UNIT –III : LEARNING IN 'CONSTRUCTIVIST' PERSPECTIVE

UNIT – 3 : learning in 'constructivist' perspective Distinctions between learning as 'construction of knowledge' and learning as 'transmission and reception of knowledge' – Social-constructivist perspective and applications of Vygotky's ideas in teaching – processes of construction of knowledge: Experiential learning and reflection, Social mediation, Cognitive negotiability, Situated learning and cognitive apprenticeship, Meta-cognition – Creating facilitative learning environments, teachers' attitudes, expectations – enhancing motivation, positive emotions, self-efficacy, collaborative and self-regulated learning.

LEARNING AS CONSTRUCTION OF KNOWLEDGE AS DIFFERENT FROM LEARNING AS TRANSMISSION AND RECEPTION OF KNOWLEDGE:

Reception is model of learning where there is transmission of knowledge from the external source (for example, teacher) to the receiver (students). So, learning here is being taught. The teacher gives students the concept and knowledge while students are only receiving it purely.

Transmission is Sending & Receiving messages, knowledge, signals. Which includes no scope for creativity, Rigidity and Generally method of teaching is Lecture Method.

Construction is totally different with transmission and reception because in this model, students construct by their selves the meaning of concept of knowledge through discussion, discovery, openended learning, making connections, etc. Here, learning means an individual sense-making.

Construction is totally different from reception because in this model, students construct by themselves the meaning of concept of knowledge through discussion, discovery, open- ended learning, making connections, etc. Here, learning means an individual sense-making. The students or learners may interact with other learners to collaboratively build knowledge.

Constructivism implies….

- Own meaning of concepts.
- Subjectivity in thinking.
- Learning outcomes vary.
- Creative outcomes.
- Flexibility and freedom in thinking.
- Students compare their own work with others.
- Learning while enjoying.
- Intrinsic motivation plays role.
- Generally methods of teaching are activity

Eggan & Kauchak (1997) "Constructivism is a view of learning that says learners use their experiences to actively construct understandings that makes sense to them, rather than have understanding delivered to them in already organized form".

In a Constructivist Classroom… Student autonomy and initiative are accepted and encouraged:

By respecting students' ideas and encouraging independent thinking, teachers help students attain their own intellectual identity.Students who frame questions and issues and then go about analyzing and answering them take responsibility for their own learning and become problem solvers.

The teacher asks open-ended questions and allows wait time for responses:

Reflective thought takes time and is often built on others' ideas and comments. The ways teachers ask questions and the ways students respond will structure the success of student inquiry.

Higher-level thinking is encouraged:

The constructivist teacher challenges students to reach beyond the simple factual response. He encourages students to connect and summarize concepts by analyzing, predicting, justifying, and defending their ideas.

Students are engaged in dialogue with the teacher and with each other:

Social discourse helps students change or reinforce their ideas. If they have the chance to present what they think and hear others' ideas, students can build a personal knowledge base that they understand. Only when they feel comfortable enough to express their ideas will meaningful classroom dialogue occur.

Students are engaged in experiences that challenge hypotheses and encourage discussion.

When allowed to make predictions, students often generate varying hypotheses about natural phenomena. The constructivist teacher provides ample opportunities for students to test their hypotheses, especially through group discussion of concrete experiences.

The class uses raw data, primary sources, manipulatives, and physical, interactive materials. The constructivist approach involves students in real-world possibilities, then helps them generate the abstractions that bind phenomena together.

SOCIAL – CONSTRUCTIVIST PERSPECTIVE AND APPLICATIONS OF Vygotsky's ideas in Teaching:

Process of construction of knowledge:

1. **Experiential learning and reflection**

Experiential learning is the process of learning through experience, and is more specifically defined as "learning through reflection on doing". Experiential learning is distinct from rote or didactic learning, in which the learner plays a comparatively passive role. It is related to but not synonymous with other forms

of active learning such as action learning, adventure learning, free choice learning, cooperative learning, **and** service learning.

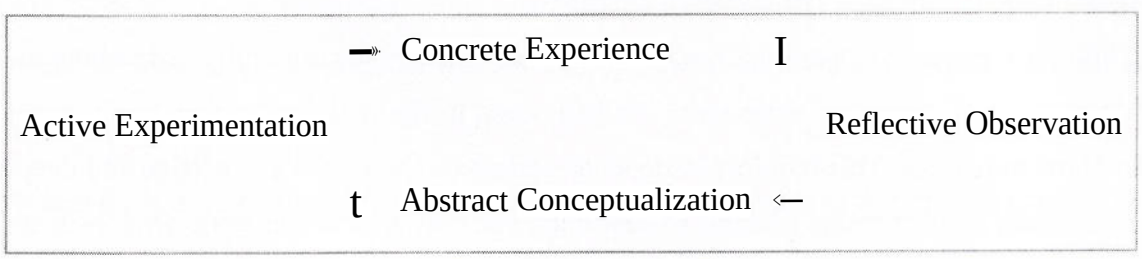
Experiential learning

Kolb experiential learning model

Experiential learning focuses on the learning process for the individual. One example of experiential learning is going to the zoo and learning through observation and interaction with the zoo environment, as opposed to reading about animals from a book. Thus, one makes discoveries and experiments with knowledge firsthand, instead of hearing or reading about others' experiences. Likewise, in business school, internship, and job-shadowing, opportunities in a student's field of interest can provide valuable experiential learning which contributes significantly to the student's overall understanding of the real-time environment.[7]

A third example of experiential learning involves learning how to ride a bike,[8] a process which can illustrate the four-step experiential learning model (ELM) as set forth by Kolb[9] and outlined in Figure 1 below. Following this example, in the "concrete experience" stage, the learner physically experiences the bike in the "here-and-now".[10] This experience forms "the basis for observation and reflection" and the learner has the opportunity to consider what is working or failing (reflective observation), and to think about ways to improve on the next attempt made at riding (abstract conceptualization). Every new attempt to ride is informed by a cyclical pattern of previous experience, thought and reflection (active experimentation)

Figure 1 – David Kolb's Experiential Learning Model (ELM)



Elements of experiential learning

Experiential learning can exist without a teacher and relates solely to the meaning-making process of the individual's direct experience. However, though the gaining of knowledge is an inherent process that occurs naturally, a genuine learning experience requires certain elements. According to Kolb, knowledge is continuously gained through both personal and environmental experiences. Kolb states that in order to gain genuine knowledge from an experience, the learner must have four abilities:

- The learner must be willing to be actively involved in the experience;
- The learner must be able to reflect on the experience;
- The learner must possess and use analytical skills to conceptualize the experience; and

> The learner must possess decision making and problem solving skills in order to use the new ideas gained from the experience.

Importance of Experiential learning

Experiential learning teaches students the competencies they need for real-world success. The pub.:: is clamoring for an education that teaches students the competencies they need for real-world success. Although we can simulate the real world in the classroom and laboratory, authentic experiential learning creates an invaluable opportunity to prepare students for a profession or career, learn the craft of a fine artist, or discover how the discipline creates evidence to contribute to its body of knowledge. Thus. Sullivan and Rosin (2008) argue that the mission for higher education should be to bridge the gap between theory and practice and Bass (2012) suggests that to do this, the educational environment needs to intentionally create rich connections between the formal and experiential curriculums. Particularly at a research university, we have a responsibility to create situations where students benefit from the abundance of research that is taking place. Experiential learning provides one approach to ameliorating this criticism and mining the richness of the research taking place at the university.

Experiential learning motivates students.

Experiential learning provides the conditions for optimally supporting student learning. When students are engaged in learning experiences that they see the relevance of;,they have increased motivation to leam. Students are also motivated when they are provided opportunities for practice and feedback.Experiential learning meets these criteria (Ambrose, et. al., 2010).

Experiential learning creates self-directed learners.

