

E-CONTENT ON HEURISTIC METHOD

Science is not a thing to be talked about but a practical subject and the best way to learn it is by doing. This method involves the true spirit of science i.e., discovery, original investigation and inductive approach. The method is formative rather than informative.

Definition: -

In the words of Prof. Armstrong, the 'Heuristic method' is a method of teaching which involves our placing the students as far as possible in the attitude of a discoverer. 'Heurisco' means to find out. So, any method which excites children to work and think for themselves can be called the 'Heuristic method'.

Psychological basis or Principles of Heuristic Method (Inherent Principles):-

The Heuristic method is based on the following principles:

1. Principle of freedom
2. Principle of experience
3. Principle of activity or learning by doing
4. Principle of purposefulness
5. Principle of Logical Thinking
6. Principle of play-way
7. Principle of individual work

Procedures used in Heuristic Method: -

The heuristic method aims to put the pupil constantly in the place of a researcher or discoverer. The learning process becomes a great adventure because it is based on curiosity, interest and experimentation. The desire to solve the difficulties that present themselves in the process of experimentation is derived from the enthusiasm and drive of the discoverer.

Prof. Vaidya has explained it as follows:

“The procedure inherent in this approach was very simple. A sheet of instructions concerning the problem was given to every pupil. He was expected to take observations or conduct experiments, as the case may be, according to instructions. He recorded his observations in his notebook. From these observations, he was asked to draw his conclusions or inferences. Thus, he was introduced to reasoning from his observation or experiments.”

Prof. Armstrong desired that the heuristic method should be used along with other methods because the practical work done based on the heuristic method is a

slow process. It was also suggested that the teacher should give the minimum yet necessary guidance and assistance in setting up and carrying out those experiments.

Advantages of the Heuristic method: -

- This method is pupil-centred and involves learning by doing.
- It develops a liking for self-activity and develops self-confidence in pupils.
- There is every possibility for individual attention.
- Patience and perseverance are developed among students.
- It inculcates the habit of hard work in students.

Disadvantages of the Heuristic method: -

- The method is costly.
- It is a time-consuming method.
- Textbooks written on this line are not available.
- It is not suitable for the lower classes.
- It needs more resources to execute.
- Trained teachers on the lines of this method are not available.

Role of the Science Teacher in the use of the Heuristic Method: -

Prof. Armstrong has desired that a teacher should give minimum yet essential guide to the pupils. In a modified heuristic method, a teacher should play the following role:

- i) The science teacher should help the pupils in searching for a problem.
- ii) He or she should help them in setting up the experiment.
- iii) He should provide the required information concerning the problem.
- iv) The science teacher should help in developing values and attitudes related to experimentation.

References: -

- 1) Sharma, R.C. (2010), Modern Science Teaching, Dhanpat Rai Publishing Company (P) Ltd., New Delhi.
- 2) Sood, J.K. (2014), Teaching of Science, Shri Vinod Pustak Mandir, Agra-2.
- 3) Bhuyan Sailandra and Konwar Navajyoti (2018), Teaching of General Science-II, Banalata, Dibrugarh -1.

Submitted by-
Mitali Baruah,
Lecturer,
Govt. Banikanta College of Teacher Education, IASE Ghy-7