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# Analyzing the Learning Models among Students: Comparative Study

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***Abstract – Teaching a subject like physics needs extraordinary teaching strategies. It has been felt that disregarding strenuous endeavors of physics teacher, students neglect to get a handle on the specific concepts of subject, which lead lack of engagement among students towards physics. Teaching models are basically instructional structures. Alternative learning model that can be utilized in teaching physics to defeat the issues of absence of student learning accomplishment is a model of skill training (drill skills, and the concept attainment model the teaching models are extraordinarily important for Teaching a subject like physics needs exceptional teaching techniques. It has been felt that ignoring strenuous undertakings of physics teacher, students disregard to understand the particular concepts of subject, which lead absence of commitment among students towards physics. Even more ever students are consistently unfit to apply their understanding to push contemplates. In this manner there is a need to consider the ampleness of the teaching methodologies in physics. Teaching models are essentially instructional structures. They depict the course toward demonstrating and passing on express trademark conditions which cause the understudy to interface in such a way those particular changes happen in direct. Alternative learning model that can be used in teaching physics to vanquish the issues of nonappearance of student learning achievement is a model of skill training (drill skills, and the concept attainment model the teaching models are exceptionally significant for educators.***

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## I. INTRODUCTION

A model is a portrayal of for the most part in smaller than normal, to demonstrate the development or presence of something. The information processing model is a system utilized by psychological clinicians to clarify and describe mental procedures. Much the same as computer, the human personality takes information, sorted out and stores it to be recovered sometime in the future. Similarly as the computer has an information device, a processing unit, a capacity unit, and a yield device, so does the human personality have equivalent structures?

Training is a system which pivots around teacher, understudy and educational modules where instructor needs to expect a basic occupation. The path toward teaching and learning succeeds when it is honestly arranged and deliberately executed. The substance and procedures of teaching depends, in a manner of speaking, on what we need to achieve. With the changing situation of instruction it should find accessible assets to improve the teaching strategies to adjust to the need of the events. The teacher can make its usage in masterminding educational modules, understudy instructor communication and to make explicit teaching makes a difference. J. S. Bruner, the maker of the Process of Education (1960) and toward a speculation. The data procedure teaching model gives learning and appreciation to the understudies about new data and sureness's. Efficient cooperation between an instructor and a student are central for mental improvement. The basic role of teaching is to affect learning. Most of the instructor use the word 'learning' in a wide sense and arrange their teaching without keeping in view the learning prerequisite. Possibly they even ignore the ecological elements which increase learning [1].

At any rate teacher does widely remain turn around which the entire procedure turns in the formal structure. In the midst of the latest two decades various new techniques for teaching and training have been made, attempted, changed and grasped to different kinds of teaching learning condition. Model of teaching is an innovative strategy for teaching. There is need to facilitate attempts towards change of teaching techniques straight up to advancement of science and development, educational programs and material research nearby instructor prologue to get consideration. An authoritative obligation of data processing has been appreciated by the overall population in educators. Thusly a speculation of teaching must undertaking to set forward the strategies for boosting learning regarding kids. For achieving required student lead insightful improvement and acquiring of information and explicit mental procedure like reasoning, coherent imagination is

essential worries for viable and proficient data processing.

In the worry Joyce has communicated, "To give a general advancement we need to configuration proper instructional procedures which empowers our understudies to grow inwardly, physically, socially and mentally. There still exists a noteworthy gap between hypothetical information and genuine teaching in study hall or schools. Models of teaching as frameworks ought to be intertwined in our teaching practice." An assortment of teaching approaches have been created to structure direction anyway which approach/Model of teaching is most fitting having better effect, compelling, productive and fascinating must be answered through research keeping each Model's instructional and nurturant impacts in view [2].

