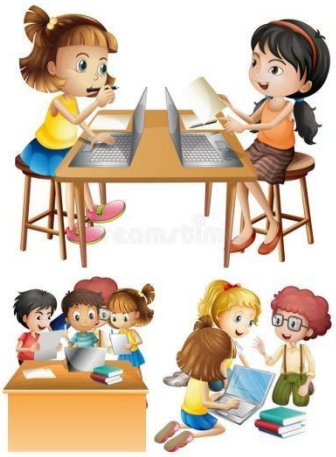
UNIT-III:ACTIVITY-BASEDANDGROUPCONTROLLED INSTRUCTION

Activity Based Instruction: Concept, Classification - Role Play, Simulation, Incident method, Case Study method, Gaming and prioritisation exercises. Group Controlled Instruction: Concept, Definition and Importance of Group Controlled Instruction – Types of Group Controlled Instruction: Group Interactive sessions, Co-operative Learning methods, Group investigation, Group Projects.

UNIT-III: ACTIVITY-BASEDANDGROUP CONTROLLED INSTRUCTION

ActivityBasedInstruction: Introductionand**Meaning**

The ABL approach is unique effective effort to attract out-of - schoolchildrentoschools.Theteachers who are involved in implementing this method have developed activities for each learningunitwhichfacilitatedreadinessfor learning, instruction, reinforcement and evaluation.



ABL has transformed the classrooms into hubs of activities and meaningful learning. Activity-based Learning is the method of education followed in the Corporation schools of Chennai (Tamil Nadu),from2003whenM.P.VijayKumar became the Commissioner of the Chennai Corporation. The ABL concept has been taken from the Rishi Valley practices. This has been

introduced in the Corporation Schools of Chennai with slight modifications. Seeing the success of the scheme this has been introduced in the Panchayat Union Schools.

- ✓ TheProcessof ABL approach
- ✓ Eachpart/unitiscalledamilestone.
- ✓ In each subject, the relevant milestones are clustered and linked as chain and this chain of milestones is called LADDER.
- ✓ To enable the children to organize in groups group cards are used.
- ✓ Evaluation is inbuilt in the system. Separate cards / activitiesare used for this purpose.
- ✓ Each child is provided with workbook/worksheet for further reinforcement activities.
- ✓ Children's progress is recorded through annual assessmentchart.
- ✓ Each milestone (Each part/unit is called a milestone) has different type of activities such as introduction, reinforcement, practice, evaluation, remedial and enrichment activities represented by different logos. Benefits/Features of ABL approach
- ✓ Childrenlearn ontheirown pace.
- ✓ There is clarity in each lesson. Each lesson are planned in a systematic way. The child knows what must be done next. Each unit of information or process is broken up in such a way that clarity of the lesson is ensured.
- ✓ Classroomenvironment ishighly enthusiastic.
- ✓ Childrenaretruly engaged intheact of learning.
- ✓ Thereiswide scopeforcreativityof children.
- ✓ Provisionofmoretimeforself-directedlearningandteacher directed learning is reduced considerably.
- ✓ Grouplearning,mutuallearningand self-learningare promoted.
- ✓ Teachersteachingtimeisjudiciouslydistributedamongchildren.

Only needy children are addressed by teachers.

- ✓ Children's participation in every step is ensured in the processof learning.
- ✓ Evaluationisinbuilt inthesystemitis donewithoutthechild knowing it.
- ✓ Rote learning is discouraged and almost no scope for rote learning.
- ✓ Periodical absenceofchild from school is properlyaddressed.Ø Classroom transaction is based on child's needs and interests. Ø Freedom to child in learning as he chooses his activity.
- ✓ Multi grade and multilevel in learning is effectively addressed. Ø No child can move to the next higher step of learning unless attains the previous one.
- ✓ Senseofachievementboostschild'sconfidence and morale.
- ✓ Attractivecardsandactivitycreate interest amongchildren.
- ✓ Scope for child's development in creative and communicative skills.
- ✓ Children will have a feel of security as they sit in rounds in the groups.
- ✓ Children are allowed to move in the classroom as they choose their activity.
- ✓ Moreover the distance between the teacher and the child is largely reduced and the teacher acts as a facilitator rather than teacher.
- ✓ The Teacher's Role in ABL The teacher has a very important role in this system. She has to learn the entire ABL system and work effectively with it. She has to exercise a quiet authority, without becoming authoritarian.
- ✓ An egalitarian attitude may require some un-learning and re-learning for teachers, but when they see it as part of the new culture of education, they are quick to accept it and practice it.

They are also able, in this system, to spend some time on children who are slow.

Concept

Theactivity-basedlearningrevolvesaroundthefollowing concepts:

- **Experimentation** – gathering knowledge through experience.
- **Exploration** – gathering knowledge and attaining skillsthrough active investigation.
- **Expression** – encouraging kidstoexpresstheirviews through visual presentations.

CharacteristicsofWell-designed Activities

1. **ActiveInvolvement**

The more students are actively engaged with their own learning, the more they learn. Students learn better when they are presented with problems that interest them and when they are provided the support and encouragement to discover relevant knowledge and strategies for solving those problems.

Well-designed group activities require students to develop problem solving strategies, articulate their mathematical ideas in words andinwriting andto arguewithpeersaboutwhich strategiesto employ.

2. **Confronting Misconceptions**

Newideasandknowledgearelargelyconstructed outofexisting ideas. If the existing ideas contain misconceptions, chances are the new knowledge too will be flawed.

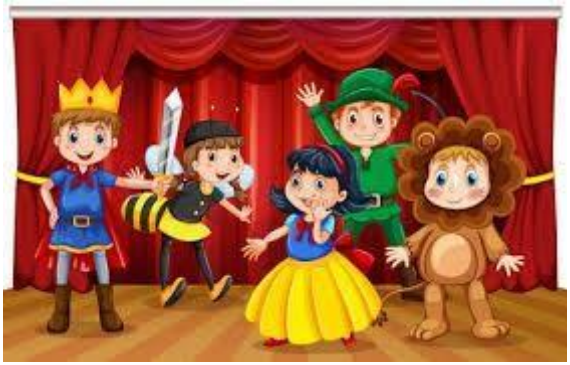
For this reason students should be urged to consciously identify and confront their own misconceptions. Learning activities should be designed to help identify and correct these misconceptions.

For example,students couldbeasked tomakepredictionsandto compare these to the actual results. By consciously addressing the difference between prediction and reality the learner would have the opportunity to make necessary adjustments to their accumulated

understanding.

3. **MultipleRepresentations**

Learning is enhanced when mathematical ideas are presented withamixtureofrepresentations.Theseincludeanalytic,numerical, graphical, verbal, and written. Well-designed activities both convey mathematical information and ask the student to respond in multiple modes.



