Flipped Learning Approach for Effective Learning

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ABSTRACT:
As the society needs increasing, educational needs and learners’ needs are also increasing. Learning consequences and learning styles are changing day to day in that, technology tool for learning is flipped learning approach is one, the teachers inverting the teaching structure as ‘school work at home and home work at school’. The learners participate in-class activities and out of class activities for effective learning then more opportunities are given to students to learn in flexible environment with their own pace. For involvement of student in content, before a day teacher sending concept through electronic media and then next day the observed, perceived concepts are revised and practiced in classroom after this teacher assigning home work to students in the classroom to know the effectiveness of their teaching. This process leads the positive impact on learner and the achievement in the subjects will be increasing by instructional approach and the learning will be permanent. Through flipped learning approach learner can get equal learning opportunity, develop self-confidence, improvement in achievement, and updating convergent and divergent thinking in cognitive domain, learning attitude towards learning. Flipped learning nurtures the multi-dimensional thinking towards problem solving ability in education and life tasks. Flipped learning also bring changes in teachers teaching confidence level and enthusiasm in engaging more in class.

Teacher teaching styles, methods, and evaluation techniques are increasingly varying as the learner learning needs. Then pupil challenges, teacher challenges and concept operational challenges are more, for to manage these the theoretical and empirical research findings in education technology particularly in flipped learning approach in in the present 21st century educational settings.

Key words: Learner, Effective Learning, Flipped learning approach.

INTRODUCTION.
Nowadays in the society individual’s existing style is fluctuating in food, dress, habitats, attitudes and culture etc., as the society varying in all fields. The education field also changing learner, teacher, curriculum, administration and management everything is changing because impact of science and technology. Then learner is not completely involving in the learning process because of the busy schedule in domestic or the school timings, learner not cognizant of the content, struggling more to appear and sit in the class with attention, obstacles like reckless teaching, language barrier or the varied teaching methods in perceiving the concept so learner not solely finish homework in the home because of all the barriers.
Basically, learners’ learning attitude is grounded on teacher teaching competency, efficiency and applying advanced strategies in teaching concepts because learner needs much novelty in teaching so, as to make fruit full learning every teacher must occupy advanced teaching methods. Through, the research advanced teaching methods, approaches are launching day to day in those approaches flipped learning approach is also one. Flipped learning approach appears as technology based online learning approach, but it is the combination of both the online learning and conventional learning.

In the conventional learning the learning process carried out with in the four walls and learner sitting in front of the teacher. Pupils are passive listeners and involvement is seen in some curricular activities conducting by teacher, both the teacher and pupil physical presence seen, but in the online learning teacher educating pupil by utilizing online medias like google classroom, zoom app etc. the discussions carrying only in online platforms then learners are virtually involving in the learning process the interaction between the pupil teacher is not clearly noticeable because of technical barriers in the online classes.

In the flipped learning before one day the teacher sending the content to pupil’s [outside the classroom] home through the electronic media. while observing the content in their home unaware concepts, doubts may arise, these doubts and conceptual awareness will be clarifying in the classroom. The homework is done at the classroom by peer interactions, collaborative learning activities, in the presence of teacher. So, both the e-learning and conventional learning process uniting together a flipped learning approach. Upside down the traditional learning called flipped learning.

In other words, learning attained through videos and supporting materials provided before classes is supported with activities designed to enhance comprehension, practice, analysis, evaluation, and creation processes in the classroom (Cheng, Ritzhaupt, and Antonenko, 2019).

**CONCEPT OF FLIPPED LEARNING APPROACH IN TEACHING LEARNING PROCESS.**

**Effective learning:**

The term ‘effective learning’ describes methods of teaching and learning that actively involve children in their own learning and personal development.

The three basic types of learning styles are visual, auditory, and kinesthetic. To learn, we depend on our senses to process the information around us. Most people tend to use one of their senses more than
the others. The term “effective” has been widely used, it only makes sense when context and goals are specified.

**Learner characteristics for effective learning:**

The definition of effective learning suggests that the effective learner: Is active and Strategic, skilled in cooperation, dialogue and creating knowledge with others, able to develop goals and plans, monitors her/his own learning and is versatile across contexts.