In the midst of the latest two decades various new techniques for teaching and training have been made, attempted, changed and got to different kinds of teaching learning condition. Model of teaching is an imaginative technique for teaching. There is need to arrange attempts towards change of teaching strategies straight up to advancement of science and development, as we are living in the bleeding edge time. Educational programs and material research close by instructor prologue to get consideration. A conclusive obligation of data processing has been valued by the overall population in instructors. Along these lines a theory of teaching must undertaking to set forward the techniques for enlarging learning regarding kids. For achieving required student direct insightful improvement and getting of learning and explicit mental procedure like reasoning, wise thinking, deductive reasoning and coherent imagination be essential worries for compelling and proficient data processing. An assortment of teaching approaches have been created to plan direction anyway which approach/Model of teaching is most fitting having better effect, successful, proficient and interesting must be answered through research keeping each Model's instructional and continuing impacts in view [3].

## II. CONCERT ATTAINMENT MODEL

Concept attainment is the way toward characterizing concepts by choosing the qualities that are critical to the significance making and segregate between what is and what isn't an instance of the concept. A teacher needs to expert distinctive employments in order to finish up continuously proficient. The expert capacity can be extended in two distinctive ways: first by growing the extent of teaching procedures that are ought to have been used; second by twisting up dynamically skilful by virtue of these frameworks (Joyce and Weil, 1972). A theory of teaching must undertaking to set forward the techniques for boosting learning, required student direct, educated advancement and acquiring of information and explicit mental procedure like thinking, sensible thinking, deductive thinking and consistent innovativeness are essential worries for compelling and proficient data processing. Teaching of science relies upon novel contemplations and concept. It is in this manner basic that new strategies and methods of teaching must be familiar all together Concept attainment is the route toward portraying concepts by picking the characteristics that are basic to the hugeness making and isolate between what is and what isn't an occurrence of the concept. A teacher needs to expert unmistakable jobs so as to wrap up constantly capable. The expert limit can be stretched out in two unmistakable ways: first by developing the degree of teaching procedures that are should have been utilized; second by turning up progressively skilful by goodness of these systems (Joyce and Weil, 1972). A hypothesis of teaching must endeavor to set forward the systems for boosting learning, required student immediate, taught progression and obtaining of information and express mental procedure like reasoning, reasonable reasoning, deductive reasoning and reliable ingenuity are fundamental stresses for convincing and capable data processing. Teaching of science depends upon novel examinations and concept. It is as such essential that new systems and techniques for teaching must be well-known all together [4].

The term Concept Attainment Model is genuinely associated with created by Jerome S. Bruner and his accomplices. This Model is relied upon to demonstrate explicit concepts by contrasting and separating points of reference that contain the concept and that don't contain the concept. It is created from Bruner's work on the subjective activity called grouping. He is of the evaluation that requesting diminishes the complexity of condition and need for concept learning.

In this model students make sense of the characteristics of a gathering or classification that has just been framed by the teacher. To do as such, students look at and contrasts models that contain the classification of the concept with precedents that don't contain those class. They, at that point separate them into two gatherings, Concept attainment gathering and non-concept attainment gathering. At that point they endeavor to make sense of non concept attainment bunch with commonplace and new precedents and attempt to represent them in their own language. Continuously in the process non concept attainment bunch changed to Concept Attainment Group and accomplishment in instructional targets happens [5].

It is mostly intended to clear up thoughts and to present parts of substance. It connects with students into figuring a concept using representations, word cards or examples called models. Students who get onto the thought before others can resolve the concept and after that are

welcome to propose their own models, while different students are as yet attempting to shape the concept. Therefore, concept attainment is appropriate to study hall use since all reasoning capacities can be tested all through the movement. With experience, kids become skilled at recognizing connections in the word cards or examples. With painstakingly picked models, it is conceivable to utilize concept attainment to show practically any concept in all subjects.

