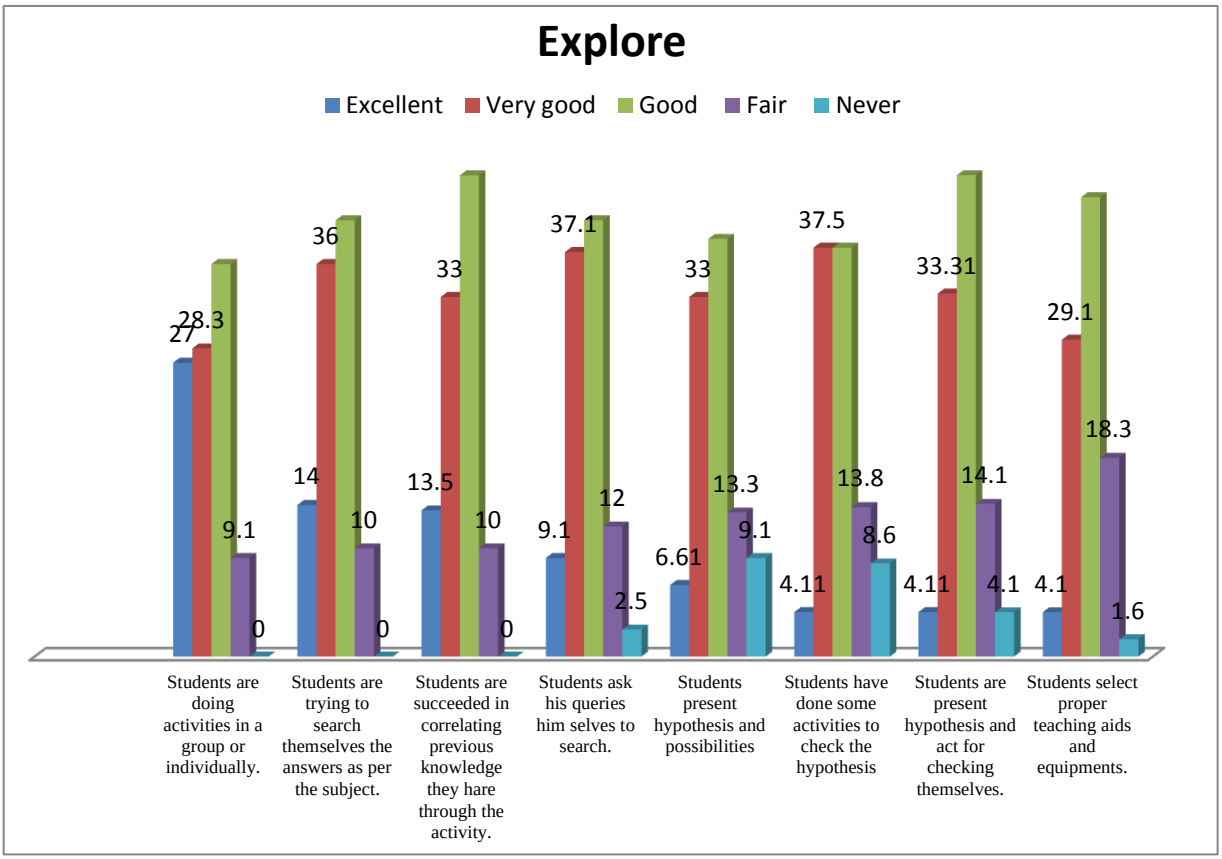


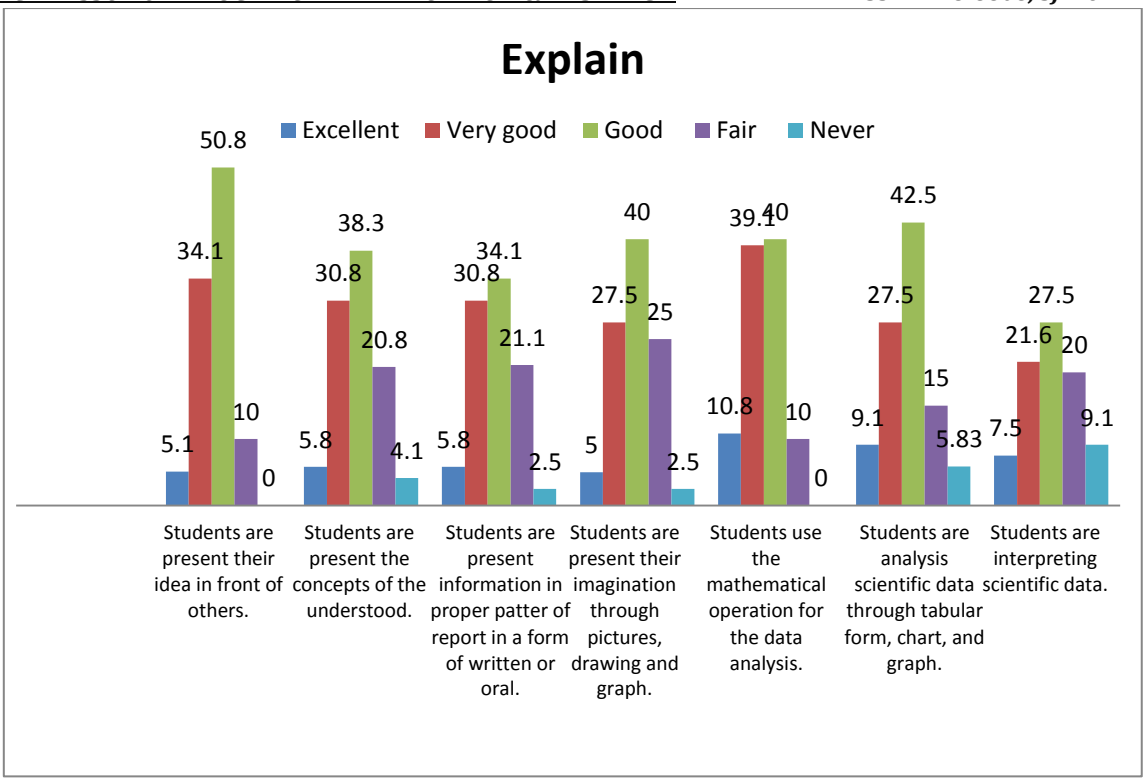
Table - II - Class Environment was suitable for constructivism