Through experiential learning, students are confronted with unfamiliar situations and tasks in a real-world context. To complete these tasks, students need to figure out what they know, what they do not know, and how to leam it. This requires students to: reflect on their prior knowledge and deepen it through reflection; transfer their previous learning to new contexts; master new concepts, principles, and skills; and be able to articulate how they developed this mastery (Linn, et al., 2004). Ultimately, these skills create students who become self-directed, life-long learners.

SOCIAL-CONSTRUCTIVIST PERSPECTIVE AND APPLICATIONS OF VYGOTKY'S IDEAS IN TEACHING:

Lev Vygotsky, the Russian psychologist, died young at 37 in 1934, but is as influential as any living educational psychologist. In *'Thought and Language'* and *'Mind in Society'*, along with several other texts, he presents a psychology rooted in Marxist social theory and dialectical materialism. Development is a result two phenomena and their interaction, the ‘natural’ and the ‘social’, a sort of early nature and nurture theory.

Social constructivism

Ultimately the strength of Vygotsky's learning theory stands or falls on his social constructivism, the idea that learning is fundamentally a socially mediated and constructed activity. This is a detailed recasting of Marxist theory of social consciousness applied to education. Psychology becomes sociology as all psychological phenomena are seen as social constructs. In one sense he pre-empts the rigidity of Piaget's bad science by positing a theory of development that is more flexible in terms of how and when child development takes place and less dependent on internal natural development and more on mediation.

Mediation

This is the cardinal idea in his psychology of education, that knowledge is constructed through mediation, yet it is not entirely clear what mediation entails and what he means by the 'tools' that we use in mediation. In many contexts, it simply seems like a synonym for discussion between teacher and learner. However he does focus on being aware of the learner's needs, so that they can 'construct' their own learning experience and changes the focus of teaching towards guidance and facilitation, as learners are not so much 'educated' by teachers as helped to construct their own learning.

Language and learning

In particular, it was his focus on the role of language, and the way it shapes our learning and thought, that defined his social psychology and learning theory. Behaviour is shaped by the context of a culture and schools reflect that culture. He goes further driving social influence right down to the level of interpersonal interactions. Then even further, as these interpersonal interactions mediate the development of children's higher mental functions, such as thinking, reasoning, problem solving, memory, and language. Here he took larger dialectical themes and applied them to interpersonal communication and learning.

However, Vygotsky has a pre-Chomsky view of language, where language is acquired entirely from others in a social context. We now know that this is wrong, and that we are, to a degree, hard-wired for the acquisition of language. Much of his observations on how language is acquired and shapes thought is therefore out of date. The role, for example, of 'inner speech' in language and thought development is of little real relevance in modern psycholinguistics. Habermas and others, provide much more relevant ideas on the role of language in learning.

Zone of Proximal Development (ZPD)

He prescribes a method of instruction that keeps the learner in the Zone of Proximal Development (ZPD), an idea that was neither original to him nor even fully developed in his work. The ZPD is the difference between what the learner knows and what the learner is capable of knowing or doing with

mediated assistance. To progress, one must interact with peers who are ahead of the game through social interaction, a dialectical process between learner and peer. Bruner though the concept was contradictor. r that you don't know what don't yet know. And if it simply means not pushing learners too far through complexity or cognitive overload, then the observation, or concept, seems rather obvious. One could e\en conclude that Vygotsky's conclusion about mediation through teaching is false. Teaching, or peer mediation, is not a necessary condition for learning. A great deal is made of social performance being ahead of individual performance in the ZPD but there is no real evidence that this is the case. Bruner. as stated, was to point out the weakness of this idea and replace it with the much more practical and useful concept of 'scaffolding'.

Special needs

He had a specific interest in what we now call 'special needs' and was sympathetic to most of these students being taught in mainstream education but not necessarily with the same curriculum and in the same classes. However, his simplistic identification of 'primary' and 'secondary' defects is crude and the use the term 'defectology' and the 'defect' or 'deficit' model it entails, is way out of line with modem language and thinking.

Play

At around 3, when the faculty of imagination develops, children use imaginative play to deal with acts they cannot physically perform. Objects can be mentally transformed into concepts, a doll a real person, the stick a rifle. They internalise these 'pivots' so that the imagination can 'play' and therefore learn how to deal with the world through thought and thought experiments. Rules and roles are also rehearsed through play, so that behaviour becomes self-regulated. This is interesting but by no means original.

SOCIAL MEDIATION

Meaning

"Social" Mediation is distinguished from the judicial mediation. It has been defined by European experts in Creteil in September 2000 as a mean "to create or restore the social fabric by preventing or resolving conflicts through the intervention of a neutral and [[Independence|independent] third party who guarantees communication between partners".

Through this process, citizens assume the responsibility of resolving their conflicts. By establishing an access device to the right of mediation as a process of creation and repair of social fabric, a process to

restore proximity relations and a mean of access to law as a way to amicably resolve disputes, the AFPAD has built a global project and has established a set of actions.

Definition

Social mediation is a peaceful way of solving social conflicts by which the parties agree to end their dispute with the assistance of a neutral third party. Social mediation can cover all social conflicts such as function changes or working conditions, the atmosphere and understanding within the team or general welfare, discrimination, harassment and dismissal.

Objectives

- Develop a customised support plan for emergency socio-economic situations of the students.
- Provide technical advice in social resources within the University context.
- Minimize the impact of social inequalities by supporting family or personal situations affecting their studies.
- Offer financial support in basic services for students in emergency situations.
- Offer guidance in social resources external to the University that can alleviate the individual situation.
- Achieve a comprehensive care for the student in individual or family circumstances that are affecting their studies.
- Manage funding with public or private entities for students with social and economic difficulties.
- Promote the search for social community resources among students.
- Produce reports on the situation of the student when appropriate for the Scholarship service, Vice President Offices... or social entities external to the UA to improve their individual or family circumstances.

Method

- initiative of the parties
- starting mediation protocol
- mediation
- mutual agreement

COGNITIVE NEGOTIABILITY

A learner constructs meanings on the basis of his/her experiences and level of cognitive negotiability.

Students tend to learn and understand things faster if they see it the practical way. rather than learn it from textbooks and listen to what the teacher teaches.

Teaching sessions can be made more interesting through interactive activities like, discussions and debates, site visits, teaching through games and videos, and the playway method as these methods make a lasting impression on a pupil's mind and motivated him/her to learn more.

Activity is a tool through which a teacher can judge the pupil's strengths and weaknesses. The student's weakness can be converted t strengths by making him/her learn things, which he/she finds difficult to understand.

SITUATED LEARNING

Situated learning is a theory on how individuals acquire professional skills, extending research on apprenticeship into how legitimate peripheral participation leads to membership in acommunity of practice. Situated learning "takes as its focus the relationship between learning and the social situation in which it occurs".

The perspective can be contrasted with alternative views of learning: "Rather than defining [learning] as the acquisition of propositional knowledge, Lave and Wenger situated learning in certain forms of social co-participation. Rather than asking what kinds of cognitive processes and conceptual structures are involved, they ask what kinds of social engagements provide the proper context for learning to take place"

Elements of situated learning

The major elements in the situated learning are content (facts and processes of a task), context (situations, values, environment cues), community (the group where the learner will create and negotiate) and participation (where a learner works together with others in order to solve the problem).

Situated learning deals with how one's knowledge over the course of an activity and how they create and interpret .

Content: In situated learning no importance is given for the retention of the content but its is more stressed on the reflective and higher order of thinking where the results got are used in solving the problems faced in daily life. It is more of application based.

Context: It is the usage of the product or the result at the right time, place and situation in the social, psychological and at material environment .it creates a platform to examine the experiences.

Community: It helps the learner to create, interpret, reflect and form the meanings.lt gives opportunity to share the experiences among the learners and also to interact.

Participation: It is where interchange of ideas,problem solving and engaging of the learners take place.This takes place in a social setting which includes reflecting,interpreting and negotiating among the participants of the community.

