Asynchronous Learning Practices & Tools

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ABSTRACT - Asynchronous learning is now an essential part of education system. With the increase of students and broadband Internet facilities, asynchronous style of learning is gaining popularity day-by-day. This style of learning is completely based on collaborative learning strategies. Asynchronous learning includes methods like video conferencing, discussion boards, emails, blogs and many more. Software like moodle, skai and dyknow are also playing vital role in asynchronous learning. The success of asynchronous learning completely depends on the instructor's potential, online study material, online discussions and Internet infrastructure. In a nutshell it is a powerful and effective way of spreading knowledge to remote learners in less time.

Keywords—Threaded Discussion, asynchronous Learning, Blogs, Discussion Boards, Video Conferencing, MOODLE and SKAI.

I. INTRODUCTION

Asynchronous Learning plays a vital role in education system. It provides the facilities to spread knowledge to remote places. It is basically a web-based teaching. Online course material and virtual classrooms are the main area of concern in asynchronous learning. It also includes online tests and quizzes. This approach combines self-study with asynchronous interactions to promote learning. It also helps in reducing cost through virtual-classrooms and web based contents. To make asynchronous learning feasible, necessary tools should be provided to teachers to develop online study material. This approach includes methods like conferencing, discussion boards, blogs, chat, telephonic conversation and video-conferencing etc.

II. ASYNCHRONOUS LEARNING PRACTICES

There are few best practices required for asynchronous learning. These practices are: -

A. The mentor should make topic interesting & relevant.

The online discussion and study material should be interesting one and must have relevance to students and subjects. Remember that an interesting discussion are always interactive and helps in encouraging participants to join discussions next time [1].

B. Motivate learners for timely participation.

Timely participation is an important factor. A group discussion is more successful when more participants participate and in a timely manner. During first one or two discussions or conferencing, let the participants set the parameters and then follow-up these parameters in subsequent discussions [1].

C. Always ask open-ended questions during online discussion.

Open-ended dialogue or discussion is more significant. Students feel interesting and interactive when there are different opinions and in such environment they put their best efforts to validate their opinion by logics. They start studying more to justify their opinions and solutions [1].

D. Motivate students for clear & concise discussions.

Students should exchange clear and concise information either in dialogues or in written. Short inverted paragraphs and bullet points are more effective. Clear and concise discussion also avoids confusions [1].

E. Creating & maintaining safe environment.

Safe environment demands polite, honest, open and respectful environment. Such environment encourages students to ask more questions freely. Such environment also encourages them to express their opinions strongly during discussions. The instructor should not get frustrated due to long discussions and high number of queries. These queries may be in the form of discussions or emails [1].

F. Make expectations clear.

During online learning, participants have their own expectations and beliefs. Usually a topic is given few days back for discussion. Participants explore that topic and sometimes they find solutions and sometimes not. They come for discussion with lot of queries, opinions and expectations. The discussion should end with solutions. This is what students required [1].

G. Focus on group discussion.

Group discussion plays a vital role in asynchronous learning. There should be at-least four to six participants' in-group discussions. During discussion they can exchange dialogues, text (chat) and emails. The instructor should assign roles to participants for better group discussions [1].

H. Rotation required on groups.

Rotation is required in-group discussions. The roles of groups should be changed in-fact group members should also be rotated. This approach helps in enhancing their knowledge and sets a well tunning between participants [1].

III. AYNSCHONOUS LEARNING METHODS

There are various methods used for asynchronous learning. Some very useful and commonly used methods are mentioned below:

A. Learning By Video Clips

Video clips play a vital role in asynchronous learning. These clips should be wisely prepared and must be able to clear the course contents. Students pay more attention to videos as it gives them better opportunity to understand the concepts. All the videos should be converted into streaming formats before uploading. One best approach is to ask the students during online discussion that what they learn from the videos and how useful they were. One another better approach is to record live lectures and then upload it on Internet for students watching and learning somewhere else. The length of such videos should not be too long.

B. Learning Through Discussion Boards

Online discussions are the best method used in asynchronous learning. The success of discussion highly depends on the instructor. The instructor should plan the whole discussion and should spend some time to think that how to relate it to the learning objectives, how to make it more interactive and interesting. It should also be planned that how many discussions are required per week or month. During first online discussion, focus should be on learning objectives rather than on teaching. During discussions instructor should ask questions that get the students to think about concepts behind their arguments, questions that get the students to think about the beliefs that they base their arguments, questions that get the students to think about the support of their arguments and questions that get the students to consider other view-points. One another important thing is to help students understand their roles as well as instructor's role during discussion. This kind of discussions is also known as threaded discussions [3], [4].