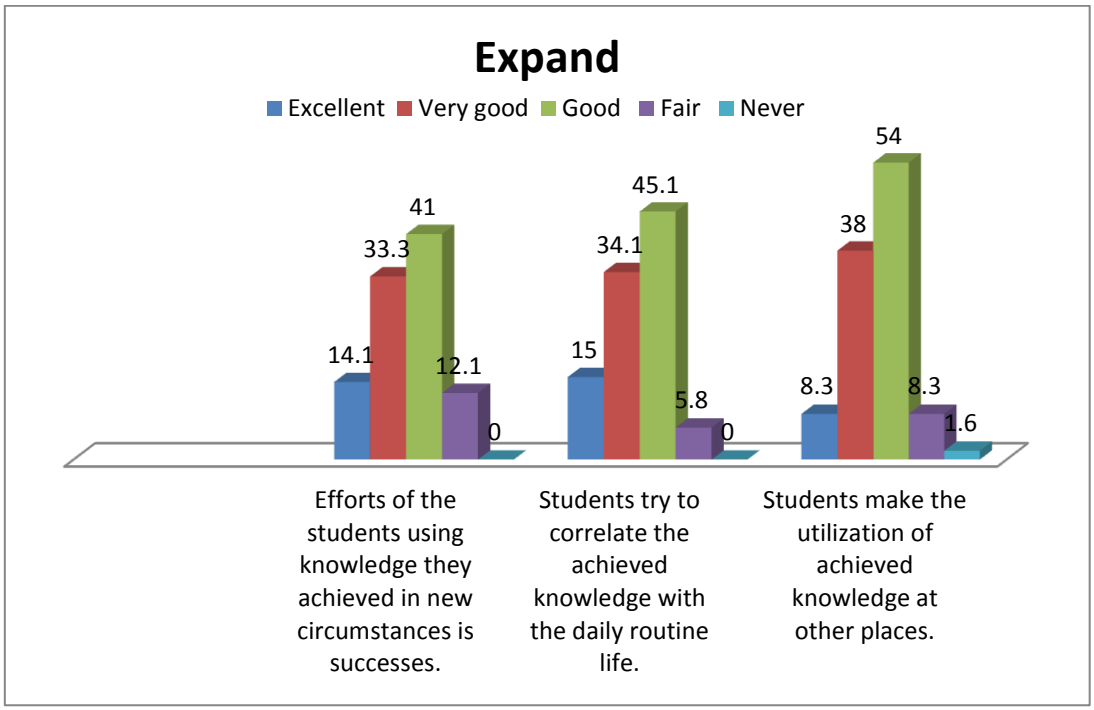


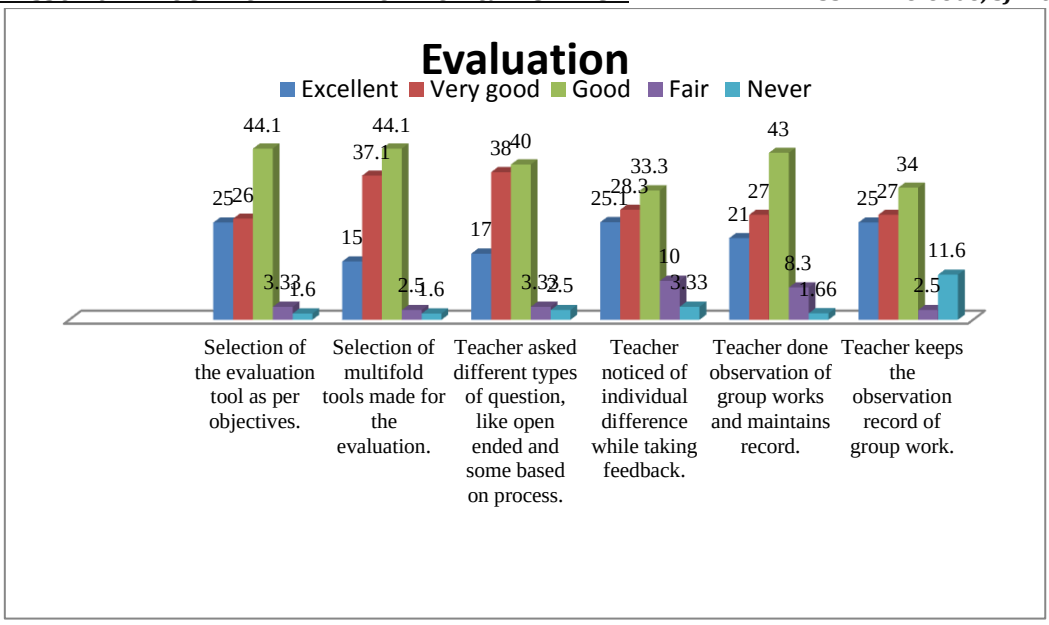
Seating arrangement was suitable. Seating arrangement was motivation f team work and spacious so that everyone can work freely.


Engage - IV
Excellent
Very good
Good
Fair
Never
Students participated by themselves in the given activity.
The curiosity produced among the students through the given activity.
The students self motivated by thinking that they them selves should search any thing curiosity or should be participated themselves in the activity.
Students himself ask the question to others.
Students collect the pre experiences through the selected activity.
Students answer the question asked by the teacher.
Students participate in the discussion as per its pre experience.
Students associate his post experience with the New imagination.


Explore
Excellent
Very good
Good
Fair
Never
Students are doing activities in a group or individually.
Students are trying to search themselves the answers as per the subject.
Students are succeeded in correlating previous knowledge they hare through the activity.
Students ask his queries him selves to search.
Students present hypothesis and possibilities
Students have done some activities to check the hypothesis
Students are present hypothesis and act for checking themselves.
Students select proper teaching aids and equipments.


Explain
Excellent
Very good
Good
Fair
Never
5.1
34.1
50.8
10
0
5.8
30.8
38.3
20.8
4.1
5.8
30.8
34.1
21.1
2.5
5
27.5
40
25
2.5
10.8
39.1
40
10
0
9.1
27.5
42.5
15
5.83
7.5
21.6
27.5
20
9.1
Students are present their idea in front of others.
Students are present the concepts of the understood.
Students are present information in proper patter of report in a form of written or oral.
Students are present their imagination through pictures, drawing and graph.
Students use the mathematical operation for the data analysis.
Students are analysis scientific data through tabular form, chart, and graph.
Students are interpreting scientific data.


Expand
Excellent
Very good
Good
Fair
Never
14.1
33.3
41
12.1
0
15
34.1
45.1
5.8
0
8.3
38
54
8.3
1.6
Efforts of the students using knowledge they achieved in new circumstances is successes.
Students try to correlate the achieved knowledge with the daily routine life.
Students make the utilization of achieved knowledge at other places.