Implications of these claims on instructions

To provide authenticated tasks in the learning environment:It is said that authenticated task involves two stages that is, an objective and data in the setting also to the level of which students are performing the tasks which are authenticated.

- **Simulated apprenticeship**: Students can become apprentices in a given disciple by gaining knowledge and skills.
- **Anchored instructions** emphasizes the conditions laid by the situated learning. It gives a situated context to solve the problem
- **learning communities**: Change of the classroom culture from more of knowledge supplying to a learning community where students focus on knowledge building and solve problems that they are interested in.
- **Assessment in appropriate place**: It shows individual's performance at different situations and also focuses on the process and product .

COGNITIVE APPRENTICESHIP

Cognitive apprenticeship is a theory of the process where a master of a skill teaches that skill to an apprentice.

Constructivist approaches to human learning have led to the development of a theory of cognitive apprenticeship. This theory holds that masters of a skill often fail to take into account the implicit processes involved in carrying out complex skills when they are teaching novices. To combat these tendencies, cognitive apprenticeships "…are designed, among other things, to bring these tacit processes into the open, where students can observe, enact, and practice them with help from the teacher…". This model is supported by Albert Bandura's (1997) theory of modeling, which posits that in order for modeling to be successful, the learner must be attentive, must have access to and retain the information presented, must be motivated to learn, and must be able to accurately reproduce the desired skill.

Teaching methods

Collins, Brown, and Newman developed six teaching methods rooted in cognitive apprenticeship theory and claim these methods help students attain cognitive and metacognitive strategies for "using, managing, and discovering knowledge". The first three (modeling, coaching, scaffolding) are at the core of cognitive apprenticeship and help with cognitive and metacognitive development. The next two

(articulation and reflection) are designed to help novices with awareness of problem-solving strategies and execution similar to that of an expert. The final step (exploration) intends to guide the novice towards independence and the ability to solve and identify problems within the domain on their own. The authors note, however, that this is not an exhaustive list of methods and that the successful execution of these methods is highly dependent on the domain.

Modeling

Modeling is when an expert, usually a teacher, within the cognitive domain or subject area demonstrates a task explicitly so that novices, usually a student, can experience and build a conceptual model of the task at hand. For example, a math teacher might write out explicit steps and work through a problem aloud, demonstrating her heuristics and procedural knowledge. Modeling can include modeling of expert performance or processes in the world.

Coaching

Coaching involves observing novice task performance and offering feedback and hints to sculpt the novice's performance to that of an expert's. The expert oversees the novice's tasks and may structure the task accordingly to assist in the novice's development.

Scaffolding (Instructional Straregies)

Instructional scaffolding is the act of putting into place strategies and methods to support the student's learning. These supports can be teaching manipulatives, activities, and group work. The teacher may have to execute parts of the task that the student is not yet able to do. This requires the teacher to have the skill to analyze and assess student abilities in the moment.

Articulation (Communication)

Articulation includes "any method of getting students to articulate their knowledge, reasoning, or problem-solving process in a domain" (p. 482). Three types of articulation are inquiry teaching, thinking aloud, and critical student role. Through inquiry teaching (Collins & Stevens, 1982), teachers ask students a series of questions that allows them to refine and restate their learned knowledge and to form explicit conceptual models. Thinking aloud requires students to articulate their thoughts while solving problems. Students assuming a critical role monitor others in cooperative activities and draw conclusions based on the problem-solving activities. Articulation is described by McLellan as consisting of two aspects: separating component knowledge and skills to learn them more effectively and, more common verbalizing or demonstrating knowledge and thinking processes in order to expose and clarify them.

Reflection (Comparison)

Reflection allows students to "compare their own problem-solving processes with those of an expert, another student, and ultimately, an internal cognitive model of expertise" (p. 483). A technique for

reflection could be to examine the past performances of both expert and novice and to highlight similarities and differences. The goal of reflection is for students to look back and analyze their performances with a desire for understanding and improvement towards the behavior of an expert.

Exploration (Opportunities to solve problem)

Exploration involves giving students room to problem solve on their own and teaching students exploration strategies. The former requires the teacher to slowly withdraw the use of supports and scaffolds not only in problem solving methods, but problem setting methods as well. The latter requires the teacher to show students how to explore, research, and develop hypotheses. Exploration allows the student to frame interesting problems within the domain for themselves and then take the initiative to solve these problems.

Cognitive apprenticeship focuses on "learning-through-guided-experience on cognitive and metacognitive skills and processes" (Collins, Brown, & Newman, 1989, p. 457), instead of the physically concrete craft or trade that is the focus of traditional apprenticeships.

Specification of Theory *(a) Goals and preconditions*

The method is aimed primarily at teaching the problem-solving processes that experts use to handle complex tasks. Cognitive apprenticeships are intended to enable apprentices to learn strategies and skills in the context of their application to realistic problems, within a culture focused on and defined by expert practice

(b) Principles

1) Cognitive apprenticeship encourages reflection on differences between novices and expert performance
2) Cognitive apprenticeship encourages the development of self-monitoring and correction skills required for the problem solver to alternate among different cognitive activities
2) **Sequencing:** Tasks are sequenced to reflect the changing demands of learning: increasing complexity, increasing diversity, and global before local skills.
3) **Sociology:** With exploiting cooperation and the culture of expert practice, cognitive apprenticeship extends situated learning to diverse settings so that students learn how to apply their skills in varied context with intrinsic motivation.

(c) Condition of learning

The appropriate target knowledge for an ideal learning environment is to include four categories of expert knowledge: domain knowledge, heuristic strategies, control strategies, and learning strategies. The learning setting focuses on the four content categories with situated cooperative problem solving.

(d) Required media

Expert, peers, instructor, or apprenticeship-based computer system

(e) Role of facilitator

The facilitator's role involves modeling, coaching, and scaffolding to help students acquire an integrated set of cognitive and metacognitive skills through processes of observation, and of guided and supported practice.

(j) Assessment method

Performance-based assessment

METACOGNITION

Metacognition is "cognition about cognition", "thinking about thinking", or "knowing about knowing". It comes from the root word "**meta**", meaning beyond. It can take many forms; it includes knowledge about when and how to use particular strategies for learning or for problem solving. There are generally two components of metacognition: knowledge about cognition, and regulation of cognition.

The term metacognition literally means cognition about cognition, or more informally, thinking about thinking. Flavell defined metacognition as knowledge about cognition and control of cognition.

Metacognition also thinks about one's own thinking process such as study skills, memory capabilities, and the ability to monitor learning. This concept needs to be explicitly taught along with content instruction. Metacognitive knowledge is about our own cognitive processes and our understanding of how to regulate those processes to maximize learning.

Some types of metacognitive knowledge would include:

- Person knowledge (declarative knowledge) which is understanding one's own capabilities,
- Task knowledge (procedural knowledge) which is how one perceives the difficulty of a task which is the content, length, and the type of assignment,
- Strategic knowledge (conditional knowledge) which is one's own capability for using strategies to learn information. Young children are not particularly good at this; it is not until upper elementary where students start to develop the understanding of strategies that will be effective.

Components

Metacognition is classified into three components:

1. *Metacognitive knowledge* (also called metacognitive awareness) is what individuals know about themselves and others as cognitive processors.

2. ***Metacognitive regulation*** is the regulation of cognition and learning experiences through a set of activities that help people control their learning.
3. ***Metacognitive experiences*** are those experiences that have something to do with the current, on-going cognitive endeavor.

Metacognition refers to a level of thinking that involves active control over the process of thinking that is used in learning situations. Planning the way to approach a learning task, monitoring comprehension, and evaluating the progress towards the completion of a task: these are skills that are metacognitive in their nature.

