

# TEAM TEACHING

## **Significance of Innovation**

Keeping in view the changed times, there can be seen extensive changes in the methods of training the teachers in the training colleges in the both the fields of physical sciences and biological sciences. In this background, the innovations play an important role in school education and teacher education. In relation to the teaching of biological sciences and training of biological sciences teachers, this type of innovations are essential for the pupil-teachers in biological sciences with the knowledge of their nature, characteristics and uses. Some of the very important innovations are as follows :

### **Team Teaching Approach**

The teacher team approach is a new approach in the field of teaching. It was first used in America in 1954 and since then, all countries have accepted its significance in one or the other form. Kothari Commission too has said : "No worthwhile advance is possible in teaching methods unless the individual teacher understands what he is doing and feels secure enough to take the first few steps beyond the bounds of established practice. It is easier for a teacher to do so in small groups than he is working alone."

The group teaching is based on this thought that the responsibility of planning and execution of teaching falls not on one teacher but on the team of teachers.

### **Meaning and Definitions**

Team teaching is not imparted by a teacher alone. On the contrary, it is imparted by all members of the team. There should be two or more persons in the team. Thus, in team teaching, two or more teachers endeavour to teach by which the specific objectives of teaching are realized easily. This teaching team can also include, besides teachers, the clerks, librarians, laboratory assistants, some specialists, etc.

Some definitions of the term 'team teaching' are as follows :

1. Team teaching may be defined "as an arrangement whereby two or more teachers cooperatively plan, teach and evaluate one or more class groups in an appropriate and agreed upon teaching plan and in given length times so as to take advantage of specific competencies of the team members." —Singer, 1964

2. Team teaching represents "a form of organisation in which individual teachers decide to pool resources, interests and expertise in order to devise and implement a scheme of work suitable to the needs of their students and the facilities of the institution."

—David Warwick, 1971

3. Team teaching may be defined as "an instructional situation where two or more teachers possessing complementary teaching skills cooperatively plan and implement the instruction for a single group of students using flexible scheduling and grouping technique to meet the participation instruction."

—Carlo Olson as quoted by Chauhan, 1979

4. "Team teaching is that teaching-learning process where two or more teachers cooperatively formulate a plan, carry it out, evaluate its effectiveness as it relates to a specific group of students."

—Kadhan as quoted by Usha Rao, 1991

### **Characteristics of Team Teaching**

On the basis of the analysis of the above definitions, some characteristics can be discussed as here.

**1. Collective Responsibility :** Team teaching is based on the principles of collective responsibility.

**2. Wide Membership :** Team teaching is done by a team. The membership of this team is not limited to teachers alone, it can also include the following :

- (a) Laboratory assistant.
- (b) Library assistant.
- (c) Clerk.
- (d) Topic specialist.
- (e) Research scholars, etc.

**3. Mutual Cooperation :** Team teaching represents such a system in which two or more teachers cooperate with each other in the achievement of desired teaching-learning objectives.

**4. Device of Organisation :** Team teaching by itself is not a teaching method, but a method of organisation or management of teaching by which the teaching work is carried out in a planned way by the cooperation of several persons.

**5. Use of Utmost Strength :** In team teaching, each member contributes his maximum strength and ability to make the process more and more successful.

**6. Best Performance :** In team teaching, all teachers combine to carry out the teaching work. As the work performed by each of the team members is before the eyes of other members, they all attempt to make their work better than others. As a result, the team members get the inspiration and motivation to enhance their knowledge and skills, the results of which are pleasant.

**7. Proper Opportunity :** Each teacher has an opportunity, while teaching a subject or topic, that he contributes to his best according to his interests and abilities.

**8. Timely Advantage of Ability and Skill :** By team teaching, the students have the opportunity to take advantage of the specific abilities and skills of the team members.

**9. Flexibility :** There is a provision of flexibility in the number of team members in team teaching. For example,

- (a) First, according to the teaching circumstances, a team member is given less or more teaching time.
- (b) Second, the students are divided into big or small teams or for individual study.

**10. Cooperative Teaching :** Team teaching is also called cooperative teaching. It is because of the following facts :

- (a) All team members cooperate with each other while teaching.
- (b) No team member tries to prove himself smarter than the others.
- (c) Each team member tries for the realization of the common objectives.
- (d) Each member cooperates with each other in order to make up the shortcomings of one of their members.
- (e) Each member remains busy in carrying out collective responsibility.