**Teacher using flipped approach for effective teaching:**

Flippe learning approach is most frequently used in science and mathematics classroom because of the close relationship between STEM subjects. Technology allows teachers to make the most of classroom time and student-motivated learning. Currently high schools and institutions of higher education are leading the charge in adopting the flipped learning approach. Lecturing in home work and homework in class. Class time is spent doing hands-on work and thinking critically, teachers can easily plug knowledge gap and work to address them in real time rather than waiting until test day to see how much a student understands.

**Learner:**

Learner is the person who receive the knowledge from the teacher, elders, parents and society. Learner should have freedom to learn in their own space. Trend of educating pupil is moving from conventional to experiential learning, inquiry-based learning, and activity-based learning. Then teacher centered education gradually modifying as learner centered education so that learner is the key point in the education. Many researchers are assured that the learning is effective only when the learner is voluntarily involving in the process of learning. So, the main objective of education is to ensure the learner for long stability.

There are mainly four types of learning they are auditive learning, visual learning, haptic learning and intellect learning. “By listening and speaking”, visual learning “through the eyes, by watching”, “by touching and feeling”, learning through the intellect.

**Flipped learning approach:**

The name ‘flip’ means ‘Invert’. The learning style is inverted means class is done at the home and home work is doing at class room. Teacher sending the concepts through the videos, screen casts, podcasts, power point presentations and text documents. etc. then pupil doing homework in the class room by discussing with their peer friends. Teacher can clarify the concept doubts by doing practical activity experimentation and conducting debuts, quiz, etc., here the ‘teacher not as a sage on the stage’ but ‘act as a guide on the side of the learner’.

Flipped learning is “a pedagogical approach in which direct instruction which moves from the group learning space to the individual learning space and the resulting group space is transformed into dynamic. Interactive learning environment where the educator guides students as they apply concepts and engage creatively in the subject matter.”

Flipped learning is a pupil centered learning approach consisting of two parts; pupil doing interactive learning activities during the class tenure and individually listen the class out of the class time.
the pupil will perceive the concepts independently and analyses the difficult words by exploring in the classroom activities.

It is defined as “School work at home and home work at school.”

Mull [2012] defined “It is a model that provides students to prepare themselves by watching videos, listening podcasts and by reading text documents.”

Kari M. Arfsrom [2014] defined “a pedagogical approach in which direct instructions moves from the group learning space to the individual learning space, and the resulting group space is transformed into a dynamic, interactive learning environment where the educator guides students as they apply concepts and engage creatively in the subject matter.”

**Flipped Learning Pillars:**

The Flipped learning distinguishes a flipped classroom. these terms are not interchangeable. flipping a class can, but does not necessarily, lead to flipped learning. countless teachers may already flip their classes by having students read text outside of class, watch supplemental videos, or solve additional problems, but to engage in flipped learning, teachers must incorporate the following four pillars into their practice.

**FLIP** means.

- **F** - Flexible Environment.
- **L** - Learning Culture.
- **I** - Intentional Learning.
- **P** - Professional Educator.

**Flexible environment:**

Flipped learning allows for a variety of learning modes educators often substantially rearrange their learning spaces to accommodate a lesson or unit, to support either group work or independent learning. pupil create flexible spaces in which students choose when and where they learn. Furthermore, educators who flip their classes are flexible in their expectations of student timelines for learning and in their assessments of student learning.

**Learning Culture:**

In the traditional teacher-centered model, the teacher is the primary source of information. by contrast, the flipped learning model deliberately shifts instruction to a learner-centered approach, where in-class time is dedicated to exploring topics in greater depth and creating rich learning opportunities as a result, students are actively involved in knowledge construction as they participate in and evaluate their learning in a manner that is personally meaningful.

**Intentional learning:**

Flipped learning educators continually think about how they can use the flipped learning model to help students develop conceptual understanding, as well as procedural fluency. They determine what they need to teach and what materials students should explore on their own. educators use Intentional content to maximize classroom time in order to adopt methods of student-centered, active learning strategies, depending on grade level and subject matter.
Professional educator:

The role of a professional educator is even more important, and often more demanding, in a flipped classroom than in a traditional one during class time, they continually observe their students, providing them with feedback relevant in the moment, and assessing their work. Professional educators are reflective in their practice, connect with each other to improve their instruction, accept constructive criticism, and tolerate controlled confusion in their classrooms. While professional educators take on less visibly prominent roles in a flipped classroom, they remain the essential ingredient that enables flipped learning to occur.

