**Situated Learning**

* Humans are socially curious beings and learn mostly through social interaction with others.
* Learning does not take place in an individuals’ mind, it is situated in a context in which participation of individuals to the communities of practice plays a vital role on situated learning process.
* Situated learning occurs generally when an individual is not intended or planned to learn.
* Participation and doing take main place in situated learning.
* Situated learning take place when learning is specific to the situation in which it is learned.

**Problem Based Learning (PBL)**

* A learning method based on the principle of using problems as a starting point for the acquisition and integration of new knowledge.
* Students work individually and/or in groups to solve challenging problems that are authentic, curriculum-based, and often interdisciplinary

**Principles of PBL**

* Understanding is built through what we experience
* Meaning is created from efforts to answer our own questions and solve our own problems
* We should appeal to students’ natural instincts to investigate and create
* Student-centered strategies build critical thinking and reasoning skills and further their creativity and independence

**Characteristics of PBL**

* Learning is student centered.
* Learning occurs in small student groups.
* Teachers are facilitators or guides.
* Problems form the organizing focus and stimulus for learning.
* Problems are a vehicle for the development of problem-solving skills.
* New information is acquired through self-directed learning.
* Shifts away from short, isolated teacher centered lessons
* Integrates real world issues and practices
* Creates long term, interdisciplinary student centered lessons
* Teaches students to apply what they have learned to life-long activities
* Students confront (take as challenge) a problem
* In groups, students organize prior knowledge and attempt to identify the nature of the problem.
* Students pose questions about what they do not understand.
* Students design a plan to solve the problem and identify the resources they need.
* Students begin to gather information as they work to solve the problem.

**Advantages** **of PBL**

* Makes learning relevant to the real world.
* Moves learning from a passive activity to an active activity
* Learning becomes the act of discovery
* Increases motivation
* Students are more engaged, interested, and energetic learners as they make a personal investment in the outcome of their inquiry
* Motivation to learn is self-imposed
* Building of new knowledge on existing one (depth)
* Integration and application of knowledge (problem-solving)
* Wider coverage of the topic (big picture)
* Development of other skills (e.g. inquiry, critical appraisal (assessment), communication, group)
* Life-long learner

**Disadvantages** **of PBL**

* Lack of traditional structure and progression (development)
* Perceived lack of depth in the knowledge acquired
* Too much time is spent in a tutorial “talking”
* It is hard to fail a student
* You need more teachers

**Inquiry Based Learning (IBL)**

* Inquiry-based learning is a constructivist approach, in which students have ownership of their learning.
* It starts with exploration and questioning and leads to investigation into a worthy question, issue, problem or idea.
* It involves asking questions, gathering and analyzing information, generating solutions, making decisions, justifying conclusions and taking action

**Why must Inquiry?**

* Inquiry-based learning approaches when correctly implemented can help develop higher-order, information literacy and critical thinking skills.
* They can also develop problem-solving abilities and develop skills for lifelong learning

**Teacher’s Role**

* The teacher’s role in inquiry-based learning is one of ‘Guide on the side’ rather than ‘Sage on the stage’.
* The teacher scaffolds learning for students, gradually removing the scaffolding as students develop their skills.
* With young children or students new to inquiry it is usually necessary to use a form of guided inquiry.

**Characteristics of Inquiry Learning**

* Inquiry learning emphasizes constructivist ideas of learning. Knowledge is built in a step-wise fashion.
* Learning proceeds best in group situations.
* The teacher does not begin with a statement, but with a question.
* Posing teaching questions for students to solve is a more effective method of instruction in many areas.
* This allows the students to search for information and learn on their own with the teacher's guidance.
* The topic, problem to be studied, and methods used to answer this problem are determined by the student

**Application of Inquiry - Learning**

* Inquiry learning can be applied to all disciplines.
* Individuals need many perspectives for viewing the world.
* Such views could include artistic, scientific, historic, economic, and other perspectives.
* While disciplines should interrelate, inquiry learning includes the application of certain specific “ground rules” that insure the integrity of the various disciplines and their world views.

**Key Components of the Inquiry Process**

1. **Activating Prior Knowledge**

By bringing the students’ own background and experiences to the learning table, students will find ways to connect to the topic and will have activated some basis for creating meaning with the text they are reading.

The personal connection to learning increases a student's motivation to explore, read, and struggle with difficulties as they arise.

**2. Providing Background Information**

* Provide source material because student need to know something about the topic to be able to perceive and formulate meaningful inquiries, such us: articles, go to museum exhibits, listen to audio recording, or videos book primary source material-web site-photography.

**3. Defining Outcomes for which students will be held responsible**

* Inquiry: define problem question; find and gather data; analyze, compare, organize, and synthesize data; create a proposition; support proposition (facts, stats, examples, expert authority, logic and reasoning); propose solutions and action steps

**4. Modeling Design Product Outcomes (technology, art); Providing Frameworks**

* Show students a PowerPoint presentation, a web site, a proposition support framework, a museum exhibit, a choreographed dance performance, etc.
* Students need to see models of what it is they are being asked to do.
* They must have a supporting structure which provides a grounding for their creations, but doesn’t limit their creativity

**5. Establishing a general topic or inquiry**

* A broad problem question or topic provides students with a general focus for selecting more specific inquiries.