4. **Iteration**

Studentlearningis improved when students are required to express ideas and get timely feedback on them. Well-designed activities allow students the opportunity to reflect on the critiques they receive, make adjustments, and try again.

5. **AppropriateUseof Technology**

Calculators and computers should be used to help students visualize and explore data and relationships, not just to follow algorithms to predetermined ends. Well-designed activities with technology help students learn by providing a tool to explore different ways to represent the same information.

Classification

RolePlay

Roleplayingisaway of workingthrougha situation,ascenario, or a problem by assuming roles and practicing what to say and do in a safe setting. This kind of learning experience has several benefits and advantages when it's implemented skillfully by a good trainer orteacher.

Instructors can supplement their teaching methods with role

playing in any context where it seems relevant.Even rehearsals of personalsituationsthroughroleplayingwithatrustedfriendcan

providebeneficiallearningopportunities.Let'slookatsomeofthe benefits of adding role playing to other instructional methods **Categories of role-play with examples of exercises.**

Categoryofrole-play	Exampleofrole-playexercise
Experiments/investigations	Any practical experiment Games Cut-and-stick; card games boardgames;dicegames;memory game
Presentations	Child-in-role; make a radio or TV commentary;shortorextended scienceplays
Metaphoricalrole-play	Humansculpture;mimes
Analogyrole-play	Using children as objects or elements of scientific theory
Simulationor moral/ethical	Organized debates; simulated meetings;simulatedcourtcases role-play)
Theatreineducation	Outside'dramacompanieswhich encourage audience participation

Roleplayistheeasiestwayforchildrentounderstandsincethey are used to playing them and quickly learn any new rules. For teachers who may be new to role play, these activities would form an ideal platform from which to move on to the more complicated or abstract categories of role-play.

Children may have difficulty taking on these roles because they havehadnoexperienceofthemintheirlives.Inthesecasesagooddeal

of background knowledge needs to be supplied, through textbooks or information sheets and detailed 'character cards' that give information about any character's opinions and arguments.

Someexamples oftheuses ofgames inthesciencecurriculum.

Examples of Suggested activity	Examples of curriculum applications role-play exercise
Cut-and-stick	Worksheets containing jumbled words, All aspects of the science curriculum, e.g. phrases or pictures which children cut out names of planets; bones and organsoftheandstickinthecorrectorder.Bodyparts, PeriodicTable;electrical symbols;etc.
Cardcycle	Children work in groups to organise Cyclic aspects of science, e.g. water cycle; prepared information cards intoaloop.carboncycle;nitrogencycle;blood circulation;decaycycle;rockcycle;foodwebs.
Matchingcards	Prepared cardsofwordsandpictures;
20 questions Stick	Stick aword orpicturelabel on thebacks egElements,compoundsandmixtures;themetalsand non-metals; energy resources; forces; chemical equations; electromagnetic spectrum; planets in the solar system.the questions to guess what is written on the skeleton; cells and their function, label. Answersarelimitedtoyesorno.energyresources; typesofworkin pairs

Boardgames	Question and chance cards; trivial All aspects of the science curriculum, e.g. pursuits; ludo;snakesandladders;growthanddevelopment; sexeducation;blockbusters;bingo.propertiesof chemicals; habitats; forces; etc.

	Dice game Children throw a dice to assemble a Skeletal system; organs of the body; parts of a scientific diagram which has had numbers flower; partsofthePeriodicTable;electricalassignedto variouspartsofit.circuits. Memory
Memorygame	Ask pupils to remember everything on a table or tray afterlookingatitforterms;metalsandnon-metals; toyanimals; various fuels.

In science education role play can be seen as an interaction between play, games and simulations and the student that performs an activity with learning outcomes .Using this method, the teacher encouraged the student to be intellectually and also physically involved in the lesson content and that facility his understanding of difficult concepts .

Therearemany **advantages** for learning science trough role play. Role-play

- ✓ encouragesstudentstocreatetheirownreality;
- ✓ developstheabilitytointeracttoother people;
- ✓ increasesstudents motivation;
- ✓ engagesshy studentsin class activities;
- ✓ makesstudentsself-confidence;
- ✓ helpsstudentstoidentifyandcorrectmisunderstandings;
- ✓ isagreeableandfun;
- ✓ Shows students that the real world is complex and problems that appear in the real world cannot besolved by simply memorizing information;

- ✓ Underlines the simultaneous use of different skills (acquired separately).

There are other reasons why role-play can be considering a valuable didactic method

- ✓ it give students an understanding of their own learning by creating their own roleplays;
- ✓ canteachaboutethicalandmoralissuesarisingfromthescience curriculum;
- ✓ ithelpsstudentsto recognizeandinterprettheir placeintheworld;
- ✓ it gives to the students a chance to experience life events in a physical way (more appropriate to their own learning style);
- ✓ analogicalroleplaycanhelpstudentsto conceptualize.

There are five categories of role-play that can be used in scienceclasses: investigations, games, presentations, analogy role play and simulations

BenefitsofRolePlaying

Roleplaying can beeffectively used intheclassroom to:

- ✓ Motivateandengagestudents
- ✓ Enhancecurrentteaching strategies
- ✓ Providereal-world scenariosto helpstudents learn
- ✓ Learnskillsusedinreal-worldsituations(negotiation,debate, teamwork, cooperation, persuasion)
- ✓ Provideopportunities forcritical observationof peers

Guidelines

- ➢ Ifyouplantouseroleplayingasagradedexercise,introducesmall, non-graded role plays early in and during the semester to help students prepare for a larger role play which will be assessed.
- ➢ Determinehow the roleplaywillbeassessed:
  - ✓ willobservers begivenanassessment rubric?
  - ✓ Willobservers'remarksandscoresbesharedwiththerole players?
  - ✓ Willtheobservers'scoresbeincludedwiththeinstructor's

scores?

- ✓ Willtheroleplayersbegiventheopportunitytorevise and present the role play again?
- ✓ Willobserversbetaughthowtoproperlyassesstheperformance (include meaningful feedback that is not purely judgmental but rather justify all remarks that are practical and unbiased)?

- ➢ Instructstudentsthatthepurposeoftheroleplayistocommunicate a message about the topic and not focus as much on the actual person acting the role.
- ➢ Tieroleplaystolearningobjectivessostudentsseetheirrelevance to course content.
- ➢ Allow time for students to practice the role play, even if it is spontaneous,sotheywillbeabletothinkdeeplyabouttheroleand present it in a meaningful way.
- ➢ Reducelargechunksofcontentintosmallersectionswhichcanbe more effectively presented as a role play.
- ➢ When assigning a role play, explain its purpose and answer questionssostudentsareabletoproperlypreparetheexercise.
  - ✓ Provideguidelinesabout contentto include:
  - ✓ generalpresentationbehavior(eyecontact,gestures,voice projection);
  - ✓ useofprops; and
  - ✓ specificlanguagetobeused(content-relatedvocabulary) and language not to be used (profanity, slang).

