



Dept. of Education, Patna University  
INNOVATIVE TEACHING - LEARNING

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## Types of Group Controlled Instruction(GCI):

### 2. Group activities involving teamwork

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#### **OBJECTIVES**

- To know organize cooperative learning
- To understand specific activities in teamwork
- To differentiate between group investigation and group project.

#### **GROUP ACTIVITIES INVOLVING TEAMWORK**

- First type of GCI i.e. *Group Interactive Sessions* was discussed in the previous E-content.
- In this E-content we will learn about second type of GCI, that is *Group activities involving teamwork*.
- In this section we will study those activities which involve team mode and the process of their organization.
- These activities can be organised regularly for various subjects like math, science, social studies and languages. Considering the nature and the procedure of organising these activities.

**There are three methods of learning involving team work .**

1. Cooperative learning
2. Group project and
3. Group investigations

**1. COOPERATIVE LEARNING**

**BASIC PRINCIPLES INCLUDE IN COOPERATIVE LEARNINGS METHODS**

- Cooperative learning is a general term for various small group interactive instructional procedures.
- Students work together on academic tasks in small (2-5 member) groups to help themselves and their teammates learn together.
- It helps to develop in students the skill of cooperation, belongingness and team spirit .
- It is group or peer learning.
- In this method students work together to achieve a common goal.
- It creates more intrinsic motivation than does individualized learning\_.
- The feeling of togetherness produces positive attitudes and team spirit in the students.
- It is specifically useful for learning various skills and knowledge.

Process of organising cooperative learning in some steps are:

**A. Organising cooperative Learning:**

- For organising cooperative learning students should work in groups and each group member works in a cooperative manner to achieve the common goal.
- To organize cooperative learning some specific activities are as follows:

1. Formation of groups

- Work in small groups.
- Groups are heterogeneous.
- All members of the group strive for all group member's success.
- Each group should consist of a cross-section of the class: boys, girls; above average, average and below average students in terms of intelligence

2. Preparation of cooperative learning sheets

- prepare the learning sheets for all topics .
- These learning sheets consist of objectives, activities to be done by the group members
- The content of the topic and evaluation items based on the objectives.
- Participate in setting group guidelines for communication.
- Orientation to the students
- Students are habituated to work individually. So they first require information about how the cooperative learning will take place :

- Their evaluation is not on individual basis, rather as a group assessment. Students have to work as a team.
- All topics should be discussed collectively in a group.
- If student(s) are weak in the topic's objective then they to be helped by brighter students.
- Each member of the group must learn all fundamental concepts of topics assigned to the group.
- Average group assessment is based on index of comparing performances of each group with another and fulfillment of objectives by the members.

### 3. Conducting the cooperative learning session:

- Specific time is to be assigned for cooperative learning sessions. Learning sheets should be distributed 2-3 days before the session.
- Learning sheets must also provide guidelines for conducting these sessions.
- Activities must be flexible with the objective of topics.
- Each group may show variations when conducting activities but the objective must be fulfilled.
- Students now begin interacting in all forms e.g. asking questions, explaining concepts, making constructive arguments etc.
- Each members are evaluated by their respective groups only.
- Weaker students are helped by brighter ones and mistakes are omitted.
- Teacher should observe and provide feedback whether a group is performing in the right direction.
- Finally, average performance of the group is reported.

### **B. Advantages of Cooperative Learning:**

- Knowledge is obtained from the teammates rather than solely from the teacher.
- Each student gets to participate as a teacher, cognitively explaining concepts to enhance their and other's understanding.
- Creates constructive criticism, feedbacks and conflicts during session, increasing their critical thinking and comprehension abilities.
- Students learn to support and to be supported. Freely seeking assistance increases achievement of individual students.
- Limitations:
- Cannot be applicable to college classrooms and higher studies where study environment is individualistic.
- It is time consuming for new teachers
- Requires adequate facilities and infrastructure.

## **2. GROUP INVESTIGATION**

- Questions and doubts in the mind of curious students may not have answers in the textbook
- In such cases, investigation is required to reach the answers.
- Some of these problems/questions are big enough require collaborative effort. These larger problems are solved by group investigation.
- This is a group-controlled activity, requiring lots of attention from the teacher.

Following phases take place in group investigation :

### 1. Organising a Group investigation

- Teachers guidance is essential for a successful group investigation. Different phases of group investigation are as follows.

### 2. Selection of a problem:

- Any successful group investigation is primed by a selection of a topic which actually requires a group effort. Unsuitable topic as a primer leads to unsuccessful group investigation.

