Role of Class Teacher in Blended Learning Environment

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Abstract

Blended learning is almost perfect approach that covers both activities including class interaction with teacher and teaching aids such as virtual teacher, digital media etc. BLOSSOMS (Blended Learning Open Source Science Or Math Studies) is an initiative of MIT to develop a huge open and free resource of conceptual videos for high school math and science levels produced and gifted by volunteer faculty members initially from MIT and beneficiaries are the educators in various countries.
In Pakistan, various techniques were used to promote BLOSSOMS during last few years. Recently, a novel experiment was exercised i-e "Blended Learning Teaching Competition". It was realized that classroom teacher is an anchor person of whole blended learning show. This role is responsible for the best utilization of BLOSSOMS modules and involvement of learner. At the end, lesson learned have been suggested for better execution.

1 Blended Learning

Learning always includes a combination of inputs such as new information blending with existing knowledge, concepts from a lecture reasoning with personal experience, a diagram illustrating a new viewpoint on a written description or discussion with peers clarifying chapters from books [1]. With advent of Information and Communication Technology (ICT), blended learning modernized and considered to be the proper combination of technologies in addition to face to face learning [2]. Blended learning is also a bridge between traditional teaching and online teaching [3].

Blended learning approach may be considered as extended form of traditional learning because it is a mixture of technologies just like a delicious soup which is the appropriate mixture of ingredients. Learning impact depends upon the proper usage of technologies with face to face teaching enrolments [4].

2 BLOSSOMS Initiative

BLOSSOMS (Blended Learning Open Source Science Or Math Studies) is an initiative of MIT (Massachusetts Institute of Technology) LINC (Learning International Networks Consortium) to promote e-learning by joint effort of educators from MIT and other countries. The objective of BLOSSOMS is to build an online resource of free and open video library. These conceptual videos are contributed by volunteer teachers of MIT and other partner countries. Initially video modules developed in five areas and these are mathematics, engineering, physics, biology and chemistry. These video modules are not aimed to change the existing syllabus of high school level but rather to improve the teaching for conceptual learning, promote the critical reasoning and creating interest for advanced studies. These video modules are not simple video lectures; these are based on blended learning pedagogy.[3, 5, 6].

Demand-supply aspect of BLOSSOMS initiative may define supply side as development of BLOSSOMS video modules and demand side is the usage of these video modules.

This paper focuses the demand side. Demand always encourages the expansion in supply. LINC's aim sports the demand side

LINC's premise is simple and compelling:

> ***With today's computer and telecommunications technologies, every young person can have a quality education regardless of his or her place of birth [3].***

3 Blended Learning Pedagogy

Traditional teaching approach is teacher-centered. This approach based on pedagogies that focus on memorization, and overlooking the logical/conceptual understanding, logical reasoning and implementation of learning. In such a way, students are not involved actively and overloaded with knowledge to be memorized. Innovative minds may ignored in these conditions [7].

BLOSSOMS pedagogy is very optimum in nature. BLOSSOMS video module is far different from a simple video lecture. Generally, it consists of four to five small segments of duration 4-5 minutes each. BLOSSOMS teacher gives concept in a segment and at the end of each segment gives a small class activity. Then class attention transfers to classroom teacher and he/she should have good skills to facilitate class activity including discussion, calculation, practical and a particular daily life experience. After this activity, students gains some knowledge and BLOSSOMS module resumes for next segment. This iterative process continues until the module is over [8].

Blended learning is challenging for the teacher due to the modification in responsibility and due to a sense of danger that teachers may get stuck in the role of just giving technical advice while e-learning is highly motivating for the students, especially for shy students, without being a boredom for those who are achieving well in the more traditional school learning environments [9].

Teachers are interested in using blended learning for the following reasons

(1) to improve the his/her professional profile, and
(2) to achieve learning benefits facilitated by Information Communication Technology (ICT) but in perspective of school culture otherwise they are strongly connected to the established student examination system [10].