Simulation

Simulation is a controlled representation of reality. Simulation means role- playing or rehearsal in which the process of teaching is carried out artificially. Simulated teaching is a teacher training technique. It is used to bring about modification in the behavior of the teacher. It introduces pupil teacher to teach in non-stressful conditions.

Simulated teaching is used prior to the classroom teaching practice with the objective of developing a specific skill of communication. It can be used for pre-service teachers to make them effective.

In simulated teaching, one pupil-teacher acts as a teacher and other teacher trainers act as students. The teacher in this situation teaches considering the student as school students.Basic Assumption

- ✓ Teacherbehavioris modifiablebytheuseof feedback device.
- ✓ Theunderlying skillof teachingcan bemodified and practiced.
- ✓ Teacherbehaviorcanbe identified.

Characteristic

- ✓ Thistechniquerequiresverysystematicplanninginadvancethat ensures attainment of desired goals.
- ✓ Thismethodiseffectiveforthepracticeofteachingskillsby pupil teacher.
- ✓ Thetrainingisprovidedinartificialsituations.Throughmock trails learns are fully trained to face real situations.
- ✓ Through feedback drawbacks are noted in teaching, they are pointedoutalongwithappropriatesuggestionstorectifythem.

Procedureofsimulatedtraining

Followingarethesixstepsthatareusuallyfollowedinsimulated teaching.

(1) Assignment ofrole:-

Thestudentteachersareassignedtherolesofteachersandobserveresp. It is done rotation basis.

(2) Decidingskill to bepracticed

At this stage, the skill to be practiced is decided and planning and preparation for it are done. Each trainee selects the topic according to his interest and intelligence.

(3) Preparationofworkschedule

At this stage, it is decidedwhowill teach first and whowill observeand how everyone would be teaching /observing one by one.

(4) Determiningtechniqueofobservation

In this stage, the decision is taken about the type of observation technique to be adopted. It also includes which type of data is to be collectedandhowthese data aretobe intercepted.

(5) Organizationoffirstpractice session

Thefirstpracticesessionisstartedanditsobservationsarerecordedfor judging the teaching behavior.

Thisfollowed byfeedback andsuggestionsforfurther improvement.

6)Alterationofprocedure

The whole procedure is changed at this stage. There is a change of teacher, change of observers, change of teaching skill and change in topic to be taught. Every student is given the opportunity to play therole of teacher, a student, and a teacher

Precautionforsimulatedteaching

- ✓ Pupilsforthesame subjectshould goforpractice.
- ✓ Eachpupil-teachershouldbeprovidedwiththeopportunityto play the role of teacher, student, and an observer.
- ✓ Forpracticepupil-theteachershouldpreparemicro-lesson plan.
- ✓ Attheendofthesessionthereshouldbeadecisionfor diagnostic processes.

Advantageof simulated teaching

- ✓ Itisforexperiencingproblemsituation.
- ✓ Thistechniquehelpsus inacquiringsome classroom manners.
- ✓ Theuseofthistechniqueenablesustostudyandanalyzethe teaching problems.
- ✓ Self-confidenceinteachingdevelopersthroughsimulated teaching.
- ✓ Thistechniquehelpsinexplainingthebehaviorproblemsinthe classroom and contributes to its solutions.
- ✓ Thistechnique makesapersonmoreawareof the role.
- ✓ Itbridgesthegapbetweentheoryandpracticeof teaching.

- ✓ Itprovidesthemwiththereinforcementtodevelopvarious teaching skills.

Limitationofsimulatedteaching

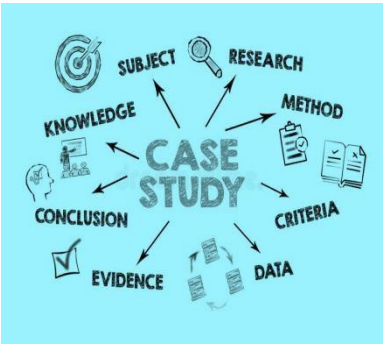
- ✓ Itsuse cannot bemadeinallsubjectsofthe curriculum.
- ✓ Thismethodrequiresalotofpreparationonthepartofthe teachers which they might not be ready to take.
- ✓ Theobserver whois doingthe role,mayincorrectlyreading.
- ✓ Forbeginners,itmaybedifficulttopracticeafewteaching skills such as questioning,
- ✓ Noemphasisisgiven toteachingthecontent.

Incidentmethod

CaseStudy method

Casestudyprovidesasystematicandscientificwayof perceiving or examining events, collect data, analyses information, and prepare a report. Psychoanalyst Sigmund Freud used case study method toassisthissubjectsinsolvingpersonalityproblems.Thedetailedaccountsofi nterviewswithsubjectsandhisinterpretationsoftheir thoughts, dreams and action provide excellent examples of case studies. Thecasestudyapproachisbasedonreality.Someofthese studieshavebeenconductedinschoolenvironment,whichhavemostly centeredonbehavioural problemsofchildren.

Observation, interviews, psychological tests and inventories havebeenusedforcollectingrelevant data about the case or cases. However, subjective bias is a constant threat to objective data gathering and analysis techniques.



Criteriaforselectionof case study

For selection of cases for thecasestudy,weoftenuseinformation oriented sampling. Our cases are based on this only information, which is mostly based on the extreme cases or typical cases. The average case is often not the richest in information.

Extremeor a typical case revealsmoreinformationbecausethey activate more basic mechanisms and more actors in the situationstudied. In addition, from both understanding oriented and action oriented perspectives, it is often more important to clarify the deeper causes behind a given problem and its consequences, than to describe the symptoms of the problem and how frequently they occur, etc.

Threetypes ofinformation oriented casesmay be distinguished:

- Criticalcases
- Extremeordeviant cases
- Paradigmaticcases

Typesofcasestudy

Therearefourtypesof casestudieswhich are

- ✓ illustrativecase studies
- ✓ exploratorycase studies
- ✓ cumulativecasestudiesand
- ✓ criticalinstancecasestudies.

IllustrativeCaseStudies:

These are primarily descriptive studies. They typically utilize one or two instances of an event to show what a situation is like. Illustrative case studies serve primarily to make the unfamiliar familiar and to give readers a common language about the topic in question.

Exploratory(orpilot)Case Studies:

This type ofcase studies performed beforeimplementing alarge scaleinvestigation.Theirbasicfunctionistohelpidentifyquestionsand select types of measurement prior to the main investigation. Theprimary pit fall of this type of study is that initial findings may seem convincing

enough to be released prematurely as conclusions.