**6. Student teams conduct background research and define focused problem questions within broader inquiry or topic**

* Without a knowledge base or some degree of familiarity with the topic, it will be difficult for students to develop relevant inquiries within the broad topic area.
* Students need to be provided with background material and/or guided to research their own background material.
* This base will enable them to begin to formulate a big picture understanding of the broad topic area, and then to select a specific inquiry interest which connects to the broader topic.

**7. Establish and communicate inquiry presentation framework**

a) state problem question

b) develop proposition which can be argued

c) provide background information

d) support proposition with: facts, statistics, examples, expert authority, logic and reasoning

e) propose solutions and action ideas

8. Refer students back to expected outcomes and inquiry framework to create alignment between their presentations and intended outcomes.

9. Ask students a lot of questions to help them refine their thinking and guide their research.

10. Support technology (PowerPoint, Web Site, Hyper studio) and art design product creation.

11. Empower students to coach and train one another within their teams.

12. Provide a forum for student presentations which includes students, teachers, parents, and community members.

13. Provide vehicles for student participation in action projects which connect their learning to specific action.

14. Incorporate ongoing, meaningful peer and teacher assessment.

15. Reflect on what worked and what did not, and try it again.

**Remember to keep in mind**

* Teacher is a facilitator in IBL environment
* Place needs of students and their ideas at the center
* Don’t wait for the perfect question, pose multiple open-ended questions.
* Work towards common goal of understanding
* Remain faithful to the students’ line of inquiry
* Teach directly on a need-to-know basis
* Encourage students to demonstrate learning using a range of media

**Cooperative Learning (CL)**

* Cooperative learning is defined as “small groups of learners working together as a team to solve a problem, complete a task, or accomplish a common goal” (Artz&Newman 1990) .
* Cooperative learning is a successful teaching strategy in which small teams, each with students of different levels of ability, use a variety of learning activities
* To improve their understanding of a subject, each member of a team is responsible not only for learning what is taught but also for helping teammates learn, thus creating an atmosphere of achievement.
* Students work through the assignment until all group members successfully understand and complete it.

**Components of CL**

1. **Positive** **interdependence** (We instead of Me) a sense of working together for a common goal. Each member is affected by the actions of other group members. You cannot succeed unless they do. Their work benefits you and your work benefits them.

**2.** **Individual** **accountability** whereby every team member feels in charge of their own and their teammates’ learning and makes an active contribution to the group. Everyone’s effort counts.

**3.** **Face-to-face interaction** where learners explain, argue, elaborate and link current material with that they have learned previously.

**4.** **Collaborative skills:** Sufficient \ interpersonal \ social skills, involving an explicit teaching of appropriate leadership, communication, trust and conflict resolution skills so that the team can function effectively.

**5.** **Group processing**: team reflection, whereby the teams periodically (occasionally) assess what they have learned, how well they are working together and how they might do better as a learning team.

**When is Group Work not Cooperative Learning**

* The needs of a relatively low-preforming student are ignored.
* Some gifted students carry along the others.
* A group’s product earns a grade awarded to all students without regard to individual growth or participation.
* A group activity does not involve members in promotion of each other’s achievement.
* There is no instruction on how to work together effectively and how to evaluate effectiveness.

**Teacher’s Role**

**1. Before the lesson:**

* Make sure the learning objectives are clear.
* Decide on group size and membership.
* Determine the materials necessary for the group

**2. Developing students’ social skills:**

* Set rules for cooperating and ensure that they are implemented such as :
* Work quietly together on team assignment
* Ask for explanation not answers
* Listen carefully to teammate questions.
* Ask teammates for help if you need it.
* Help each other stay on task.
* Ask the teacher for help only if you have asked everyone on your team and discovered they cannot help

**3- Establish Good Teamwork** in which:

Team members are facing each other, desks or chairs are close to each other.

Team members have all material ready.

Every team member is working hard.

Team members are listening to each other.

Team members are asking “will you please explain?”.

Team members are saying “let’s see if each of us knows this.”

**Advantages of CL**

1. It promotes self-esteem and makes students feel better about themselves, school and others.

2. It promotes higher achievement, develops social skills including listening, taking turns, conflict resolution skills, leadership skills and team work skills.

3. It teaches students to cooperate with others and do their best.

4. It welcomes students to benefit from their classmates’ knowledge and thoughts.

5. It protects less capable students from impossible challenges.

6. It facilitates problem solving skills and creativity.

7. It leads to more relaxed atmosphere, greater motivation and increased student talk.

8. It makes student appreciate differences & diversity. It removes damaging competition between and among students and creates competition among groups.

9. It builds empathy i.e. understanding and appreciating the point of view and feeling of others, being considerate (thoughtful) of others.

10. It leads to equal and increased participation.

11. It creates the feeling that “Alone we are struck; in interaction we grow”.

12. It prepares students for the interdependent team based workplace of the 21st century.

**Disadvantages of CL**

* It is time consuming for new teachers
* Requires adequate facilities and infrastructure
* Can create confusion in the classroom

**Applicability of Cooperative Learning**

* Students demonstrate academic achievement
* Cooperative learning methods are usually equally effective for all ability levels
* Cooperative learning is effective for all ethnic groups
* Student perceptions of one another are enhanced when given the opportunity to work with one another
* Cooperative learning increases self-esteem and self-concept