**11. Utmost Contribution :** Each member of the teacher tries to put in his best contribution according to his abilities.

**12. Freedom :** Each team member has the convenience and freedom to contribute and select his role in team teaching according to his interest and ability.

**13. Idea of Collective Responsibility :** It is kept in view in team teaching that the responsibility of teaching the students and their advancement lies with all the members, and not one of them. The outcome of this spirit is always encouraging.

**14. Attention to Interest and Needs :** In team teaching, the members keep in mind the interest and needs of the students while carrying out their individual responsibility.

**15. Proper Use of Resources :** Team teaching is helpful in making adequate use of the human and biological resources that may be available in the welfare of the students and school.

In conclusion, team teaching can be called such an innovation that brings about desirable improvement in the teaching-learning process and its outcomes, in which the teachers and other people work as a team to impart education to the students in such manner as would be able to impart the best type of education in the prevailing circumstances.

### **Objectives of Team Teaching in Biological Sciences**

Team teaching is done keeping in view the following objectives in mind :

- 1. Importance to the Teachers :** To give optimum importance to the interests, abilities and capabilities of the teachers of biological sciences and take its advantage.
- 2. Spirit of Cooperation :** To develop the spirit of cooperation in the teachers.
- 3. Reforms :** To bring about desirable reforms in the teaching standard in biological sciences by the optimum use of the available resources.
- 4. Services of the Learned Teachers :** To benefit the students with the services of able, experienced and scholarly biological sciences teachers.

**5. Creating Effectiveness by Flexibility :** Much flexibility can be brought in the time and number of students to make teaching-learning process of biological sciences effective.

**6. Arrangement of Teaching :** To arrange for teaching according to the needs of students and school.

**7. Removal of Difficulties :** To eradicate difficulties related to the teaching of specific topics or subjects of biological sciences.

**8. Control :** To control the prevailing errors and shortcomings in the teaching process of biological sciences.

### **Organisation of Team Teaching**

For the organisation of team teaching, the foremost need pertains to the team members and their leader. Several members are selected as team members for team teaching. The leader of the team plays an important role in this process, that is as follows :

1. To decide according to the teaching-learning circumstances what form of the team will be adequate.
2. To determine the actions to be taken for the arrangement of human and biological resources in order to give a specific form to teaching.
3. To take the services of other specialists and assistants in addition to teachers.
4. To divide the duties among members with suitable distribution of time.

### **Steps for Team Teaching**

In order to perform the above tasks, a properly thought out method is adopted. For execution of this method, each member of the team contributes his best while cooperating with other team members. The activity or functioning can be divided into three steps :

1. Planning for team teaching.
2. Execution of planning.
3. Evaluation of team teaching.

They are being discussed briefly.

**1. Planning for Team Teaching :** The following activities are performed for making a suitable plan for team teaching :

- (a) To take decision about the subjects and topics to be taught.
- (b) To propound the objectives of team teaching and to write them in behavioural terms.
- (c) To find out the available human and biological resources.
- (d) To select the team members along with its leader for team teaching.
- (e) To find out the entry behaviour of the students.
- (f) To assign the teaching work according to the ability, proficiency and interest of the team members.
- (g) To take decision regarding the following :
  - (i) Teaching duration.
  - (ii) Number of students in team teaching.

- (iii) Instruction level.
- (iv) Teaching method.
- (v) Use of devices.
- (h) To take decision about the methods to be used for evaluation of learning outcomes.

**2. Execution of Planning :** At the second stage, efforts are made to convert planning into execution. The teaching work to be performed by the team members is converted into real activity at this stage. The teaching work is performed in the following three sessions :

**(a) Large Group or General Assembly :** Teaching in team teaching begins with a large team of students. In a large team, benefit can accrue to a large number of students. Besides, it is also advantageous from the viewpoints of management and expenditure of means. The students of all sections of a class in the class are collected to form a large team. This large team is taught in the leadership of the most able and capable teacher. Other teachers and members assist him in different teaching tasks. Two examples can be cited in this regard :

- (i) A teacher can add some additional aspects to the topic being taught.
- (ii) Other members can adopt the following measures :
  - showing maps,
  - writing important points on the blackboard.
  - give examples.
  - show experiments.
  - to make the things being taught more interesting and clearer.

The following efforts are made while doing the above things :

- (i) Effort is made to not hinder the flow, rate of teaching and realization of objectives.
- (ii) Effort is made to benefit the maximum number of students by team teaching.
- (iii) Effort is made to keep the teaching teacher fully free.
- (iv) Effort is made to bring about cooperation amongst the team members.