C. Learning By Blogs

Blogs are written for a wider audience who may or may not be listening in. The open nature of blogs also allows for communication between students in other classes at other institutions who are studying the same topics. Blogs are basically organized in reverse chronological order and focus on most recent inputs [1].

D. Learning By Emails

Email and Internet comprise the core technologies of ALN. Email is very useful in terms of cost and efficiency and at the same time it is also very handy. Emails can be used for receiving and submitting assignments, sending and receiving notes and for asking, receiving and answering queries. The main drawback of email is that responding to email communication is labour intensive and there are no volume controls than refusal to answer all or certain type of email messaging. Writing email helps the students to improve their skills in structured communication and in reflective writing.

E. Learning Through Virtual Class-rooms

A virtual classroom is a way of learning course contents through audio, video and chat sessions. Virtual classrooms helps in decreasing the training budget and at the same time it helps students to learn things at remote places. To make it practical, this scenario needs virtual classroom softwares and high speed Internet. Few of these softwares are free of cost (open source) and few are commercial [2].

Open Source/ Free Tools for video conferencing
DimDim
Wiziq

Commercial video conferencing tools
Webex
Adobe Connect

IV. ASYNCHRONOUS LEARNING TOOLS

There are various tools used for asynchronous learning. Few of these are softwares for interacting with the students. Some very useful and commonly used tools are mentioned below:

A. *MOODLE*

Moodle is very popular open-source asynchronous learning software and is free of cost. It provides virtual learning environment. Moodle helps mentors to design online courses. Moodle is software that can be easily extended by adding plug-ins. It can be used on both UNIX as well as on WINDOWS platform. It is designed in PHP. The functionalities provided by moodle are [7]:
Uploading of contents
Online submission of assignments by students
Collecting and organizing students grade
Online attempt of multiple-choice questions
Administration of student groups

B. *SKAI*

SKAI is also open-source software for online learning. It allows educational institutions and organizations to develop a common learning environment. It is developed in JAVA language. The functionalities provided by SKAI are [7]:
Online grace book
Live chat
Uploading assignments
Online testing
Document distribution

C. *LISTSERV*

It is basically automatic mailing list server. When e-mail is addressed to LISTSERV mailing list, it is automatically broadcast to everyone on the list. Listserv are an "automatic e-mail service" that sends e-mails that can be read by the recipients at any time. One important aspect of Listserv is that they cannot be replied to and are only delivered to subscribers. Listserv can be used to send out weekly newsletters, weekly notes, weekly assignments in no time; they are informative, can be read at any time, but cannot be replied to [6].

D. *DYKNOW*

Although it was not designed and created for online learning, but now it is equipped with online learning features. It is now

widely used as online classroom software for a variety of learning environments. One such example is Georgia-Savannah, who had used dyknow in blended distance learning. The various functionalities of this software are:
Personalized notes can be added
Personalized notes can be saved
Personalized notes can be replayed at later date
Blocking applications
Audio/Video relay
Monitoring in wireless environment

V. HINDRANCES IN ASYNCHRONOUS LEARNING

There are various hindrances in asynchronous learning. Few of these are mentioned below [5]:

One big problem in asynchronous learning is that you have good knowledge of computers especially Internet fundamentals. You must know how to get online, how to register yourself, how to use web cam and how to submit and receive assignments.

In face-to-face learning the instructor can assess student's performance immediately by asking questions and by observing which student's are paying more attention to him. On the other hand in asynchronous learning the instructor cannot immediately judge student's performance and potential. The judgement takes more time.

It is not possible to offer all courses online. Asynchronous style of learning has its own limits. For example it is very difficult to have online nursing course.

To make asynchronous learning feasible a good infrastructure is required which take lot of time and increases cost.

One big problem in asynchronous learning is that instructors may not be available when students are studying and need help.

A big issue is managing computer files and online learning softwares seem complex for students having beginner level computer skills.

VI. CONCLUSION

Asynchronous learning is today's demand. It is the best way of teaching students located at remote places. An excellent infrastructure is required to make it feasible. The initial cost of establishing online learning is high but it is cost effective in later stages. Success of asynchronous learning totally relies on the instructor's skills. So trained faculty members should be appointed to prepare online study material.

VII. REFERENCES

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