Metacognition includes at least three different types of metacognitive awareness when considering metacognitive knowledge:

1. **Declarative knowledge**: refers to knowledge about oneself as a learner and about what factors can influence one's performance. Declarative knowledge can also be referred to as "world knowledge".
2. **Procedural knowledge**: refers to knowledge about doing things. This type of knowledge is displayed as heuristics and strategies. A high degree of procedural knowledge can allow individuals to perform tasks more automatically. This is achieved through a large variety of strategies that can be accessed more efficiently.
3. **Conditional knowledge**: refers to knowing when and why to use declarative and procedural knowledge. It allows students to allocate their resources when using strategies. This in turn allows the strategies to become more effective.

Similar to metacognitive knowledge, metacognitive regulation or "regulation of cognition" contains three skills that are essential.

1. **Planning**: refers to the appropriate selection of strategies and the correct allocation of resources that affect task performance.
2. **Monitoring**: refers to one's awareness of comprehension and task performance
3. **Evaluating**: refers to appraising the final product of a task and the efficiency at which the task was performed. This can include re-evaluating strategies that were used.

Similarly, maintaining motivation to see a task to completion is also a metacognitive skill. The ability to become aware of distracting stimuli – both internal and external – and sustain effort over time also involves metacognitive or executive functions. The theory that metacognition has a critical role to play in successful learning means it is important that it be demonstrated by both students and teachers.

Recommended Instructional Strategies

Instructors can encourage ABE learners to become more strategic thinkers by helping them focus on the ways they process information. Self-questioning, reflective journal writing, and discussing their

thought processes with other learners are among the ways that teachers can encourage learners to examine and develop their metacognitive processes.

Fogarty (1994) suggests that Metacognition is a process that spans three distinct phases, and that. : be successful thinkers, students must do the following:

1. Develop a ***plan*** before approaching a learning task, such as reading for comprehension or solving a math problem.
2. ***Monitor*** their understanding; use "fix-up" strategies when meaning breaks down.
3. ***Evaluate*** their thinking after completing the task.

Instructors can model the application of questions, and they can prompt learners to ask themselves questions during each phase. They can incorporate into lesson plans opportunities for learners to practice using these questions during learning tasks, as illustratetd in the following examples:

During the planning phase, learners can ask, *What am I supposed to learn? What prior knowledge will help me with this task? What should I do first? What should I look for in this reading? How much time do I have to complete this? In what direction do I want my thinking to take me?*

During the monitoring phase, learners can ask, *How am I doing? jAm I on the right track? How should I proceed? What information is important to remember? Should I move in a different direction? Should I adjust the pace because of the difficulty? What can I do if I do notunderstand?*

During the evaluation phase, learners can ask, *How well did I do? What did I learn? Did I get the results I expected? What could I have done differently? Can I apply this way of thinking to other problems or situations? Is there anything I don't understand—any gaps in my knowledge? Do I need to go back through the task to fill in any gaps in understanding? How might I apply this line of thinking to other problems?*

CREATING A FACILITATIVE LEARNING ENVIRONMENT

Despite the fact that socio-economic conditions, gender and culture influence students' learning for good or bad, teachers can play a vital role in creating a positive classroom environment and enhancing the performance of students.

Physical and socio-cultural environments affect students' learning for better or worse. It is in the hands of an effective teacher to turn environmental disadvantages into advantages. However adverse the physical, social and cultural environment may be, teachers can make a substantial difference in creating a conducive learning environment in the classroom for all children.

Every school and classroom environment consists of two aspects - physical and socio-cultural.

Often XM **equipped with** adequate physical environment, schools in the country, except may be those **oorp rale schools targeting** the super-rich, find themselves in the lurch when teachers also fail in creating a **conducive atmosphere** for learning in classrooms. To enhance the learning of students, improve the quality **of education** and produce vibrant minds of high-level proficiency, what we need today are dedicated and **rtivated** teachers who can change the course of traditional classroom setup and promote conducive **environments** of learning.

While teachers cannot exercise any control over certain aspects of the physical environment of a ciassroom. there are ample characteristics that impact the learning climate,
which they can control and create.

Accessibility to resources:

Given that there are only limited resource materials needed for instruction in a classroom, teachers **must** ensure that chalks, charts, models, equipment for demonstration etc are made available to students in every session. How these resource materials are accessible and used in instruction will determine whether a classroom environment is facilitative or not. All along, ensuring the accessibility of resource materials teachers must also ensure that teaching-learning activities conducted in the classroom is visible and audible **to** all. The spatial arrangement of the classroom must be taken care of in order to achieve the goals of accessibility, audibility and visibility.

Dissuading biases:

Researches show that teachers can create a positive difference in the lives of those students who are socio-culturally disadvantaged. Students who like their classrooms and perform well in their studies are those who experience their teachers to be caring and supportive. Several times, teachers prejudge their students on the basis of their socio-cultural background and fail to communicate the message that cultural difference is not cultural deficit. It would be a good idea for teachers to make an analysis about their socio-cultural biases and make a conscious effort to guard against them.

Inclusive setting:

Disability is never a deficiency, it becomes so when society fails to create a favourable environment for them to learn and progress. Teachers must never put up an attitude of deficiency before the students, particularly to the disabled. They must rather create an inclusive environment in the classroom in which all students feel at home, gather in self-confidence and be able to develop on their innate talents. Teachers must nurture the students' talents to bloom rather than diminish their enthusiasm in the initial stages.

Instructional techniques:

Teachers should use adequate instructional techniques in line with the socio-cultural characteristics of learners, which in turn will influence their learning. Instructional strategies that favour the learning needs of children should be acquired and implemented as part of the

curriculum to boost their academic performance.

Different instructional methods like cooperative learning, peer tutoring, mastery learning etc. can be included as per the learning requirements of students. Depending on the need and temperament of each student, teachers must be flexible with their instructional tactics so as to set all the students equally on the path of learning.

Knowledge of sociolinguistics:

Creating a conducive ambience for learning in classrooms necessarily demands a proper know-how of the sociolinguistics of students by the teacher. Lack of such an understanding may give way for misunderstanding and lack of communication. Unless a teacher understands properly the sociolinguistics of his/her students, s/he will not be able to assess why a student responds or reacts in a particular way. A proper exchange of words can take place between a teacher and student only when the teacher understands his/her student from within the sociolinguistic background of that particular student.

Supportive ambience:

Numerous research studies sustain the fact that an affectionate, caring and empathetic approach from teachers impels the students to be serious about their lessons, cooperate wholeheartedly with their mentors in accomplishing the targets and work hard in achieving expectations. A personal, one-to-one, direct relationship with one's students and rendering them the confidence that their teacher is someone whom they can count on, will go a long way in establishing a positive classroom environment. All along, teachers need to take an extra effort in making the students feel comfortable to ask questions and never entertain labeling students, either by themselves or others.

Sharing expectations: It is also important that teachers, having known their students and established a positive one-to-one relationship, share their expectations with them on a regular basis and stick to those. Sharing one's expectations as to his/her ward's expected academic performance, routine conduct and overall discipline will play a vital role in setting a positive ambience in the classrooms.

Acceptance and tolerance:

Creating a positive atmosphere of learning in schools and classrooms will also depend a lot on the ability of teachers to establish a culture of mutual respect and understanding among the students. It is important that the students are trained in the academy of acceptance and tolerance for one another. They are to be taught not to laugh at or make fun of those making mistakes. Class schedules and activities are to be planned in such a way as to promote mutual respect and appreciation among the students. Mutual appreciation and tolerance go a long way in defining a healthy and constructive classroom environment.

Social relationships:

Another feature of a conducive classroom environment is proactive and encouraging social relationship. Students should be able to work with others in group to complete tasks, engage with others in project works and get along with everyone else in an easy manner enhancing and nourishing the learning experience of every other student.

n **Freedom of** expression: It is predominantly meaningful for those who are overly controlled or bullied. **Students'** classroom atmosphere should provide them the freedom to confront various vicious situations **they** experience and set healthier boundaries. Freedom of expression can provide empowerment by urging **one to** stand up to one's needs.