The team members contribute actively in the following tasks :

- (i) In maintaining discipline.
- (ii) In controlling teaching-learning circumstances.
- (iii) In the solution of questions and doubts being raised by the students.

The above method can be used to impart proper teaching to a large team in one session in a proper manner.

**(b) Small Group or Special Assembly Session :** After the general assembly session, the large team is divided into small teams and handed over to different teachers. The teachers pay special attention to their respective teams. The topics studied collectively during the general assembly session are discussed.

Because the number of students is small in a small group, it has the following conveniences :

- (i) Asking questions.
  - (ii) Resolving of any doubts/enquiries.
  - (iii) Overcoming any shortcomings in the already taught topics
  - (iv) Experimenting.
  - (v) Resolving problems.
  - (vi) Solution to the students' problems by the teachers.
  - (vii) More clarification of the subject matter already taught.
- (c) **Individual Study Session** : Having conducted teaching of the large group and then of the small groups, the students get the following abilities:
- (i) To busy themselves in teaching work by their individual efforts.
  - (ii) To self-study.
  - (iii) To solve problems.
  - (iv) To perform experimental and action-based activities independently.

In the third session, independence is granted to study, contemplate and work individually. The team members perform the following tasks :

- (i) To supervise the self-study and self-teaching being done by the students.
- (ii) To provide proper guidance and direction to the students.

The students perform the following tasks :

- (i) To do exercises according to their need.
- (ii) To go to library for self-study.
- (iii) To perform experiments in the laboratory.
- (iv) To keep busy in hobbies.
- (v) To properly use the acquired knowledge and skills.

**3. Evaluation of Team Teaching** : Under this final stage, all activities done under team teaching are evaluated. This evaluation has the following important role in the educational utility and the knowledge of the problems and weaknesses being faced during it.

Evaluation has to be performed in reference to the following :

- (a) Teaching objectives.
- (b) Entering behaviour of the students.
- (c) Different responsibilities being carried out by the team members
- (d) Availability of resources and their optimum use.
- (e) Different difficulties being confronted during team teaching.
- (f) Final behaviour of the students.
- (g) Educational achievements of the students.

At this level itself, appropriate evaluation techniques are considered important in order to evaluate the educational achievements of the students, for example

- (a) Oral, written and experimental tests.
- (b) Reports of exercise work.
- (c) Reports of homework.
- (d) Examination reports of session work.
- (e) Importance to teachers' advice.

- (f) Cooperation with all team members properly according to need.

### **Advantages of Team Teaching**

The utility of team teaching is as follows :

#### **1. Proper Use of the Available Material Resources :**

- (a) The team members cooperate with each other to perform their respective roles in teaching work.
- (b) Due to the cooperation of other members in team teaching, a teacher is able to use this in the most appropriate way.
- (c) When a teacher is presenting his subject matter before the students, the other team members assist him in the following tasks :
  - (i) In maintaining discipline.
  - (ii) In noting down the difficulties or questions faced by the students.
  - (iii) In writing or drawing on the blackboard.
  - (iv) In hanging charts, pictures, maps, etc.
  - (v) In showing slides to the students.
  - (vi) In operating projector.
  - (vii) In making use of other concrete teaching aids at the appropriate time.

As a result of the above activities, the available resources can be optimally used in team teaching.

**2. Use of Available Talent :** The optimum use of talent available in team teaching can be made in the following tasks :

- (a) In receiving the services of able, talented and experienced teachers and subject specialists in the best possible manner.
- (b) In requesting the respective team member to proceed with the teaching work according to the need of the talent or experience required in the teaching of a topic or subject.
- (c) In cooperating with each other according to one's interest and ability.

**3. Availability of Opportunities for Interaction with Experts :** There is a provision of taking the services of subject specialists if a need is felt in team teaching. Each school has one or the other good teacher with a view to experience, teaching skills and knowledge of subject, who can provide other team members good opportunities for learning.

Membership of the team can be provided to the people working in different fields who have practical and theoretical knowledge of the subject, for example :

- (a) Other schools.
- (b) Colleges.
- (c) Teacher training institutes.
- (d) University.
- (e) Other government and non-government establishments.
- (f) Research centres.

In such a case, both teachers and students get an opportunity to learn from these experts.