### 3. Cooperative Planning:

- All members of the group will distribute the workload among themselves. The teacher's role is to ensure that an effective plan meets following objectives:
- Method to collect and source evidence.
- Analysis and synthesis of evidence convert into logical conclusion.
- Contents of logical conclusion is the final report.
- Each member must know the following role play after planning the group investigation.
- What is their role - As a Coordinator, Analyzer, Information Collector(s)
- How to perform their role? - Coordinator organizes the flow of information in group investigation. Analyzer and synthesizes to logical conclusions in scientific manner from information. Collectors gather information from various sources.
- When to perform their role? - Timings and schedule must be prepared before conducting group investigation

*(Note: what, how, when are the main query to lead the group investigation.)*

### 4. Implementation:

- Now the prepared plan is carried out according to its time schedule.
- The requirement of teacher's guidance is at peak here. Students may often make mistakes due to planning errors or other causes.
- The teacher advises methods to check and correct these mistakes/causalities.

### 5. Analysis and Synthesis:

- Only logical and factual analysis of collected evidence creates a valid result.
- Misanalysis and wrong/unscientific use of data could only be checked by the teacher.
- Students will also require guidance when stranded by the lack/excess of information to perform analysis.

6. Preparation of report and presentation:

- A brief report is sufficient to explain the work done by the members of the group. It should include the following information:
- How the work was done?
- Sources of evidence and information.
- What findings did they arrive at?
- The report should not be of more than a few pages. It should not be very technical, rather a write-up which is to be presented by the Coordinator of each group.

7. Evaluation:

- Following are the criteria on which groups are evaluated:
- Teacher's observation of problem solving skills of a group.
- Adequacy of collected evidence and analysis.
- Report of logical conclusion
- Finally the groups receives feedback from the teacher.

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### **3. GROUP PROJECT**

- A group project means a planned set of activities which are undertaken by a group of students with defined objectives and which results in a finished product or practical accomplishment.
- This is a very broad concept of group-controlled learning which includes group investigation and other similar activities which can be completed by the member of a group.
- In some situations, group investigation may be project work.
- A lot of activities in school education cannot be completed by an individual and requires a group-wise plan to be completed.

Examples -

- i. Study of Country's demographic census,
- ii. Static/dynamic models of real life objects conducting surveys
- iii. Models of hydro-electric power generators
- iv. Models of different types of dams. etc.

1. Formation of Groups:

- Heterogenic groups with same criteria as in cooperative learning are prepared from a class.
- Each group has 5-7 members.

2. Proposing:

- A project list is prepared with its objectives are stated clearly.
- This list must account for the interest of topics shown by various groups and its members.
- The teacher should guide students during the selection of a project.
- At the end of this phase, all groups should have an assigned objective to be completed in a given time-frame.

3. Planning:

- An effective group project plan should requires the following to be done by the members:
- All available methods to achieve objective are briefly discussed.
- Methods which can be applicable to the given time frame are sorted out. These are practical methods.
- Most appropriate practical method is considered which outlines the objective.
- Finally, the method is discussed extensively and a time schedule is prepared.
- Workload is to be divided among the members by themselves but each member must have equal participation.

4. Implementing:

- All groups begin according to their time schedule.
- Students should be encouraged to discuss their allotted activities frequently and help each other in completing their activities.
- The group as a whole should come out with a finished product or an accomplishment.

5. Evaluation:

- The success of each group is evaluated according to:
- How well the group has performed the objective.
- Teacher's observation of how closely and cooperatively the group has worked to accomplish their objective. Groups with idlers receive lower scores.
- Optional judgement of each group's project as an exhibition and a total of at least 2-3 teachers as their judge.

DIFFERENCE BETWEEN GROUP INVESTIGATION AND GROUP PROJECT

<b>Group Project</b>	<b>Group Investigation</b>
i. It is done to provide accomplishment to student's interest.	i. It is done to fulfill student's curiosity of doubts/questions.
ii. All students interact collectively to distribute workload equally.	ii. There are separate roles for each student - coordinator, collector, analyzer etc.
iii. Collaborative projects are made into a finished product.	iii. Collaborative problems are analyzed scientifically into a finished report.

*Note - Group Projects become Group Investigation when student's 'project' becomes student's 'problem'.*

### **KEYWORDS**

- Accomplishment - the successful achievement of task.
- Heterogeneous - diverse in character or content
- Cooperative - involving mutual assistance in working towards a common goal

### **SELF CHECK QUESTIONS**

- 1) Describe the cooperative learning with steps and advantage.
- 2) write the different phases in the organization of group investigation
- 3) Write short notes on:
  - a. Group investigation and
  - b. Group projects.
- 4) Differentiate between group investigation and group project.

### **SUGGESTED READING**

<http://egyankosh.ac.in/bitstream/123456789/46863/1/Unit-9.pdf>

### **TOPIC(S) FOR NEXT CLASS**

*Discussion Strategy*

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