A positive and conducive atmosphere can be created by a teacher in the classroom only when he'she respects his/her students, knows one's students and arrange learning experiences for them to meet great expectations and accomplish realistic goals. Making things clear for the students from the very beginning and on a regular basis is important to earn their cooperation and set them on the path of knowledge. Winning the hearts of one's students will play a vital role for teachers to create a conducive and positive environment for learning in the classrooms.

TEACHERS' ATTITUDES

The word attitude (from Latin aptus) is defined within the framework of social psychology as a subjective or mental preparation for action. It defines outward and visible postures and human beliefs. Attitudes determine what each individual will see, hear , think and do. They are rooted in experience and *do not become automatic routine conduct*.

Attitude means the individual's prevailing tendency to respond › favorably or unfavorably to an *object* (person or group of people, institutions or events). Attitudes can be positive (values) or negative (prejudice). Social psychologists distinguish and study three components of the responses: a) *cognitive component,* which is the knowledge about an attitude object, whether accurate or not; b) *affective component:* feelings towards the object and c) *conative or behavioral component,* which is the action taken towards the object.

Teacher expectations

Although it is widely accepted that teacher's expectations affect students' achievement, recent classroom observations have led some researchers to conclude that expectancy effects are more complex than previously thought. Claude Goldenberg, University of California/Los Angeles, believes that teachers and students affect one another in more complicated and reciprocal ways that are not easy to predict or to change. The relationship between expectancy and achievement appears to be partly the result of students' effects on teachers. Student behaviors, such as motivation and academic focus, help shape teachers' expectations. Some researchers suggest that teachers' expectations may predict students' performance, not simply because their expectations create self-fulling prophecies, but because they are accurate reflections of student behaviors that are critical for academic success.

Theory and classroom observation

Most researchers agree that expectations have at least some effect on achievement. For example, when a teacher has high expectations for his students, regards them as capable and expects them to do well, that teacher may attempt to teach more and to create a more positive atmosphere, leading to higher achievement. Conversely, a teacher who has low expectations is probably less likely to present advanced or challenging material and might unwittingly discourage learning by providing less attention, encouragement or positive feedback.

However, according to Goldenberg, it is also the way in which expectations shape a teacher's behavior that affects a student's achievement.

In a large study of low-income, Spanish-speaking children, classes were observed to determine the effect of expectancy on achievement. Goldenberg reported that regardless of their expectations, the teachers in this study were generally very supportive and positive with all their students. But he did identify two children in one classroom, for whom the teacher's behavior actually counteracted any effect her expectations might have had. Goldenberg carefully observed teacher and student behavior in this classroom two to four times a week over a period of one year, and during that period, interviewed the teacher several times. He learned that the teacher's expectations for these two children ran counter to what the children actually achieved. Goldenberg analyzed observation records and interview notes concerning these two children to determine how this came about.

In the third week of school, this teacher was asked to rate all the children in her class on attention to instruction, following directions, independent work habits and effort, and then to predict what each child's reading level would be at the end of the year. Decoding and word-recognition tests were administered to all children in the class at the end of the school year to measure actual achievement.

Teacher's expectations

Both children had scored in the lowest quartile on a post-kindergarten test. After observing the children during the initial weeks of first grade, the teacher stated that she had low expectations for one child, but high expectations for the other. The first child was nonverbal and timid and needed considerable help with new concepts. The teacher said that her low expectations for this child were due partly to the girl's attitude, particularly her lack of effort. The teacher described the child's work as carelessly done and unacceptable, and considered her a behavior problem because she had difficulty remembering class rules and routines.

Although the second child was also in the lowest reading group, her kindergarten teacher reported that she had made tremendous gains at the end of the kindergarten year. This report, and the child's enthusiastic, attentive and well-behaved manner, led the first-grade teacher to have high expectations for

the child's success in reading. This child worked very carefully and her work was neat and correct even though she often did not finish assignments.

Teacher's behavior

This teacher's expectations caused her to work with these children very differently. The first child, who appeared unlikely to succeed, was closely monitored. The teacher frequently spoke to the child about her performance and kept her after school four times over the course of the year for private talks during which she told her that it was important to improve her attitude and behavior, and to be more careful with her work. The teacher also went to considerable effort to make contact with the girl's mother in order to enlist her support. The teacher called the mother to remind her of conferences and offered to meet with her at her convenience. The teacher provided extra practice work for the mother to do with her child at home. After these meetings with the child and her mother, the child began to make significant improvements in her attitude and work. The teacher watched her progress closely, encouraged her and moved her to higher-level reading groups as she improved.

In summary, it appears that the teacher's low expectations for this child led her to monitor the child's progress very carefully and to take positive and decisive steps to change her behavior early in the school year. The teacher reported that her own behavior toward the student was influenced by her annoyance at the child's behavior in class. The teacher's expectations of poor achievement led her to expend much time and energy trying to improve the child's attitude and performance.

ENHANCING MOTIVATION IN TEACHING AND LEARNING PROCESS

The best lessons, books, and materials in the world won't get students excited about learning and willing to work hard if they're not motivated.

Motivation, both intrinsic and extrinsic, is a key factor in the success of students at all stages of their education, and teachers can play a pivotal role in providing and encouraging that motivation in their students. Of course that's much easier said than done, as all students are motivated differently and it takes time and a lot of effort to learn to get a classroom full of kids enthusiastic about learning, working hard, and pushing themselves to excel.

Even the most well-intentioned and educated teachers sometimes lack the skills to keep kids on track, so whether you're a new teacher or an experienced one, try using these methods to motivate your students and to encourage them to live up to their true potential.

Ideas to Improve Student Motivation

Internal and external factors that stimulate desire and energy in people to be continually interested and committed to a job, role or subject, or to make an effort to attain a goal.

1. Give students a sense of control.

While guidance from a teacher is important to keeping kids on task and motivated, allowing students to have some choice and control over what happens in the classroom is actually one of the best ways to keep them engaged. For example, allowing students to choose the type of assignment they do or which problems to work on can give them a sense of control that may just motivate them to do more.

2. Define the objectives.

It can be very frustrating for students to complete an assignment or even to behave in class if there aren't clearly defined objectives. Students want and need to know what is expected of them in order to stay motivated to work. At the beginning of the year, lay out clear objectives, rules, and expectations of students so that there is no confusion and students have goals to work towards.

3. Create a threat-free environment.

While students do need to understand that there are consequences to their actions, far more motivating for students than threats are positive reinforcements. When teachers create a safe, supportive environment for students, affirming their belief in a student's abilities rather than laying out the consequences of not doing things, students are much more likely to get and stay motivated to do their work. At the end of the day, students will fulfill the expectations that the adults around them communicate, so focus on can, not can't.

4. Change your scenery.

A classroom is a great place for learning, but sitting at a desk day in and day out can make school start to seem a bit dull for some students. To renew interest in the subject matter or just in learning in general, give your students a chance to get out of the classroom. Take field trips, bring in speakers, or even just head to the library for some research. The brain loves novelty and a new setting can be just what some students need to stay motivated to learn.

5. Offer varied experiences.

Not all students will respond to lessons in the same way. For some, hands-on experiences may be the best. Others may love to read books quietly or to work in groups. In order to keep all students motivated, mix up your lessons so that students with different preferences will each get time focused on the things they like best. Doing so will help students stay engaged and pay attention.

6. Use positive competition.

Competition in the classroom isn't always a bad thing, and in some cases can motivate students to try harder and work to excel. Work to foster a friendly spirit of competition in your classroom, perhaps

through group games related to the material or other opportunities for students to show off their knowledge.

7. Offer rewards.

Everyone likes getting rewards, and offering your students the chance to earn them is an excellent source of motivation. Things like pizza parties, watching movies, or even something as simple as a sticker on a paper can make students work harder and really aim to achieve. Consider the personalities and needs of your students to determine appropriate rewards for your class.