NEED AND IMPORTANCE TO FLIP THE CONTENT:

The flipped learning approach is now evidently need for effective teaching learning process. The learner could not be an audient should explore the knowledge progressively in the context of education. Pupil while receiving the classes through media they adjust the space of his/her convenient, then in between the class frequently can able to listen, observe the class by pausing, rewinding and continuing the class. So, that pupil can be able to receive the content effectively.

- Pupil can be effectively communicating the ideas and exploring their knowledge in classroom.
- Pupil aware and adopt the technology skills in their pedagogy and bring positive change.
- Pupil out-of-class engaging in observing and listening reading the class content and in-class engaging themselves in participative and experiential activities so that the learning can be permanent in the mind of the learner.
- Pupil can freely communicate with the teacher about the classes then teacher can channelize the pupil to grasp the content repeatedly so that the bonding between pupil teacher will be strong.
- Collaborative works, peer discussions, self-efficacy, experiential learning, leadership qualities, systematic study and healthy environment are developed in the mind of the pupil.
- Another important need of flipped learning is students are able to learn deeply and retain material in better way.
- Flipped learning approach is mainly based on the five themes.

Flipped learning approach five important themes are:

2. Increase in student performance
3. Positive influence on cognitive domain
4. Positive influence on affective domain
5. Positive influence on soft skills.

TIME LINE AND SEQUENCE OF EXISTENCE OF FLIPPED LEARNING:

Many researchers assured that flipped learning is very effective in developing the outcomes of learning. Assessments and response or adjustments individually to every learner in-class generate increasing of the understanding of concepts (Bergmann and Sams, 2012 a).

Integrating the pre-class and in-class compel the students to have more responsibilities and obligations so that learners participate the class more enthusiastically and the outcomes can be increased along with self-efficacy (Namik, Boae, and Jeong-Ime, 2014). Doing assignments in class gives educators better insight into learner difficulties and learning styles (Fulton, 2012).
STEPS FOR FLIPPING THE CONTENT:

The main objective of learning is, the learning could be permanent and the learner should be aware and to generalize the concept. so, as to make the education system strategies and teacher efficiency is important. apart from this the goal of flipping class is to make practice more pupil centered pedagogy there by engaging learner in active learning experiences the following steps are important.

1. Define the content scope, learning objectives and instructional strategies.
2. Students gain familiarity with new material before class.
3. Activities and motivate pupils to prepare them for class.
4. In-class activities that provide students opportunities to deepen understanding.
5. Post class activities that extend student learning
6. Ongoing evaluation and assessment.
7. 

1. Define the content scope, learning objectives and instructional strategies:

   The teacher can only get success in doing the class is because of planning, before and after the class. The teacher has to plan that what content should be do, which objectives should achieve after the class, and what are the instructional strategies (Technology) are suitable for to teach the content, in how much time the pupil will perceive the knowledge, what time should be limit to taught the class, etc., these are all the points must be fulfill by the teacher before doing the class then only class will be fruitful.

2. Students gain familiarity with the new material before class:

   After planning to do the class the teacher sending the content or material to the pupil through the electronic media before one day to the class.so that the pupil gain familiarity with new concept or material before the class. The pupil can be able to perceive the content and analyzing that in their own pace called self-learning. teacher is instructing the pupil parallely in the content.so that pupil can gain the knowledge before going to the class.

   ➢ Media examples are master’ video, power point presentation, concept map, self -created videos, Infographic template, curated material, audacity, 3D animation videos, text documents screencasts and online multimedia modules etc.,

   ➢ Electronic media platforms to send the material are wats app, face book, instagram, teacher use the Edmodo, Khan academy, Flipgrid, Formative and Kampster etc.,

   Mainly the teacher must aware about the abovementioned medias and the media platforms to use and also how these are best to use in the creation of content. Then the teacher should know will my students be able to process this content format in this format effectively.