Physical indicators	**Strength**	**Weaknesses**
School Environment	▪ School environment for constructivism is very supportive, flexible. ▪ The schools in which students centric attitude is noted in the human units. ▪ The schools provided assistance to solve a problem. ▪ The school having motivational environment provided by seniors. In this the percentage proportion of the excellent schools are maximum.	▪ School environment for constructivism is very supportive, flexible. ▪ The schools in which students centric attitude is noted in the human units. ▪ The schools provided assistance to solve a problem. ▪ The school having motivational environment provided by seniors. In this the percentage proportion of the excellent schools are maximum. **But percentage proportion below 50.**
Class Environment	▪ Class was clean neat and tidy ventilation and sufficient sunlight. ▪ Class decoration was proportion permissible. ▪ Schools having suitable decoration in classes for the students to perform activity and matching with itIn this percentage proportion of the excellent schools are maximum never schools are minimum percentage of.	▪ Class decoration was proportion permissible (1.6%). ▪ Setting arrangement for students can work freely was proper and suitable (1.6%) In this percentage proportion of never schools areminimum.
5 E instructional model base	**Strength**	**Weaknesses**
Engage	▪ The students participated by	▪ The students participated by

	themselves give activity ▪ The students are curiosity produced among the students through the given activity. ▪ The students self motivated by thinking that they themselves should search anything curiosity or should be participated themselves in the activity. ▪ The students' associate his post experience with the new imagination. ▪ The students himself ask the question to others. ▪ The students collect the pre experience through the selected activity. ▪ The students answer the question asked by the teacher, The students participate in the discussion as per its pre experience.	themselves give activity. ▪ The students are curiosity produced among the students through the given activity and the students' associate his post experience with the new imagination.
Explore	▪ The student are doing activities in a group or individually. ▪ The students are trying to search them self the answer as per the subject. ▪ The students a success in correlating previous knowledge through the activity ▪ The students a asked questions themselves to search. ▪ The students are present hypothesis and a possibility. ▪ The students a done some activities to check the hypothesis. ▪ The students' present hypothesis and act for checking them. ▪ The students are select proper teaching aids and equipment's ▪ The students implement activity and different programs to connect the relation between previous knowledge and the now knowledge produce.	▪ The students a asked questions themselves to search (2.5%). ▪ The students are present hypothesis and a possibility (9.1%). ▪ The students a done some activities to check the hypothesis (8.6%). ▪ The students' present hypothesis and act for checking them (4.1%). ▪ The students are select proper teaching aids and equipments (1.6%)
Explain	▪ The students is present their idea in front of others. ▪ The students' use the mathematic operations for the data analysis. ▪ The students are present the concept of he understood. ▪ The students are present information in proper pattern	▪ The students are present the concept of he understood (4.1%). ▪ The students are present information in proper pattern of report in a form of written or oral (2.5%). ▪ The students are present their imagination through pictures, drawing and graph (2.5%).

	of report in a form of written or oral. ▪ The students are present their imagination through pictures, drawing and graph. ▪ The students are analysis scientific data through tabular form graph, figure, and picture. ▪ The students and interpret scientific data.	▪ The students are analysis scientific data through tabular form graph, figure, and picture (5.83%). ▪ The students and interpret scientific data (9.1%)
Expand	▪ The students make the utilization of achieved knowledge at other places. ▪ The efforts of students using knowledge they achieved in new circumstances is successes. ▪ The students try to correlate the achieved knowledge with the daily routine life. ▪ The students ask the thought motivational questions to inspect high thinking process in the learning process of students ask different examples of daily routine life, organizes discussions.	▪ The students make the utilization of achieved knowledge at other places (1.6%)
Evaluation	▪ Selection of the evaluation tool as per objectives. ▪ The schools in which selection and utilization of evaluation. ▪ The teacher asked different types of question, like open ended and some based on process. ▪ The teacher noticed of individual difference while taking feedback. ▪ The teacher done observation of group works and maintains record. ▪ The teacher keeps the observation record of group work	▪ Selection of the evaluation tool as per objectives (1.6.%). ▪ Selection of multifold tools made for the evaluation (1.6.%). ▪ Teacher asked different types of question like open ended and some based on process (2.5.%). ▪ Teacher noticed of individual difference while taking feedback (3.33%). ▪ Teacher done observation of group works and maintains record (1.66.%) %)

Benefit of learning indicator inevalution of constructivism approach

- Indicator help teacher focusing on children's progression on a learning continuum
- Indicator help to Responding positively to diversity and helping all children to participate fully and achieve well.

- Indicator Providing simple guiding points for parents, children and others for understanding the learning by every child.
- Indicator helpDeveloping a framework for monitoring, learning and reporting the progress of all children.
- Learning Indicatorare expected to provide evidences of learning and other changes takes place in child behavior.

Conclusion:-

Quality improvement in education encompasses all round development of learners. Education system needs to ensure the enabling conditions to allow each child to learn and progress. This requires multiple approaches in curriculum and effective transaction in enabling an environment. RTE Act 2009 emphasizes on CCE to help teacher to develop and understanding on the learning progression of individual child identified the learning gaps and bridge them timely to facilitate their growth and development in a fearless and free enironment for implementation of CCE.Indicators play an important role in evalution byCCE constructvism approach in teaching learning process .

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