8. Give students responsibility.

Assigning students classroom jobs is a great way to build a community and to give students a sense of motivation. Most students will see classroom jobs as a privilege rather than a burden and will work hard to ensure that they, and other students, are meeting expectations. It can also be useful to allow students to take turns leading activities or helping out so that each feels important and valued.

9. Allow students to together.

While not all students will jump at the chance to work in groups, many will find it fun to try to solve problems, do experiments, and work on projects with other students. The social interaction can get them excited about things in the classroom and students can motivate one another to reach a goal. Teachers need to ensure that groups are balanced and fair, however, so that some students aren't doing more work than others.

10. Give praise when earned.

There is no other form of motivation that works quite as well as encouragement. Even as adults we crave recognition and praise, and students at any age are no exception. Teachers can give students a bounty of motivation by rewarding success publicly, giving praise for a job well done, and sharing exemplary work.

11. Encourage self-reflection.

Most kids want to succeed, they just need help figuring out what they need to do in order to get there. One way to motivate your students is to get them to take a hard look at themselves and determine their own strengths and weaknesses. Students are often much more motivated by creating these kinds of critiques of themselves than by having a teacher do it for them, as it makes them feel in charge of creating their own objectives and goals.

12. Be excited.

One of the best ways to get your students motivated is to share your enthusiasm. When you're excited about teaching, they'll be much more excited about learning. It's that simple.

13. Know your students.

Getting to know your students is about more than just memorizing their names. Students need to know that their teacher has a genuine interest in them and cares about them and their success. When

students feel appreciated it creates a safe learning environment and motivates them to work harder. as they want to get praise and good feedback from someone they feel knows and respects them as individuals.

14. Harness student interests.

Knowing your students also has some other benefits, namely that it allows you to relate classroom material to things that students are interested in or have experienced. Teachers can use these interests to make things more interesting and relatable to students, keeping students motivated for longer.

15. Help students find intrinsic motivation.

It can be great to help students get motivated, but at the end of the day they need to be able to generate their own motivation. Helping students find their own personal reasons for doing class work and working hard, whether because they find material interesting, want to go to college, or just love to learn, is one of the most powerful gifts you can give them.

16. Manage student anxiety.

Some students find the prospect of not doing well so anxiety-inducing that it becomes a self-fulfilling prophecy. For these students, teachers may find that they are most motivated by learning that struggling with a subject isn't the end of the world. Offer support no matter what the end result is and ensure that students don't feel so overwhelmed by expectations that they just give up.

17. Make goals high but attainable.

If you're not pushing your students to do more than the bare minimum, most won't seek to push themselves on their own. Students like to be challenged and will work to achieve high expectations so long as they believe those goals to be within their reach, so don't be afraid to push students to get more out of them.

18. Give feedback and offer chances to improve.

Students who struggle with class work can sometimes feel frustrated and get down on themselves, draining motivation. In these situations it's critical that teachers help students to learn exactly where they went wrong and how they can improve next time. Figuring out a method to get where students want to be can also help them to stay motivated to work hard.

19. Track progress.

It can be hard for students to see just how far they've come, especially with subjects that are difficult for them. Tracking can come in handy in the classroom, not only for teachers but also for students. Teachers can use this as a way to motivate students, allowing them to see visually just how much they are learning and improving as the year goes on.

20. Make things fun.

Not all class work needs to be a game or a good time, but students who see school as a place where they can have fun will be more motivated to pay attention and do the work that's required of them than those who regard it as a chore. Adding fun activities into your school day can help students who struggle to stay engaged and make the classroom a much more friendly place for all students.

21. Provide opportunities for success.

Students, even the best ones, can become frustrated and demotivated when they feel like they're struggling or not getting the recognition that other students are. Make sure that all students get a chance to play to their strengths and feel included and valued. It can make a world of difference in their motivation.

POSITIVE EMOTIONS

Definition

Positive emotions include pleasant or desirable situational responses, ranging from interest and contentment to love and joy, but are distinct from pleasurable sensation and undifferentiated positive affect. These emotions are markers of people's overall well-being or happiness, but they also enhance future growth and success.

Joy

'Joy' is a common term that is used to describe the spectrum of happiness, from gentle comfort to ecstatic bliss. As a positive emotion, it is probably the most common one to be identified and also the one that is most commonly sought. Joy is often short-term, appearing quickly and also fading fast. Overall happiness can be increased by finding more things to be joyful about.

Joy can be found in many of the other positive emotions, all of which are linked to 'being happy', yet it is useful to separate them out for individual consideration.

Gratitude

Gratitude is one of the strongest correlates with happiness. Simply by being grateful for what you have, you are focusing on the positive, as opposed to being unhappy about what you do not have. Expressing gratitude multiplies this as it not only reinforces the internal positive attitude but it both gains the altruistic pleasure of helping others and may be reflected in their 'gratitude for gratitude' and how they seek to make you happy in future.

Serenity *is the calm of being content with what you have. It is an Epicurean pleasure in the way Epicurus defined pleasure as the absence of pain. Serenity is linked with higher spiritual states where the person feels at one with the universe and neither a victim nor a beneficiary of fate.*

Interest

We have interest in those things that will help us to meet needs and achieve our goals. Interest is also sparked by novelty which piques our curiosity and so creates inquiry arousal. Just taking an interest in what is going on around you and in the world at large gives space for the pleasure of discovery to appear.

Hope

Hope is anticipatory happiness. It is the pleasure of an assumed future where good things happen and you will experience joy or other positive emotions. Hope is associated with optimism and our natural bias towards this can bring happiness into an unhappy situation as we think about how things can only get better.

Pride

Pride can have both negative and positive sides. A prideful person is arrogant and concerned with their status over others. They may feel happy, but at the expense of others. The more positive form of pride is typified by the pride in one's work or one's team. It is a 'purer' form of pride as it is intrinsically felt and is not negative about other people.

Amusement

Amusement happens when we find something funny, from jokes to the incongruous nature of the world around us. Humor is an easy way of connecting with others and a shared sense of amusement is a helpful social bond. Being easily amused is also not to take things too seriously, especially ourselves. If you can laugh at your own mistakes then you can be happy forever.

Inspiration

Inspiration is what we feel when we see consummate skill or hear a great speech, and are inspired to do something as a result of this. In this way, inspiration is a strong motivational force and can be very powerful for changing minds. Leaders in particular will use this, particularly when using charismatic and transformational styles of leadership.

Awe

Awe is the feeling you get when you see a wonderful sunset or landscape. It is what you feel when you experience great art and marvel at the skill of the artist. This can be achieved through appreciation of painting, performance or some other creative expression. Awe can also be spiritual as you wonder at the marvels of the infinite universe or the totality of your god. Awe can come just from openness to experience. When you think of the wonders around you and even within you, you can just feel in awe of it all.

Love

Love is a hugely powerful emotion which we first experience as an infant from our parents or carers. It is also complex and there are several forms that may or may not seek reciprocation. The purest form is unconditional love, seeking to give but not to receive (romantic love seeks both to give and to get affection).

Altruism

Altruism is the pleasure of helping other people. It is related to love but is not quite the same, although it can be seen as being based on the love of humanity. Helping people, even strangers, is a very powerful method for gaining happiness and has strong social value as well as proving us as 'higher beings' who are not solely driven by selfish motivations.

Satisfaction

Satisfaction is the pleasure of meeting challenges and achieving goals. It is related both to pride and serenity and is a low-activation emotion (in contrast to states of higher arousal such as inspiration). The opposite of satisfaction is dissatisfaction and the betrayal impact of this is known by many companies who have not satisfied their customers.

Relief

When we feel threatened, then we feel relief when the threat is avoided as we 'dodge the bullet'. We also feel relief when we are feeling uncomfortable about something, from being ill to revising for exams, and the uncomfortable period finishes. We sometimes talk about a 'blessed relief', which reflects the positive feeling as we contrast the comfort now with the recent discomfort.