CumulativeCaseStudies:

These serve to aggregate information from several sitescollected at different times. The idea behind these studies is the collection of past studies will allow for greater generalization without additional cost or time being expended on new, possibly repetitive studies.

Stepsforcasestudy

Thefollowing steps areused in theconductofacasestudy:

Step1.Determiningthepresentstatusof the caseorcases

The first step is to determine the present status of the case or cases through direct observation. In addition to physical examination of the case or cases, a psychological evaluation is required to determinethe general ability level etc. For example, to make a case study of a 'slow learner', the first thing to do is to determine the present status of the child by making an assessment of his physique cognitive factors through direct observation and psychological test.

Step 2. Identifying the most probable antecedents of the case or cases

Determining the most probable antecedents of the case or cases is the next important steps. This information helps in formulating a workable hypothesis or a set of hypothesis. For example, in case of 'slow learner' cited in Step 1, the researcher may formulate ahypothesis that occurrence of slow learning behaviour in the child isdue to unhealthy have environment, bad study habits and poor teaching in the school.

Step3.Verificationof Antecedents/Hypotheses

The case is then checked for the presence or absence of the antecedents supposed to apply to situation of under study. For example, the behaviour of slow learning of the child. This involves multi-method approach, which includes observation, past history of the case,interview etc.

Step4.DiagnosisandRemedialMeasures

After the verification of the antecedents or hypothesis (es , the next step is directed towards the diagnosis of the causes (example, causes of slow learning) and suggesting remedial measures in the light of the causes.

Step5.Follow-upofthecaseorcases

Thelast stepofthecasestudy is thefollow-up ofthecase(es)to study the impact of remedial measures. If impact is positive, the diagnosis is taken to be correct.

Ways of case studies There are different ways of using case studies, which are given below:

Writinganalysisofcasestudy

The most careful analysis of a case study is probably obtained whenitismadein writing.Casestudies can beusedas termpaperswith other related readings and bibliographies.

Panelof experts

Although group members miss the advantages of participation, listening to a panel of experts a case may be useful especially as an introduction to the case method. A variation of this technique would be to bring in a panel of experts to analyses a case after a group hadalready done so.

Analysisof similarcasestudies

Case Study Another variation of case discussion is to collect from the group members incidents from their experience similar to the case under consideration. Generalizations drawn from the case under consideration may carry over to the experiences of other members.

Cross examination

By cross examination group members with questions preparedin advance, they will discover that it is necessary to do careful thinking and preparation before entering into case study. This technique, especiallyappropriateforusewithcasescontainingagreatdealof

detail, gives the researcher many opportunities to ask individuals to defend their points of views in terms of the data presented.

Gamingandprioritization exercises.

There are many subject areas that can be gamified; however, games can be particularly helpful when teaching students science-based lessons. Educators can use two primary methods to gamify a particular subject or curriculum. Teachers can incorporate science-based games into their curriculum, or they can find ways to create a game-like experience within the structure of the coursework. The first method, adding games into the curriculum, can be easier for teachers to incorporate into lesson plans.

There are many types of games available that can be used in the classroom to enhance student learning including video and boardgames. For teachers that are looking to add free science-based video gamestotheircurriculum,theEducationalGamingEnvironmentsgroup has three available:Impulse, Quantum Spectre, and Ravenous.

During class, students can play games related to instruction about physics concepts with 'teachable moments' as students encounter challenges.Teacherscan utilizeasimilardesign withanyrelevantgame by organizing lessons to allow time for playing games and provide corresponding instruction on the topic.

For educators interested in modifying their course structure to incorporate game elements, there are several components to consider including competition, rewards, levels, cooperation, and feedback. In this scenario, students used an iPad with the 3D Game Lab platform to obtain experience points and badges, while competing against themselves to complete quests. The course material was incorporated into the platform and multimedia was added for students to view at various points within the quests.

Additionally, the 3D Game Lab platform utilized scientific terminology within the game's structure to reinforce the curriculum.

- ✓ First, students will need to be trained on how to use the technology that will be necessary for the games.
- ✓ Second, consider developing the curriculum into a series of assignments or activities that build upon each other.
- ✓ Third, offer students the opportunity to choose between assignments and have some control over their own learning.
- ✓ Finally, implement assessment strategies that are low-risk for students.
- ✓ Provide students with frequent assessments that offer opportunities for additional practice and repetition until proficiency is achieved.
- ✓ When teachers implement these strategies students will be more focused on learning the material and attain a higher level of proficiency.

When teachers gamify their curriculum, they should ensure that games are incorporated into instructional activities using a design that allows students to learn concepts at their own pace, receive feedback on progress, and provide repetition. When adapted correctly, gamification can provide many benefits to student learning including engagement, collaboration, and the acquisition of twenty-first-century skills that are necessary for a successful introduction into the workforce.

Teachers at any level can gamify science with a few modifications to their lesson plans. The key for gamifying any lesson is that it should be fun for the students. When students are engaged with the material, knowledge acquisition will occur more easily as students begin to enjoy learning.

Taking a step back, gamification refers to the application of gaming components to other aspects of life. When properly implemented, strategies associated with gamification in education may yield incredible benefits. Cognitive development, student engagement, accessibility,homeworkcompletion,classroomenjoyment,and

teachingfeedbacktimes allcan experiencesignificantboosts.Thatsaid, these possibilities would remain just that unless the basic successfactors are met, which include:

- ChallengesStudents
- TeachesStudents
- EntertainsStudents
- FocusesStudents

In order to take proper advantage of all that gamification in education has to offer, you should consider doing so in the ways that have been proven effective. With that in mind, 6 of those ways have been elaborated upon below.

1. **IntroduceCollectibles**

When it comes to gamification in education, this concept is applied to the classroom. For example, when a student masters the use of Microsoft word, they may receive a badge. Conversely, these badges may reflect long-term achievement, such as when a student receives their 10th perfect score on a quiz. Oftentimes, these collectibles are tracked by way of programs built into class' interactive technology.

2. **Point-basedRewards**

When it comes to gamification in education, think about everything that must be done in the classroom – take notes, get good grades, stay quiet, do your homework, and so on. In that regard, considerapplyingapoint-valuetoeachperformed task.Ifastudentgets an A, then they get 5 points. If they turn in their homework on time,then another 3 points go their way. Once students acquire enoughpoints, they can then use them to earn certain privileges, as set by the teacher. Forinstance,30 pointsmayallowthemto skipone assignment, while 50 points will let them eat a snack during class.

3. Grading viaAccomplishment

Returning to gamification in education, those teachers applying itsstrategiesshouldthinkofPac-Manwhendevisingtheirgrading

structures. Therein, instead of focusing grades on the loss of points, focus it on the accumulation. In that vein, if a student receives an 8 out of 10 on a quiz, consider giving them a +8 instead of a -2. When it comes down to it, this method allows students to watch their final grade grow as the semester progresses, as opposed to watching it slowly decline.