4 Teaching Competition

Government of the Punjab initiated a grand youth festival 2012; consisting number of events and competitions related to various fields of life including sports, agriculture, health, art & craft, education, IT and engineering. It was planned to promote blended learning skills using BLOSSOMS pedagogy. Young teachers have passion for innovative teaching skills and love to teach under the shadow of experienced BLOSSOMS teachers, such as faculty of MIT, Virtual University (VU) of Pakistan, Quaid-i-Azam University etc.

This competition was focused on the promotion of blended learning approach by using BLOSSOMS pedagogy among the young teachers to enhance their teaching skills with following objectives.

- Promotion of BLOSSOMS pedagogy
- Increase in the demand of BLOSSOMS video modules
- Awareness of skills for hosting virtual teacher
- Exhibit the experience to conduct the class activity
- Ability to involve the class
- Create model videos to understand the BLOSSOMS pedagogy

Over 120 thousands promotional emails about this competition were sent to young teachers having content about BLOSSOMS, its pedagogy and topics. Many hundred posters were made presented on main notice boards of institutes. Management offered teachers to register themselves for a certain BLOSSOMS topic. Almost 300 contestants were registered. Event management announced to send the reply of following questions by email as first level evaluation.

> Q1. How many segments in selected video topic?
> Q2. Write down question/class activity of each segment?
> Q3. Write down the learning outcomes of each question mentioned above?
> Q4. What materials, if any, will students need for the in-class exercises for each segment?

Justification of first level evaluation was to shortlist the serious contestants must have exposure of BLOSSOMS pedagogy by giving answers to above mentioned questions. Sixty contestants replied and selected for next level. Contestant's minimum qualification was graduation or to be the student of graduation degree and age was less than 35 years. On the request of event management, three prominent educationists accepted to become jury members. A few groups of high school students were selected as active learners Jury had a right to request the contestant to host one or two segments of BLOSSOMS video module for competition. As per BLOSSOMS pedagogy, contestant performed as class teacher. Thirty eight contestants hosted/ presented BLOSSOMS topics. Jury evaluated the performance as per BLOSSOMS concept [11, 12].

The contestant, who got top position, carried out class discussion during the first break. She demonstrated experiment in second break. She tried to involve the students in both sessions and got the success. i-e true spirit of BLOSSOMS. The contestants, who got second and third positions used class discussions and quoted examples of similar scenarios to facilitate the answer of BLOSSOMS teacher.

5 Discussion:

Discussion started with following quotation

> *To learn without thinking is fruitless; To think without learning is dangerous*. Confucius

Contestants agreed on the importance of e-learning such as implementation of BLOSSOMS in developing countries as an enabler for economic development and prosperity [13]. The major objective of blended learning is to refine the quality of teaching in classroom [14]. A suitable blend of online, offline resources and class teacher resulted to offer the best expectation. The ratio of the blend is measured by an analysis of

the range and nature of the problems faced by learners [15]. One school of thought believes that learner-centered development of blended learning, the choices of what and when to blend will increasingly be manipulated and controlled by learners rather than by the teachers. In this way, students will involve and operate blends that fit their needs and preferences [16]. On the other hand, research results indicate that blended learning approach is more effective than the exclusively online learning approach [17]. While some teachers feel a sense of danger that teachers may get fixed in the role of just giving technical advice [2]. It is a real challenge of addressing tensions such as lack of training, time to explore and incentives for innovations, between professional identity and pedagogical reform is a complicated issue [18].