Positive emotions in classroom

In the classroom The research findings imply that positive emotions can have profoundly positive effects on students' learning. However, this need not be true for all positive emotions. Specifically, positive task-related emotions, such as enjoyment of learning, focus students' attention on learning, promote their motivation to learn, and facilitate use of deep learning strategies and self-regulation of learning. Overall, you can expect these emotions to have positive effects on students' achievement. By contrast, positive emotions that do not relate to learning can draw attention away and lower performance, such as a student falling in love reducing his/her academic effort. Similarly, deactivating positive emotions, such as relief and relaxation, do not necessarily have positive effects. Therefore, you can help students develop their motivation and acquire competencies by promoting their task-related positive emotions. Teachers should make an effort to promote students' enjoyment of learning and excitement about learning materials (see Principles 5 to 9), but do not rely on triggering positive emotions that do not relate to learning. It may not be sufficient that students just experience good feelings; rather, positive emotional experience needs to be linked to the task of solving cognitive problems and studying learning materials.

SELF – EFFICACY

Definition

Self-efficacy is the extent or strength of one's belief in one's own ability to complete tasks and reach go...

Self-Efficacy Theory

Self-efficacy beliefs are an important aspect of human motivation and behavior as well as influence the actions that can affect one's life. Regarding self-efficacy, Bandura (1995) explains that it "refers to beliefs in one's capabilities to organize and execute the courses of action required to manage prospective situations" . More simply, self-efficacy is what an individual believes he or she can accomplish using his or her skills under certain circumstances (Snyder & Lopez, 2007). Self-efficacy has been thought to be a task-specific version of self-esteem (Lunenburg, 2011). The basic principle behind Self-Efficacy Theory is that individuals are more likely to engage in activities for which they have high self-efficacy and less likely to engage in those they do not (Van der Bijl & Shortridge-Baggett, 2002). According to Gecas (2004), people behave in the way that executes their initial beliefs; thus, self-efficacy functions as a self-fulfilling prophecy. Judgments of self-efficacy are generally measured along three basic scales: magnitude, strength, and generality.

Self-efficacy magnitude measures the difficulty level (e.g. easy, moderate, and hard) an individual feels is required to perform a certain task (Van der Bijl & Shortridge-Baggett, 2002). How difficult is my class work? Are the quizzes easy or hard?

Self-efficacy strength refers to the amount of conviction an individual has about performing successfully at diverse levels of difficulty (Van der Bijl & Shortridge-Baggett, 2002). How confident am I that I can excel at my work tasks? How sure am I that I can climb the ladder of success?

Generality of self-efficacy refers to the "degree to which the expectation is generalized across situations (Lunenburg, 2011).

The basic idea behind the Self-Efficacy Theory is that performance and motivation are in part determined by how effective people believe they can be (Bandura, 1982; as cited in Redmond, 2010). The theory is clearly illustrated in the following quote by Mahatma Gandhi:

Factors affecting self-efficacy

Bandura identifies four factors affecting self-efficacy.

1. Experience, or "Enactive Attainment"

The experience of mastery is the most important factor determining a person's self-efficacy. Success raises self-efficacy, while failure lowers it.

"Children cannot be fooled by empty praise and condescending encouragement. They may have to accept artificial bolstering of their self-esteem in lieu of something better, but what I call their accruing ego identity gains real strength only from wholehearted and consistent recognition of real accomplishment. that is, achievement that has meaning in their culture." (Erik Erikson)

2. Modeling, or "Vicarious Experience"

Modeling is experienced as, "If they can do it, I can do it as well." When we see someone succeeding, our own self-efficacy increases; where we see people failing, our self-efficacy decreases. This process is most effectual when we see ourselves as similar to the model. Although not as influential as direct experience, modeling is particularly useful for people who are particularly unsure of themselves.

3. Social Persuasion

Social persuasion generally manifests as direct encouragement or discouragement from another person. Discouragement is generally more effective at decreasing a person's self-efficacy than encouragement is at increasing it.

4. Physiological Factors

In stressful situations, people commonly exhibit signs of distress: shakes, aches and pains, fatigue, fear, nausea, etc. Perceptions of these responses in oneself can markedly alter self-efficacy. Getting 'butterflies in the stomach' before public speaking will be interpreted by someone with low self-efficacy as a sign of inability, thus decreasing self-efficacy further, where high self-efficacy would lead to interpreting such physiological signs as normal and unrelated to ability. It is one's belief in the implications of physiological response that alters self-efficacy, rather than the physiological response itself.

Applications

Academic Contexts

Parents' sense of academic efficacy for their child is linked to their children's scholastic achievement. If the parents have higher perceived academic capabilities and aspirations for their child, the child itself will share those same beliefs. This promotes academic self-efficacy for the child, and in turn, leads to scholastic achievement. It also leads to prosocial behavior, and reduces vulnerability to feelings of futility and depression. There is a relationship between low self-efficacy and depression.

In a study, the majority of a group of students questioned felt they had a difficulty with listening in class situations. Instructors then helped strengthen their listening skills by making them aware about how the use of different strategies could produce better outcomes. This way, their levels of self-efficacy were improved as they continued to figure out what strategies worked for them.

Self-Efficacy and STEM

Self-efficacy theory has been applied to the career area to examine why women are underrepresented in male-dominated STEM fields such as mathematics, engineering, and science. It was found that gender differences in self-efficacy expectancies importantly influence the career-related behaviors and career choices of young women.Moreover, researchers have reported that mathematics self-efficacy is more predictive of mathematics interest, choice of math-related courses, and math majors than

past achievements in math or outcome expectations. Self-efficacy, then, has proven especially useful for helping undergraduate students to gain insights into their career development in STEM fields.

Self-Efficacy and Writing

Writing studies research indicates a strong relationship linking perceived self-efficacy to motivation and performance outcomes.

Motivation

One of the factors most commonly associated with self-efficacy in writing studies is motivation. Motivation is often divided into two categories: extrinsic and intrinsic. McLeod suggests that intrinsic motivators tend to be more effective than extrinsic motivators because students then perceive the given task as inherently valuable.

Performance outcomes

Self-efficacy has often been linked to students' writing performance outcomes. More so than any other element within the cognitive-affective domain, self-efficacy beliefs have proven to be predictive of performance outcomes in writing.In order to assess the relationship between self-efficacy and writing capabilities, several studies have constructed scales to measure students' self-efficacy beliefs. The results of these scales are then compared to student writing samples. The studies included other variables, such as writing anxiety, grade goals, depth of processing, and expected outcomes. However, self-efficacy was the only variable that was a statistically significant predictor of writing performance.

Strategies to improve self-efficacy for struggling students

Use moderately – difficult tasks

If the task is too easy will be boring or embarrassing and may communicate the feeling that the teacher doubts their abilities; a too-difficult task will re-enforce low self-efficacy. The target for difficulty is slightly above the students' current ability level.

Use peer models

Students can learn by watching a peer succeed at a task. Peers may be drawn from groups as defined by gender, ethnicity, social circles, interests, achievement level, clothing, or age.

Teach specific learning strategies

Give students a concrete plan of attack for working on an assignment, rather than simply turning them loose. This may apply to overall study skills, such as preparing for an exam, or to a specific assignment or project.

Capitalize on students' interests

Tie the course material or concepts to student interests such as sports, pop culture, movies or technology.

Allow students to make their own choices

Set up some areas of the course that allow students to make their own decisions, such as with flexible grading, assignment options or self-determined due dates.

Encourage students to try

Give them consistent, credible and specific encouragement, such as, "You can do this. We've set up an outline for how to write a lab report and a schedule for what to do each week - now follow the plan and you will be successful."

Give frequent, focused feedback

Giving praise and encouragement is very important, however it must be credible. Use praise when earned and avoid hyperbole. When giving feedback on student performance, compare to past performances by the same student, don't make comparisons between students.

Encourage accurate attributions

Help students understand that they don't fail because they're dumb, they fail because they didn't follow instructions, they didn't spend enough time on the task, or they didn't follow through on the learning strategy.