4. At-homeWork

Teachers often struggle with motivating their students to complete their assignments. When it comes down to it, they need to want to do their homework, or else the pursuit may be fruitless. With gamification and interactive technology, students are exposed to a new, fun learning style that they may also want to experience and continue at home.

5. **Competefor Participation**

In the analogy classroom, certain less-than-motivated students may ask themselves, "what's the point?'. That is where gamification in education comes in. Just like incentivization, competition and the prospect of victory have proven to be excellent catalysts for improved student engagement and participation. If a class needs to review for an upcoming test, for instance, then a team-based version of Jeopardy should yield desirable results.

Play Games

At its core, gamification in education, or in any other setting, is nothing without the games that make it up. That is why games are so integral to the gamification process. Just because gaining aspects are integrated into classroom management does not mean that it will automatically be fun. No matter what, consideration still needs to be paid toward the implementation of each activity and process.

GettingStarted in Turning Lessonsto Games

Try out a few ideas illustrated above to help your students get motivatedinthesubjectmatters.Getthemupandparticipatinginthe

lesson. Challenge their minds with a little competition. That is what gamification is all about in education.

GamificationinHigherEducation?

Games, in any form, increase motivation through engagement. Nowhere else is this more important than education. Nothing demonstrates a general lack of student motivation quite like the striking high school dropout rates: approximately 1.2 million students fail to graduateeachyear .Atthecollegelevel,56%ofstudentscompletefour- year degrees within six years. It's argued that this is due to current systemic flaws in the way we teach; schools are behind the times. It's beenproven thatgamifyingotherserviceshave resultedinretentionand incentive.

Gamification in grading:

Students' letter grades are determined by the number of points they have accumulated at the end of the course, in other words, by how much they have accomplished. Because of the extracurricular interests of the current college-age generation attributes success to the fact that "the elements of the class are couched in terms they understand." Students are progressing towards levels of mastery, as one does in games. Each assignment and each test feels rewarding, rather than disheartening. Using experience points allows educators to align levels with skills and highlight the inherent value of education.

Award studentswith badges:

For each assignment completed, award students with badges. This may seem like a regression back to Kindergarten stickers of gold stars.Asstudentswatchinstructionalvideosandcompleteproblemsets,
award them with points and badges to track progress and encourage perseverance.

Integrateeducational videogames intoyourcurriculum:

The use of games allows students to fail, overcome, and persevere. Studentsaregivenasenseofagency—ingames,theycontrol

the choices they make, and the more agency students have, the better students do. Instantaneous feedback and small rewards are external motivators.

Implementaclass-widerewardssystem:

Encourage camaraderie among students by setting up a rewards system where students achieve something as a team. For example, set a goal of 80% of the class passing an exam. As a reward, give the entire class bonus points. That way, students are working to master the material together instead of competing, and the highest-achieving students will help those around them.

Gamifyhomeworkassignmentstoencourageinformal learning:

Ultimately, educators hope that games translate learning into informal environments. Theresimply aren't enough hours in the day for an educator. Games allow the curiosity—and the learning—to continue after the bell rings.

AdvantagesoftheGamifiedClassroominHigherEducation

Increases Student Engagement

Studies have shownthat students are more likely to spend time playingalearning-basedgameifyouareusingarewardsystem.Badges and points help translate the work the student is completing into a tangible benefit. By increasing engagement you'll also see a rise in learning retention through gamification of learning. Students will be able to relate to the content easier through practice than just reading or watching a lecture.

CreatesEnthusiasm

Gamified learning can be used to foster feelings of enthusiasm towards the subject-matter, especially in subjects that students struggle with,likemath.Bycreatingagamifyinglearningwithrewards,students are becoming excited and competitive while learning through**quizzes, polls** and other collaborative learning methods with their peers.

Provides InstantFeedback

Most gamification apps or systems allow for instantaneous feedback such as leaderboards and dashboards, which students can use to see where they stand among their peers. This information can push a student to try the quiz or activity again to get a higher placement and creates motivation for further lesson engagement.

MakesSocial Connections

In higher education we often find that students have trouble creating social connections with other students in their courses. Gamifiedclassrooms,seatedandvirtual,helpstudentswhohavetrouble with social interactionand give them a reason to work together. This is especially true if you create team competitions that require students to collaborate on challenges.

DisadvantagesoftheGamifiedClassroominHigherEducation

Decreases Student Attention Span

Critics of gamified learningbelieve that the fast pace and immediate feedback creates a problem with student attention span. Students may begin to expect the same kind of responses from all parts of their education and won't find it, leading to frustration.

Cost

Thecosts of gamified learningare varied based on the type of system you are using. There may be equipment costs, software costs, and training costs for instructors. Sometimes these costs are passed on the students through registration fees and course codes that must be purchased, creating a higher barrier for entry into the classroom. There are often support or maintenance related costs for system that are delivered online or are hosted in your campus environment.

StudentAssessment

Whenchoosingagameitisnotoftenclearhowtheresultsofthe gamified learning activity will tie into your course assessment. While most games have a built-in way to track progress, you will need to findawaytotranslatethestudent'sgameprogressintofulfillobjectives.It

is not always easy to find a good fit between the games on the market and your course materials so this can be a time-consuming process.

Game Logistics

Manytimes,settingupagameforyourcourserequiresalot ofprior planning and logistics. Questions you need to ask are: Will students be able to play the game at home? Is there an additional cost if they use it outside of the classroom? Are there are enough computers available for students to play the game in class?Do I want to use class time for students to pay the game? Most of the time you will need to sit down and play the game yourself all the way through, which can take about 40 hours, before you fully understand the game and objectives.

Gamification Apps and Tools

Gamifyingyourhighereducationclassroomthroughonlinetools and platforms can help engage your students course content and helps them conenct with their classmates on a deeper level. Here, we share some tools that help you bring enthusiasm, connection and competition to your course.

Kahoot: Kahoot allows instructors to design their own multiple-choice quizzes for both formative assessments and informal quizzes. To participate, students answered timed questions, where they are ranked based on their speed and accuracy. It can be accessed via the Kahoot! app or web browser.

TEDEd:TEDEd houses hundreds of educational videos \with an accompanying app where instructors can create interactive videolessons based on their course concepts, with quizzes, discussionsprompt and other activities.

Gimkit: Gimkit gives instructors the opportunity to create their own gameshows that students can answer on their own devices. Working at their own pace, students work question sets until they reach mastery to ensure they've fully comprehended course concepts.

GroupControlledInstruction:

Concept

When instruction is organized in such a manner that students carry out the instructional activities together in a group it is called GCI Group Controlled Instruction. GCI is based on the fact that every member of the group actively participates in the instructional activity.