6 Lesson Learned

There are following few lessons were learned from blended learning teaching competition for future reference.

a) All BLOSSOMS partner countries may conduct such type of teaching contests for the promotion of BLOSSOMS pedagogy with thrill and competition.

b) Competition recorded performances which could be used as training asset for classroom teacher that how to use these BLOSSOMS video module. Web-based teacher trainings are very effective for mass level [19].

c) Teachers and learner should know the difference between video lecture and BLOSSOMS video module.

d) While hosting a BLOSSOMS module, classroom teacher should follow the sequence of segments. Each segment has its own learning outcomes. Students might be confused on disordering the segments by classroom teacher.

e) With respect to BLOSSOMS, virtual and classroom teachers must be on same page means that they must have same teaching goals. Their all efforts lead towards common learning outcomes. All blended learning resources must be cohesive [20].

f) Most of BLOSSOMS video modules fall in blended Problem Based Learning (PBL). Therefore, classroom teacher and students should be familiar with blended PBL [21]

g) The self-rating technique, utilizing video replay could be an effective method for modifying teacher performance to some extent. Teachers who employed this method significantly out-performed teachers from all levels who did not use the self-rating instrument and consistently improved their performance from video to video [22].

h) There should be tremendous promotion required to aware the difference between self-learning video lecture and BLOSSOMS pedagogy

7 References

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Figure 1: Poster of Blended Learning Teaching Competition

Figure 2: Judges (Dr. Naveed A. Malik & Dr. Sonia)

Figure 3: Zille Huma is demonstrating chemical reaction

Figure 4: Zille Huma from Garrison School System got First Position. She is performing on BLOSSOMS topic Recognizing Chemical Reactions

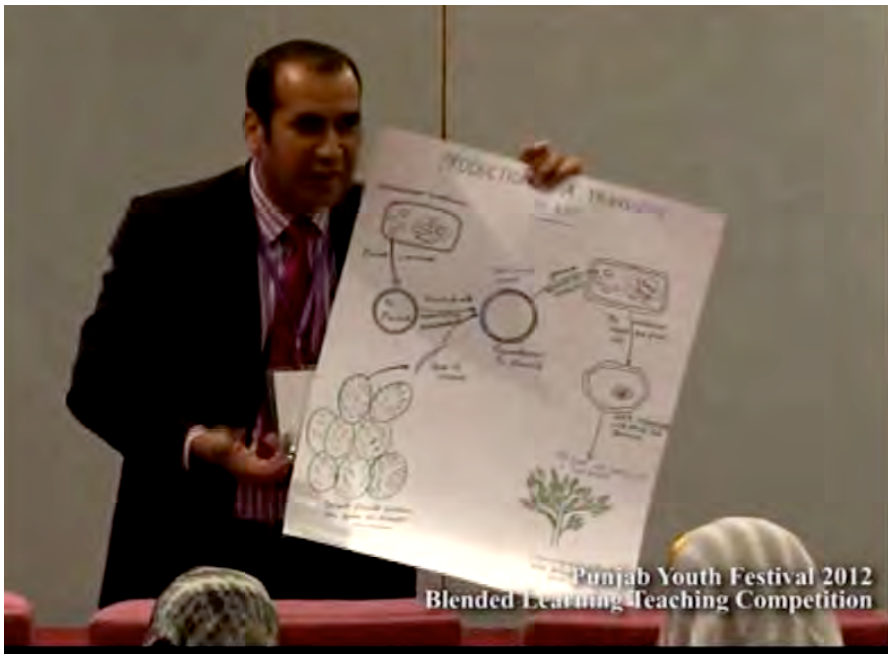

Figure 5: Muhammad Aslam Shahzad from Aitchison College Lahore got Second Position is performing on BLOSSOMS topic Biotechnology: Can It Help in Making the Desert Green?

Figure 6: Naqsh-e-Mansoor from Institute of Advanced Materials, Bahauddin Zakariya University is performing on BLOSSOMS topic Recognizing Chemical Reactions

Figure 7: Fazeela Yaqoob from Govt. Degree College for Women, Pindi Bhattian, District Hafizabad is performing on BLOSSOMS topic Geologic Time: The Ticking of Our Planet's 4.6 Billion Year Clock

Figure 8: Kalsoom Sehar from Garrison School System is performing on BLOSSOMS topic Blood: The Stuff of Life