Teachers need high self-efficacy

Teachers with a high sense of efficacy about their teaching capabilities may have an easier time motivating their students and enhancing their cognitive development. These teachers may also be able to rebound from setbacks and more willing to experiment with new ideas or techniques. Low efficacious teachers may rely more on a controlling teaching style and may be more critical of students.

COLLOBORATIVE LEARNING

Definition

Collaborative learning is a situation in which two or more people learn or attempt to learn something together Unlike individual learning, people engaged in collaborative learning capitalize on one another's resources and skills (asking one another for information, evaluating one another's ideas, monitoring one another's work, etc.). More specifically, collaborative learning is based on the model that knowledge can be created within a population where members actively interact by sharing experiences and take on asymmetry roles.

Collaborative Learning in Classroom situation

Often, collaborative learning is used as an umbrella term for a variety of approaches in education that involve joint intellectual effort by students or students and teachers by engaging individuals in interdependent learning activities. Many have found this to be beneficial in helping students learn effectively and efficiently than if the students were to learn independently. Some positive results from collaborative learning activities are students are able to learn more material by engaging with one another and making sure everyone understands, students retain more information from thoughtful discussion, and students have a more positive attitude about learning and each other by working together.

Encouraging collaborative learning may also help improve the learning environment in higher education as well. Kenneth Bruffee performed a theoretical analysis on the state of higher education in America. Bruffee aimed to redefine collaborative learning in academia. Simply including more interdependent activities will help the students become more engaged and thoughtful learners, but teaching them that obtaining knowledge is a communal activity itself.

Collaborative Learning and Technology

Technology has become an important factor in collaborative learning. Over the past ten years, the Internet has allowed for a shared space for groups to communicate. Virtual environments have been critical to allowing people to communicate long-distances but still feel like they are part of the group. Research has been conducted on how technology has helped increase the potential of collaborative learning.One study in particular conducted by Elizabeth Stacey looked at how technology affected the communication of postgraduate students studying a Master of Business Administration (MBA) using computer-mediated communication (CMC). Many of these students were able to still remotely learn even when they were not present on their university campus. The results of the study helped build an online learning environment model but since this research was conducted the Internet has grown extensively and thus new software is changing these means of communication.

There has been a development of new technology that support collaborative learning in higher education and the workplace. These tools allow for a strong more power and engaging learning environment. Chickering identified seven principles for good practice in undergraduate education developed by Chickering. Two of these principles are especially important in developing technology for collaboration.

1. "Good practice develops reciprocity and cooperation among students,"
2. Good practice uses active learning techniques.

SELF-REGULATED LEARNING (SRL)

Definition

Self-regulated learning (SRL) is one of six domains of self-regulation, and is aligned most closely with the interests of teachers. Broadly speaking, it refers to learning that is guided by *metacognition* (thinking about one's thinking), *strategic action* (planning, monitoring, and evaluating personal progress against a standard), and *motivation to learn*. "Self-regulated" describes a process of taking control of and evaluating one's own learning and behavior.

Four phases of self-regulation

According to Winne and Hadwin, self-regulation unfolds over "four flexibly sequenced phases of recursive cognition." These phases are task perception, goal setting and planning, enacting, and adaptation. During the task perception phase, students gather information about the task at hand and personalize their perception of it. This stage involves determining motivational states, self-efficacy, and information about the environment around them.

Next, students set goals and plan how to accomplish the task. Several goals may be set concerning explicit behaviors, cognitive engagement, and motivation changes. The goals that are set depend on how the students perceive the task at hand. The students will then enact the plan they have developed by using study skills and other useful tactics they have in their repertoire of learning strategies.

The last phase is adaptation, wherein students evaluate their performance and determine how to modify their strategy in order to achieve higher performance in the future. They may change their goals or their plan; they may also choose not to attempt that particular task again. Winne and Hadwin state that all academic tasks encompass these four phases.

Sources of self-regulated learning

According to Iran-Nejad and Chissom, there are three sources of self-regulated learning: active/executive, dynamic, and interest-creating discovery model (1992). Active/executive self-regulation is regulated by the person and is intentional, deliberate, conscious, voluntary, and strategic. The individual is aware and effortful in using self-regulation strategies. Under this source of SRL, learning happens best in a habitual mode of functioning. Dynamic self-regulation is also known as unintentional learning because it is regulated by internal subsystems other than the "central executive."

Social cognitive perspective

Self-regulation from the social cognitive perspective looks at the triadic interaction among the person (e.g., beliefs about success), his or her behavior (e.g., engaging in a task), and the environment (e.g., feedback from a teacher). Zimmerman et al. specified three important characteristics of self-regulated learning:

1. self-observation (monitoring one's activities); seen as the most important of these processes[14]

2. self-judgment (self-evaluation of one's performance) and
3. self - reactions (reactions to performance outcomes).

Involving stages

Zimmerman suggested that self-regulated learning process better with three stages.

1. Forethought, learners' preparing work before performance on their studying;
2. Volitional control, which is also called "performance control", occurs in the learning process. It involves learners attention and willpower;
3. Self-reflection,happens in the final stage when learners review their performance toward final goals. At the same time, focusing on their learning strategies during the process is also efficient for their final outcomes.

Information processing perspective

Winne & Marx posited that motivational thoughts and beliefs are governed by the basic principles of cognitive psychology, which should be conceived in information-processing terms. Motivation plays a major role in self regulated learning. Motivation is needed to apply effort and continue on when faced with difficulty. Control also plays a role in self regulated learning as it helps the learner stay on track in reaching their learning goal and avoid being distracted from things that stand in the way of the learning goal (Palincsar & Brown, 1984).

Student performance perspective

Lovett, Meyer and Thille observed comparable student performance between instructor-led and self-regulated learning environments. In a subsequent study, self-regulated learning was shown to enable accelerated learning while maintaining long-term retention rates.

To increase positive attitudes and academic performance, expert learners should be created. Expert learners develop self-regulated learning strategies. One of these strategies is the ability to develop and ask questions and use these questions to expand on their own prior knowledge. This technique allows the learners to test the true understanding of their knowledge and make correction about content areas that have a misunderstanding. When learners engage in questioning, it forces them to be more actively engaged in their learning. It also allows them to self analyze and determine their level of comprehension (Palincsar & Brown, 1984).

This active engagement allows the learner to organize concepts into existing schemas. Through the use of questions, learners can accommodate and then assimilate their new knowledge with existing schema. This process allows the learner to solve novel problems and when the existing schema does not

work on **the novel** problem the learner must reevaluate and assess their level of understanding (Paris & Paris, 2001).

Application of self-regulated learning in practice

Edirippulige & Marasinghe (2011) reviewed evidences of blending of self-regulated learning with new educational programmes such as e-Health teaching using different ICT technologies.

There are also many practical applications for self-regulated learning in schools and classrooms today. Paris and Paris state there are three main areas of direct application in classrooms: literacy instruction, cognitive engagement, and self-assessment (2001). In the area of literacy instruction, educators can teach students the skills necessary to lead them to becoming self-regulated learners by using strategies such as reciprocal teaching, open-ended tasks, and project-based learning.

Examples of self regulated learning strategies in practice:

Self-Assessment: fosters planning, assess what skills the learner has and what skills are needed. Allows students to internalize standards of learning so they can regulate their own learning (Laskey & Hetzel, 2010).

Wrapper Activity : activity based on pre-existing learning or assessment task. This can be done as a homework assignment. Consist of self-assessment questions to complete before completing homework and then after completion of homework. This will allow the learner to draw their own conclusions about the learning process (Laskey & Hetzel, 2010).

Think Aloud: This involves the teacher describing their thought process in solving a problem (Joseph, 2010).

Questioning: Following new material, student develop questions about the material (Joseph, 2010).

Reciprocal Teaching: the learner teaches new material to fellow learners (Joseph, 2010).