Learning takes place due to interaction among the group members and learning by doing work in the group with the support of each other. Thus, learning in this mode of instruction is controlled bythe interactive climate generated by the group working as a team with mutual support.

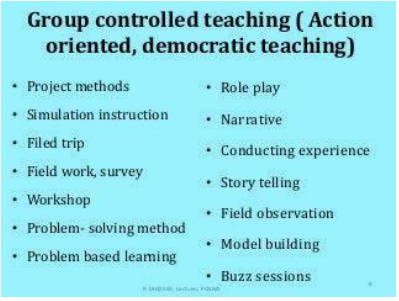
Definition

Group Controlled Instruction may be defined as the mode of instruction wherein learning is dependent on group interaction ormutual support of group members. You might have noticed that in this type of instructional method. The group takes up the responsibility of organizing learning tasks.

3**.3.ImportanceofGroupControlledInstruction**

Both the teacher-controlled instruction and the learner-controlled instruction are effective modes of instruction mainly for cognitive and skill development of individuals. In these modes of instruction the individuals develop a feeling of competing with one another,defeatingoneanother.Itspoilstheinnocentfunofchildrenand of young students. It also does not educate students on how to lead a harmonious life in the society.

Therefore it is important to supplement these two modes of instruction with group-controlled instruction. Group controlled instruction provides deeper understandingofknowledgethrough



participationingroupworkincluding discussion.

It develops the power of expression critical thinking, tolerance, belongingness, trust, team spirit, habit of helping each other, etc. Thus, Group Controlled Instruction can help prepare knowledgeable and skilled human beings who could support a society with democratic values leading to harmonious life, prosperity and happiness.

.TypesofGroupControlledInstruction:

Group controlled instruction is of two types, one involving interactive sessions which you have just gone through and the other based on group activities involving team work. In this section you will study those activities which involve team mode and the process of their organization.

These activities can be organized regularly for various subjects like math, science, social studies and languages. Considering the nature and the procedure of organizing these activities, there are three methods of learning involving team work, viz., cooperative learning, group project and group investigations. Let us discuss each of these methodsin detail.

GroupInteractivesessions,

Elements of Interactive Sessions

To organize an interactive session in a secondary or senior secondary schooleitherallthestudentsoftheclasscantakepartinaninstructional taskasagrouportheclasscanbedividedintosmallergroups andgiven separate activities to work on. There are four main elements of the interactive sessions:

- Chairperson
- SpeakerParticipants,and
- Recorder
- Insuchagroupactivityonemember fromthegroupischosenas the chairperson or coordinator of the session.

The person conducts the proceedings of the session. The coordinator need not necessarily be the teacher or an expert. One of the students (group members) may act as the coordinator. The coordinatoris oneoftheimportant elements in an interactivesession. It mayalso be noted that students cannot take part in discussion until they have some briefing about the topic. Therefore, it is essential that you should make the students aware of the instructional activity and present a brief note according to the requirement. This member of the group is called the speaker and is the second element of interactive session.

Meaningful interaction can take place only when individual members of the group participate in the discussion. All members of the group are participants in the interactive session. These participants are thethirdelement ofthesession. Theproceedings ofthesessions maybe systematically observed and recorded by a member. This person is called the observer or the recorder and (s)he is fourth element of the interactive sessions.

Pre-interactiveSession Activities

For organizing interactivesessions at the secondary school stage one should keep in mind that our students are not trained in organizing group-controlled instruction. The seating arrangements in our classrooms are also not suitable for interactive sessions.

The importance of interactive sessions has not been adequately realized: because of this interactive sessions are seldom organized inour schools. Due to these reasons organizing interactive session can bea challenge for you as a school teacher.

Accept the challenge; you will be successful if you systematically follow the steps of organizing interactive sessions. We present here the steps you should follow while organizing group interactive sessions in your class. These steps are suggestive and .you can modify them to suit the requirements of your students.

InstructionalSystem

Assign separateweightagetointeractive sessions:

In order to organize interactive sessions, it is necessary that the activity should be considered important in the school time table. This willgivelegitimacyand dueweightagetointeractivesessions.Thiswill also makeit a compulsoryactivity for all he students in yourcourse and will develop seriousness on the part of teacher and students.

Allocation oftopics:

You should allocate the topic(s) to the students so that they can prepareforpresentation.It isbettertogivestudentsonlyasmallportion which they can prepare and present in about 20 minutes. Lengthy topics should be presented by different students. You may also suggest some reference books to the students.

The work of topic allocation may be taken up just after the reopening of the school, within first 10-15 days. This will enable students to prepare their topics in time to start interactive sessions at an early date, so that each student may get a chance to present. As a teacher, you should keep a record of the portions allotted to various students.

Decidethe datesof presentation:

The dates of presentation should be fixed for each student in the beginning itself. This may be notified also. Students may be asked to prepare the write-ups in advance. More confident and capable students should be given early dales.

Guiding and motivating students for preparation of write-ups:In ordertoensurethateverystudentpreparesawrite-up,youshouldencourage students to start work immediately, such as reading books on the topic, etc. You should guide the students regarding reference books andalsointhepreparationofwrite-ups.Providingcontinuous motivation to the students may be essential for you as a teacher.

Makingseating arrangement:

You should remember that an interactive session requires a seating arrangement of the kind that enables all participants to see and listen to each other. For this reason circular arrangement is the most effective.

The school should ideally have a room where furniture is arranged in a circular form. This room could be utilized by different classes during different periods. But, providing a room exclusively for this purpose may be difficult for many schools.

It is, therefore, suggested that such room should be optimally used for various curricular and co-curricular activities in the school. Reshuffling of furniture is also easy in the same class.

Orientationofthe students:

For conducting effective interactive sessions at school, you should orient your students about the interactive session. You should state the purpose of the interactive sessions. You should clearly inform the students what they are expected to do during the interactive session.

You should also tell them that they will be evaluated on thebasis of the write-ups they prepare, presentation they make and their participation in the discussion. The students, therefore, should know their role and the process of evaluation.

Circulatingwrite-ups:

An interactive session requires that the student should prepare a write-up which may be brief or a detailed one. The write-up may be circulated among all the participants one or two days in advance so that they go through it and come prepared in the session. This responsibility may be assigned to the student who has to make the presentation.

Demonstrationinvolvingteamofteachers:

At the school stage, it is necessary that the fist presentation should be made by the teachers. The chairperson and recorder also may heteachers.Thestudentsshouldbeencouragedtotakepartalongwith

the participating teachers. Students should be asked in the beginning itself to observe the entire proceedings of the session so that later on they can conduct the sessions independently in the same manner.

ConductingInteractive Sessions

Conducting an interactive session is the responsibility of the chairperson. In your class, it would be advisable that you should function as the chair person. School children may show a lot of hesitation in participating in group discussion.