3. Activities and motivate pupils to prepare them for class:

   When the pupil familiarizes themselves with the content prior to class, next day when they enter to the classroom, they engage in the activities which are all preplanned by teacher to pupils related to the concept. by providing clear directions to the pupil and access to the material what the pupil needs in- class activity. main thing is the teacher must have the time maintenance knowledge for in class activities. so, that the teacher and pupil can completely involving in the in-class activities.
4. **In-Class activities that provide students opportunities to deepen understanding:**

   The teacher provides the opportunities to all the students to participate and can gain deepen knowledge in the concept by conducting activities in a pre-planned systematic method. Every student is collaborating with other one and mutual understanding by discussion in concepts will be increasing.

   **Flipped learning approach In-classroom activities.**
   - Meaning Making Activity
   - Practical Activities.
   - Live Experiment in Classroom
   - Think -Pair-Share Activity.
   - Step Ladder Technique
   - Brain Writing Activity.
   - Star Bursting Technique
   - Rapid Ideation Technique
   - Peer-to-Peer-Teaching.
   - Explaining Activity. Etc.,

   The teacher should keep in mind that the above-mentioned activities are to motivate, build confidence and to increase the intelligence quotient [IQ] level, teacher conducting activities. The teacher’s curiosity, creativity and intelligence are important with this when the pupil is having the doubts or some students are not aware about the sent material to their home, only in that situation the teacher can do all the activities, conduct the live experiments. other than this no need of conducting activities.

5. **Post class activities that extend student learning:**

   After the in-class activities also if pupils are having interest and curiosity in understanding the concept teacher can provide the facilities to interact themselves and to peer to peer discussion chances in the classroom. Teacher can extend the learning duration and practicing period in the classroom. this stage leads the pupil to revise their thinking to really master the material and be successful.

6. **Ongoing evaluation and assessment.**

   We already know that in flipped learning the home work is done in classroom and class work in home so that teacher while planning for the class, parallelly planning to evaluate the students. Home work is done by discussion and with teacher assistance in classroom.

   Flipped learning approach evaluation techniques.
   - Worksheets
   - Boosting Cards
   - Peer Evaluation Questions
   - Open Book Test
   - Open Ended Questions
   - Passage Writing by analyzing Concept Map
   - Google Form
   - Effective Narrating, and Concept Elaboration
   - Hot Potato Chips activities. Etc.,

   Ensure that all the six of these steps are closely and they support the learning goals and objectives.
PROS AND CONS IN FLIPPED LEARNING:
In every concept there exists advantages and disadvantages. In flipped learning also pros and cons are listed below:

Pro’s:
➢ Pupil utilizes quality time at school and Home.
➢ More effective pedagogy to learn effectively.
➢ **Access easier for parents to see what’s going on in their child learning.**
➢ Flipping allows students to learn at their own pace called self-paced learning.
➢ Flipped content can be richer through curation and continuous improvement, self-Empowerment.
➢ A flipped classroom promotes student-centered learning and collaboration and connectivity between the pupil.
➢ Flipped learning is customized, active, and engaging.
➢ Flipped lecture videos help student review and glance for exams.

Cons:
➢ A flipped classroom can require more preparation time
➢ Flipping the classroom assumes that students will complete the out-of-class preparation.
➢ It can create or exacerbate a digital divide.
➢ It relies on preparation and trust.
➢ There is significant work on the front-end.
➢ Not naturally a test-prep form of learning.
➢ Instead of people and places is increased.
➢ Some students with special needs may need extra support at home support that might not always be available

Conclusion:
After understanding the points discussed above, we can conclude that the main theme behind this flipped classroom is pupil may learn a lot in a flipped learning than the traditional learning. It is by observing, listening and perception of concepts is very more effective. mainly the home work is doing in the presence of teacher there we can avoid coping and rote method understanding.

So that the pupil and teacher can build higher level skills. develops psychological key concepts like, motivation interest and curiosity towards learning. The teacher can able to prepare the models, teaching aids and course materials better, and helps to develop valuable life skills like leadership problem solving and critical thinking in students.

Apart from these issues the flipped learning is more effective because of hands on approach to improving student achievement in their education ladder.
References:


5. Steps for planning my Flipped lessons. – originally published at flipping- Martha amirez


10. Journal of Technology and Science Education