## III. STEPS OF CONCEPT ATTAINMENT

1. Select and characterize a concept.
2. Select the qualities
3. Create positive and negative models
3. Acquaint the process with the students
4. Present the precedents and rundown the qualities
5. Build up a concept definition
6. Give extra models
7. Examine the process with the class
8. Assess

## IV. STRUCTURAL FRAMEWORK OF THE CAM

### I. Focus:

The rule focal point of this model is to learn or to accomplish a concept. This kind of learning can occur by arranging development. This organizing activity joins the 'unmistakable proof occasions' and 'setting into classes dependent on explicit criteria [6].

### II. Support System:

In this model, when the information are shown to the understudies and the students delineate their attributes, the instructor can record or make those properties on the composition board. Thusly the instructor can help the student through support system.

### III. Syntax:

According to Bruner and partners, the concept attainment model has three assortments. These can similarly be named as 'model'. The activities of the syntax of these three models shift, anyway these three assortments or models make from the equivalent conceptual base. These assortments or models are [7]

- **Reception** - arranged model it works straightforwardly for the teaching of components of a concept.
- **Selection** - Oriented model aides in utilizing the gathered data with respect to the exercises identified with the concept achieved through the gathering - arranged model.
- **Unorganized materials model:** Ungrouped material model, the concept hypothesis and concept attainment movement are exchanged to the genuine circumstance and ungrouped information is utilized in it [8].

### IV. Social system:

In the concept attainment model, the instructor creates points of reference and gets thoughts and materials from books and distinctive sources before starting the teaching work [9]

The proportion of legitimate learning gathered over the ongoing decade's stands up concerning the information impact, and can be never again ignored. Teaching of science is of more significant interest today than it was in the past especially at discretionary and higher helper measurement. For sure, even with giant headway of science and development and growing energy of science. Various researchers have been coordinated on the usage of inventive strategies, models and methods to indicate physical science that joins the two material science and science. Concept Attainment Model has been exhibited one of the headway models of teaching for an impressive time allotment this model is tentatively intended to confine the individual differentiations in the classes, by giving right fortress, input definitely at the particular time. Henceforth, has been exhibited useful for all classes of students [10].

**Table 1: Stages of Teaching Model of Concept attainment**

| Steps | Teacher actions | Inclusive activities |
|---|---|---|
| **First** | Offering examples and non-examples In two columns (yes) or (no) or (+) and)-( | -Thinking and formulating hypotheses about the concept<br>- Comparison of examples and non-examples<br>- Naming concept in their minds |
| **Second 1** | Just provide examples, without putting them in two columns (yes) or (no). | Examples and non-examples of teachers placed in two columns (yes) or (no) |
| **Second 2** | -Recorded examples and non-examples of | Learners provide examples and are placed In the |

| | | |
|---|---|---|
| | students<br>-Confirm or reject of hypotheses<br>- providing the name of the concept desired | appropriate column |
| **Third** | -providing definitions of the concept<br>-analyzing and summarizing Contents | -Talk about hypotheses<br>- Description of their thoughts about the concept desired |

## V. METHODOLOGY AND ANALYSIS

Quasi experiment design was used in this examination. The masses consider was all eighth grade students at ninth State Junior High School of Ambon. Test was finished with irregular examining procedure to get two assessments, specifically 83th grade and 84 th grade. As much as 30 students for every assessment were taken as test. These two assessments were normal as two gathering of test. One is as a first gathering or gathering 1, and the other one as a second gathering or gathering 2. The main gathering was instructed with drill skill model, and the second one with concept attainment model. The examination design can be delineated as seeks after (Table 1):

**Table 1: Study Design**

| Group | Pre test | Treatment | Post test |
|---|---|---|---|
| **Group 1** | $T_{1.1}$ | $X_1$ | $T_{2.1}$ |
| **Group 2** | $T_{1.2}$ | $X_2$ | $T_{2.2}$ |

Note:

***T1.1 = Pre Test for group 1***

***T1.2 = Pre Test for group 2***

***X1 = Drill skill model***

***X2 = Concept attainment model***

***T2.1 = Post Test for group 1***

***T2.2 = Post Test for group 2***

## VI. RESULTS OF THE STUDY

The results exhibits that before learning process with two models was done, the student learning accomplishment information assembled by pre test, is still low and fail characterized (79.98 % for gathering 1) and 67.52 % (for gathering 2) (Table 2). These results demonstrate that there is differentiate starting limit between two classes. For the most part the results gained after drill skill treatment and concepts accomplishment given to each class (Table 3) demonstrates that for the essential experimental class (group 1 taught with drill skills model have normal advantage of learning accomplishment about 77.5 % and enough orchestrated. For the second experimental class or group 2, the learning accomplishments regard normal about 47.6 % and fall flat arranged.

**Table 2: Pre Test Results**

| Mastery level | Group 1 | | Group 2 | | Qualification |
|---|---|---|---|---|---|
| | F | % | F | % | |
| **90 - 100** | - | - | 5 | 14.33 | Excellent |
| **75 - 89** | 7 | 21.01 | 7 | 19.01 | Good |
| **55 - 74** | - | - | - | - | Enough |
| **< 54** | 23 | 79.98 | 18 | 67.52 | Fail |
| **Total** | 30 | 100 | 30 | 100 | |

**Table 3: Post Test Results**

| Mastery level | Group 1 | | Group 2 | | Qualification |
|---|---|---|---|---|---|
| | F | % | F | % | |
| **90 - 100** | - | - | 5 | 12.62 | Excellent |
| **75 - 89** | 9 | 22 | 5 | 21.20 | Good |
| **55 - 74** | 21 | 77.5 | 6 | 19.1 | Enough |
| **< 54** | - | 81.21 | 16 | 47.6 | Fail |
| **Total** | 30 | 100 | 30 | 100 | |

In perspective on Table 2 and Table 3, it might be seen that the fundamental limit of students was remarkable. In the experimental group, before drill skill model was given, as much as 80 % of students were fizzled ordered, while after the drill skill model treatment was given, there is no student got missed the mark characterization. For the second experimental class or group 2, the basic test outcome (pre test) showed that as much as 66.66 % in fall flat characterization, and after the given of concept attainment model, the learning result of student were still missed the mark organized (46.6 %). The eventual outcomes of t-test examination (Table 4) showed basic complexity between the two models of learning on student learning accomplishment.

**Table 4: t-test Analysis Results**

| Level of significance | Degree of freedom | $t_{table}$ |
|---|---|---|
| 0.05% | 4.21 | **1.69** |
| 0.01% | 2.745 | |
| 0.1 | 3.301 | |

These results demonstrates that science-material science learning accomplishment of student by using drill skills model is better when differentiated and student that are instructed with concept attainment model.

## VII. CONCLUSION

Physics concept understanding is free of sexual orientation, when pre-physics concept comprehension and insight scores are taken as covariates. Concept Attainment Model of teaching is predominant and compelling the extent that geometric concepts comprehension of students conversely with Traditional Method. There is tremendous refinement of geometric concept accomplishment of commonplace students when taught by CAM and conventional strategy and urban students in like manner fluctuate generally when instructed by CAM. The Concept Attainment Model will ask the students to understand the concept while showing the concepts to them and offers a sensible opportunity to reprieve down the thinking procedures behind each concept and this will help them with understanding the subject even more strikingly. The Method in like manner compared the hypothetical concepts of Geometric Concepts and its application, which isn't so powerful in the customary Method. The Concept Attainment Model will help the students with learning the speculation and apply the as of late acquired information in the meantime. In perspective on the result and talk, it might be contemplated that there is differentiates in the fundamental limit of student before instructed with two learning models. The delayed consequence of student learning accomplishment show that drill skill model is better than anything the concept attainment model, and there is significance differentiates in the element of power among students trained using a drill skill model, and with the students whose informed by using the concept attainment model. Physics concept understanding is free of the knowledge when pre physics understanding score is taken as a covariate.

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