Your initiative, encouragement and guidance will ensure meaningful interaction in the group. You can function as an elaborator, moderator and controller, once the students acquire confidence in them. They can be given responsibility to organize sessions independently. Nevertheless, your role in organizing group interactive sessions is very crucial.

Some of the important activities that you may have to perform are as follow:

Interactive sessions should be a regular instructional activity in the school. Once it becomes a part of overall teaching learning strategies, the students would develop necessary skills to actively participate in pedagogic interactions and acquire knowledge.

You can call upon the student who has to make presentationand introduce the topic raising one or two important issues to which the entiregroupmaypay attention. Forthis you should go throughthetopic beforehand.

After a brief introduction you should request the speaker tomake the presentation. As soon as the speaker completes the presentation, you should help the participants to recall, in a nutshell, the main points of the discussion.

As other students are not acquainted with group interaction, you should tell them some rules for participating in and learning from interactive sessions.

Someoftheseimportant rulesare as under:

i) Participants

Participants should raise theirhands beforeasking questions and wait for the chairperson's permission.

Allthequestions should beaddressed to thechairperson.

No participant will interrupt in another participant's talk and will speak only when the speaker has completed his presentation. In other words, students should take turns for speaking.

ii) Motivator:

- ✓ You may find that many students do not take active part in the discussion.
- ✓ At the school level it is mainly due to the reason that students in the beginning cannot gather up enough courage to speak in a group.
- ✓ Some students generally feel shy and hence with themselves from active participation in discussion. Some students do not interact because of the fear that they may commit mistakes.
- ✓ As a result, many students prefer to become just passive listeners.
- ✓ In order to ensure that every student participates in discussion, you should make some effort to motivate the students.
- ✓ You should invite, by name, those participants who are passive listeners and ask them whetherthey have anything to contribute.
- ✓ You should remain alert and read the facial expression of the individual student whether he/ she feels like asking questionsbut does not raise his/ her hand, Such students should be motivated to express their ideas.
- ✓ Youshould encouragethem toparticipatein discussion.
- ✓ You should be politein yourbehavior.

You should appreciate the views expressed by the students. This, inturn, will ensure their willing participation in the teaching-learning process.

iii) Facilitator:

- ✓ The students may expect you to clarify the issues and ideas, and occasionally raise questions when these are not clear to the group.
- ✓ You should summaries the ideas expressed by the participants. Sometimes when arguments and counter arguments start on a point of discussion and different participants give almost the same views, you can give your judgment and conclude, and ask the students to proceed to the next issue.
- ✓ But it should also be kept in mind that you should not become the main speaker; you should rather be an attentive listener than a compulsive speaker.

iv) Elaborator:

- ✓ At the school stage you may find that many participants face difficulty in expressing their ideas in proper words.
- ✓ They may not have mastery over the subject. Sometimes the participant may express a concept which is not correct.
- ✓ In such a situation you should elaborate the views expressed by the students.
- ✓ In other words, you should facilitate them in asking questions or raising points. You should clarify the questions which are not clear to the group.

v) Moderator:

As a moderator one requires the ability to moderate the time taken by the participants to express their thoughts, feelings, opinions, directions and suggestions.

You are required to moderate the overall environment of interactive sessionswithaviewtomaintainingthewarmthoftheinterpersonal

feelings and providing all participants a chance to take part in discussion. In order to provide each participant reasonable opportunity, you should decide the policy regarding organization of interactive sessions and inform participants about it in the beginning ofthesession.

- ✓ You should keep the total time allotted to the interactive session in mind and organize the session in such a way that everystudent gets a chance to express his/ her ideas.
- ✓ If the ideas expressed by a participant are novel, he/she may be permitted to speak a little longer.
- ✓ Repetitionoftheviews shouldbe avoided.
- ✓ At times, the points on which interaction is taking place may create tension and generate a few intense (if not bitter) feelings among participants.
- ✓ It happens in all such situations where participants tend to identify themselves with certain views. When such bitterfeelings are created, you should maintain neutrality and in your capacity as the moderator, you should mediate and sum up without hurting anybody's feelings.

vi) Controller:

- ✓ An interactive session can be considered successful when it is organized systematically and purposefully.
- ✓ At times the discussion goes beyond the context, in such a situation you should bring participants back to the main themeof discussion.
- ✓ You have to control and regulate the conflicting view points which arise due to dogmatic opinions of the participants.

Closingtheinteractivesession:

- ✓ You should close the session within the time allotted or whenthe participants have nothing more to contribute.

- ✓ Before closing the session, it is desirable that you should highlight and summaries the views and arguments expressed during the discussion.
- ✓ For this purpose, you should take notes during the session. You should also make some remarks on the conduct of the session as well.
- ✓ This may be done without any personal references and without hurting the feelings of participants.
- ✓ You should commend desirable behaviours and caution against undesirable ones.

InteractiveSessionsConductedbyStudents

- ✓ When group controlled instruction becomes a regular feature in your school, you may find that one period is too small for an interactive session.
- ✓ It would be essential to divide the class into smaller groups and discuss the assigned topic or the problem in a more satisfactory manner. This arrangement will ensure that all the students take part in discussion.
- ✓ In a small group, students themselves cad choose one of them as the chairperson who will take the responsibility of conducting the session.
- ✓ In the absence of the teacher some students who otherwise do not take part in discussion due to fear of committing mistakes, etc. may take part in the discussion.

However, such an arrangement should be made only when the students have observed 8-10 interactive sessions chaired by you.

It would also be advisable that in some sessions you should be presentasaparticipantandallowthestudentstochairthesessions.Duringsuch sessions you should, however, guide the interaction and provide feedback to the chairperson. This would enable the students to conduct the interactive session by themselves.

Co-operativeLearning methods

In order to develop in students the skill of cooperation, belongingness and team spirit and to reduce individual competition amongst them, you should adopt the cooperative learning methods.

Cooperativelearningisnotindividuallearningbut groupor peer learning. In cooperative learning, students work together to achieve a common goal. There is greater participation and involvement of the students in cooperative learning.

Cooperative learning generates more intrinsic motivation than does individualized learning. The feeling of belongingness produces positive attitudes and team spirit in the students.

Cooperative learning is specifically useful for learning various skills and knowledge. You should, therefore, be familiar with the processoforganizingcooperative learninginyourclassorschool.

ForThespecificactivityyouhaveto analyse as follows:

a) **Formationofgroups:**

You should divide the class into small groups. While forming groups,you should keep in mind the heterogeneityamongstudentsinrespect of sex, intelligence, religion, etc. Each group should consist of a cross-section of the class: boys, girls; above average, average and below averagestudentsin terms ofintelligence.You shouldtrytoform groups by including students from different communities.

b) **Preparationofcooperativelearningsheets:**

You should prepare these sheets for all the topics to be taught through cooperative learning. These learning sheets consist of objectives,activitiestobedonebythegroupmembersinaccordance

with. The content of the topic and evaluation items based on the objectives.

c) **Orientationtothe students:**

As students are used to working individually, they have to be oriented properly to work together. You should inform them about how cooperative learning will be organized. Every learning point should be discussed collectively.