**4. Making Available Proper Learning Opportunities to Students :** Team teaching provides better opportunities to the students in advancement and learning. These opportunities are got in the following ways :

- (a) Sufficient opportunities are given for asking questions to the teachers.
- (b) Maximum assistance is got in eradicating their problems.
- (c) They get freedom of expression through discussion.
- (d) The exercise work and homework are examined from time to time.
- (e) The learning outcomes are evaluated from time to time.

Suitable opportunities are got by the small teams in the following tasks :

- (a) In resolving difficulties.
- (b) In comprehending the subject still better.
- (c) For exercising the subject.
- (d) For advancement and practical use by own efforts.

**5. Making Available Proper Chances for Professional Growth :** Team teaching has the following arrangement :

- (a) First, the chief responsibility for teaching lies with the most experienced, able and trained teachers. This provides motivation and education to the less experienced teachers in the team.
- (b) Second, they get proper opportunities for learning different things related to the minute details and teaching skills and also the use of teaching methods.
- (c) Third, all members have to prepare themselves while participating in the team work and they have to display their ability and talent before everybody. It provides all teachers to professionally grow and be motivated.

**6. Providing Help in Creating Proper Human Relationships and Cooperative Attitude :** The chief basis of team teaching is the cooperation and collective responsibility. The following conditions are necessary for its successful operations :

- (a) The team members should come near each other.
- (b) The team members are acquainted with the interests, abilities and capabilities of each other.
- (c) The team members establish cordial relations with each other.
- (d) The team members carry out their respective responsibility while working in cooperation with each other.

As a result, they would have the following merits :

- (a) Cordial relations.
- (b) Spirit of cooperation.
- (c) Loyalty towards the team.

The above merits motivate the students too in forming and adopting good habits. Thus, team teaching fulfils in the realization of one of its chief objectives, that is to provide assistance to the students in their social development.

**7. Economical in Time and Energy :** All team members come together to teach. It has the following pleasant outcomes :

- (a) No teacher is burdened with the teaching work.
- (b) The anxiety related to teaching work of every teacher is divided into the members.
- (c) A large team of students get teaching together.

Sometimes a group can be as large as having more than three hundred students. One teacher can teach them with the help of proper communication means and team members simultaneously.

**8. Flexibility :** Team teaching proves to be flexible in the following ways :

- (a) In giving more or less time according to situation.
- (b) In increasing or decreasing the size of group of students.

So, team teaching can be made available to the students in the following conditions :

- (a) In large teams.
- (b) In small teams.
- (c) At individual level.

There is much flexibility in following the time table of the department in team teaching. The team members can be given more or less time for their teaching work according to the need.

**9. Helpful in Maintaining Discipline :** Team teaching is helpful in maintaining creative discipline because the responsibility for discipline lies not on any one teacher but on all members of the team. Other members provide assistance to the teacher performing the teaching work in maintaining discipline. Because the teaching conducted by team teaching is interesting, lively and useful, the students can't even imagine of indiscipline. All problems and difficulties are resolved by the mutual cooperation of the team members easily. They have the following opportunities :

- (a) Opportunity for taking active part in teaching activities.
- (b) Opportunity for asking questions.
- (c) Opportunity for resolving their problems.

This is the reason that there is more disciplined teaching atmosphere available in team teaching as compared to traditional teaching.

**10. Proper Supervision :** Inspection and supervision of the educational activities of the students in the classroom depends on the individual attention of the teacher. He has to keep in mind the following :

- (a) How much are the students paying attention in the class?
- (b) Are they noting down the points told and written by the teacher?
- (c) How are they doing the exercise work?
- (d) How are they doing the homework?
- (e) How are experimental and activity works going on?

Because the above responsibilities lie with all team members in team teaching, the inspection and supervision of the students in educational tasks is done properly.

**11. Effective Training :** Team teaching plays an important and effective role in providing suitable training to the future teachers. Suitable arrangements for team teaching can be made in the training colleges with the help of the following :

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- (a) Teachers working in training colleges.
  - (b) Subject experts teaching in colleges and universities in such subjects as philosophy, psychology, statistics, mathematics, history, geography, political science, economics, biology, chemistry, physics, etc.
  - (c) Method experts working in state and central teacher training institutions.

In this regard, the following steps can be taken :

- (a) To make teams of the trainee-teachers under the leadership of experienced teachers for practicing teaching skills of the trainee-teachers.
- (b) To provide proper and adequate teaching and training to these teams.
- (c) To train the talented pupil-teachers to make them proficient in order to make teams under their leadership for training other pupil-teachers.