A student who does not understand could be explained well by another student. They should work as a team to achieve the set goals. They should be informed that they will not be evaluated individually; rather the entire group performance will be assessed.

The group as a whole should ensure that every individual members of the group learns every concept Average performance of the group will be the index of group learning or progress.

d) **Conductingthecooperativelearning session**:

You should allot time for cooperative learning sessions and distribute cooperative learning sheets to the groups. All groups should carry out learning activities according to guidelines given in the sheets. These learning sheets should provide flexibility to the students.

The students may mow the activities according to the requirement of the group members. They may discuss the problem, ask questions, explain concepts and solve problems according to their convenience.

Every member may be evaluated by the group. If a member commitsmistakes,hemaybehelped byothers. At thisstageyoushould observe how cooperatively the groups are working. You should give feedback for each group about whether they are proceeding in the right direction and gaining from the session.

Finally, the group should report about what they have done and how they have performed. The performance reported should be the average performance of the group.

Advantagesofcooperativelearning

In cooperative learning an informal situation is created based on mutual dependence, feeling of being-accepted, liked and supported by fellow students.

They have the freedom to explore their ideas, discuss with their friends and sharpen their thinking and actions, get help and provide support to others. Thus cooperative learning is quite advantageous to students.

Themainadvantagesof cooperativelearningareas follows:

- Students are often able to translate the teacher's language into their own language add enrich their understanding.
- Students learn by actually participating in the teaching-learning process.
- The students have to organize their thoughts to explain ideas to their mates.
- They engage themselves in cognitive elaboration that greatly enhances their understanding.
- Students can provide individual attention to and get assistance fromoneanother.Astheycanfreelyseekassistancefromfellow students in learning, their achievement will be much higher

Groupinvestigation,

At the school stage certain topics are such which raise doubts and questions in theminds ofthestudents and for thosethey do not find answers in the textbooks. To answer such questions requires investigation into the phenomenon.

Problems/questions whose answers are not readily available require investigation some of the problems are such that no individual student can investigate these by himself.

It is, therefore, desirable to carry out group investigation in such asituation.Theprocessinwhichagroupofstudentsselects

problems/questions and tries to find out their solutions collectively in a scientific manner is called group investigation.

Organizinga group investigation:

Inordertotakeupgroupinvestigationasaninstructionalactivity at the same stage and to make it successful your guidance to students is very much essential.

Do you know how a group investigation should be carried out?It is necessary for you, as a teacher, to know what are the different phasesthrough which group investigation proceeds.

A class engaged in a group investigation will through the following phases:

Selectionofproblem: Youmay indicatesomeexampleproblems andguidethegroupstoselectasuitablep roblemforinvestigation.

Cooperative planning: The membersofthegroupwillplantheir wok regarding collection of evidence,sourcesofevidence,and allocation of work among members. Theyshouldalsoestimate the time to be devoted to investigation work. Besides collecting data from various sources, the group should also plan about the data will be analyzed and who will do the analysis.

They should also decide the way the report on the investigation will be prepared. For each activity, time must be estimated Implementation: Work should be started according to the plan.

Every member should try higher best to complete the activities within the stipulated time. Evidence from all the sources and areas should be collected.

Analysis and synthesis:

The collected evidence should be analyzed and synthesized logically in order to arrive at valid results.

Preparationofreportandpresentation:

Abriefreport ofthe wokdoneshouldbepreparedbyeach group.

The report should include information about how the work was done and what findings were arrived at the report should not be of more than a few pages.

It should not be a very technical report but just a write-up which should be presented by the coordinator of each group.

Evaluation:

- ✓ You should evaluate the work of each team on the basis of your observation of the group's way of salving the problem.
- ✓ You should judge, art adequate and valid and solutions arrivedat are logical and based on facts.
- ✓ Youshould providefeedback to thegroup.

InstructionalSystem

- ✓ The group investigation, as a group-controlled activity, requires a lot of your guidance to be successful.
- ✓ The knowledge gained through this type of instruction promotes deeper understanding of how children learn in groups as well as individually.

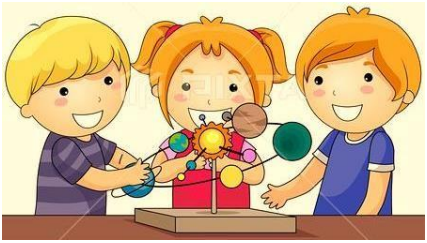
GroupProjects.

At the school stage there are several activities which cannot be completed by an individual and which require a group of students to work together.

For example, the activities presented below can be taken up as group projects:

- ✓ Presentationofmodelsofdifferenttypesofhousesina particular region of the country
- ✓ aModelsofhydro-electricpower generators
- ✓ aModels of differenttypes of dams

- ✓ a Plantation and care of house-hold plants
- ✓ Study of a country's location, climate, crops, people and industries, and presenting them in the form of charts, maps, etc.



- ✓ Preparationofmodelsof differentorgansofthebody
- ✓ Conductingmarketsurveys,etc.

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.

In a group project, students learn by developing collectively a plan of action related to the subject matter to be learnt through their whole-heartedinvolvementintheactivities.Thecourseofactionshould be complete in itself.

There are definite, but not rigid, steps to be followed in completing a group project work.

Steps in agroup project:

Agroupprojectinvolves thefollowingsteps:

Formation of groups: The whole class may be divided into small groups of 5-7 students, keeping in mind the heterogeneity criteria proposing: At this stage the decisions are made about what is to bedone.

The **objectives** of the project are stated explicitly. The students may need your guidance in selecting the project and stating its objectives.

Planning:

In group project various means to attain objectives are considered and the most appropriate means are selected Some action plan is also chalked out according to the group decisions.

Appropriate activities are identified and allotted to different members of the group.Project work is planned in such a way that involvement of all the members of the group is ensured.

Implementing:

Project activitiesshouldbecarriedout by the members of group according to the plan. Students should be encouraged to discuss their allottedactivitiesfrequentlyandhelpeachother incompletingtheiractivities.Thegroupasawholeshouldcomeout with a finished product or an accomplishment.

Evaluation:

The success of the group project should be evaluated on thebasis of the attainment of the set objectives. In addition, you should observe how closely and cooperatively the group has worked to accomplish the project and prepare a finished product.

It is also advisable to arrange an exhibition of the products and accomplishments and invite 1 or 2 teachers who could judge and evaluate the projects.