

Personalised, flexible and blended learning features of moodle-LMS

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ABSTRACT

The present paper reflects on employing engaging and interactive online learning environment of Moodle-LMS platform for improvising e-learning and traditional face to face mode of learning by integrating the features of personalised, flexible and blended learning with them. It elaborates the utilities of Moodle-plugins offering these features of learning. It also states the benefits, challenges and possibilities of integrating Moodle with mainstream school and higher education.

Keywords: Personalised learning, flexible learning, blended learning, learning management system (LMS)

Moodle is free and open-source software learning management system developed for e-learning courses, open and distance learning and blended learning in school as well as higher education. Its various plugins create interactive learning environment with ample scope for personalised, flexible and blended learning and thus, it shows advancement over traditional face to face learning and e-learning. Its customized management features of creating private websites for different online courses based on pedagogical or andragogical principles

has developed it as one of the most widespread learning management systems across the globe.

Personalised Learning and Moodle

Moodle's fully self-paced courses offer personalised learning opportunities to the students where no instructor is involved. The students can progress and learn through the resources and the activities within the course with their own pace and style of learning. For this purpose the courses are created with interactive features like embedded video, audio, animation, games and images which provide various types of learning stimulations as well as simulations for engagement of learners with diverse learning styles and their advancement through the process of learning with their own speed and choice of learning experience/task. There are built-in media tools which are used to

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easily embed video, audio, animation and images into the content. There are built-in game features, glossary terms, quiz and games like Sudoku, hangman, Snakes and Ladders etc. which help the users accomplish the task in an interesting and interactive way.

There are basically two types of Moodle-plugins which promote personalised learning- Welcome message and Progress bar. Welcome message provides the confirmation to the user about creation of her or his account with the moodle and guides the user on the next steps to progress through the content. The clear and positive statements of the welcome message motivate the users to move step by step with enthusiasm. The built-in progress bar gives the user as well as the instructor feedback about their advancement through the process of learning. .

Moodle has several communication features including Wiki, workshop, forum, survey, chat, and feedback functions through which the users can collaborate among themselves utilising each others' resources/materials, ideas and feedback and thus co-construct learning. This collaborative content-driven learning practices with moodle gives another wing to personalised learning.

Personalised learning feature of Moodle can help students in our traditional face to face set up as well as e-learning to learn the content with their own swiftness choosing their own type of learning activities and the materials. The engaging, interactive and collaborative learning environment creates ample opportunities for the students for self-paced learning.

Flexible Learning and Moodle

Moodle provides the users with opportunity to access the content of the course any time and any where given that they have access to internet connectivity. They have flexibility in terms of selection of learning experiences and materials suiting to their own mode of learning. There is now greater flexibility for the users as moodle is also accessible on mobile devices. Thus, it encourages mobile e-learning. It also facilitates learning in various media. Its content can be translated over 100 languages; hence, people from various culture and language backgrounds across the globe can pursue courses with

Moodle. The multimedia format of the content adds greater flexibility to the users having diverse learning preferences for their in-depth comprehension of the content. The collaborative and interactive learning environment created by group, forum, chat and wiki features of Moodle gives flexibility to the users to share their ideas and resources for co-constructive accomplishment of various learning tasks. Uploading and updating the content of the course is accessible to the instructors or administrators as well as the users. The users not only read the content but also serve as stakeholder in its development. They can continuously participate in quality improvement and updating of the content by easily accessing editable PDFs, online articles, journals, videos and audio.

Moodle also provides some flexibility to the users for assessment of their learning. Advanced grading methods provided by Moodle-rubrics help the students connect directly to courses and assessments. The user can have an innovative testing by choosing her/ his own set of questions from pre-created set of items. The users' chats, wikis, blogs and forum messages and the uploaded assignments are alternative means of assessments giving adequate space for continuous and comprehensive evaluation. Moreover, custom reporting feature of Moodle continuously aware or report the users about their level of engagement with the course, its various activities and materials. The course administrator can send messages in bulk as reminders to the participants who are not active and engaged with the course in order to revert and retain them back to the course. Moreover, through configuring report feature the user can pool any learning information that they require.

Blended Learning and Moodle

Moodle-LMS is being increasingly used for amalgamation of face to face mode of learning with online learning. It helps the instructor to provide the users with real time access of her/his face to face sessions in online environment. These face to face sessions can be recorded and played back whenever required. The users can also post their real time responses and queries to the instructor and other users. Videoconferencing can also effectively be launched into through Moodle.

Furthermore, blended learning feature of moodle can extensively used for online induction, training, workshop and refresher courses for professional development of teachers, teacher educators and educational researchers. It enables universities, colleges and school students benefit from high quality learning experiences online.

There are two popular Moodle- plugins that offer instructors the ability to schedule in-person sessions and launch into video conferencing. These are the Webinar and BigBlueButton plugins. These plugins work by integrating Moodle with web conferencing platforms for delivery of instructor-led sessions. However, there are certain differences between them. Webinar plugin acts as an intermediate platform for organising webinar or instructor-led sessions by joining the Moodle with Adobe Connect web conferencing tool whereas, BigBlueButton functions as a stand alone web conferencing tool for eLearning courses. These plugins enable the real-time sharing of slides, audio, video, chat, desktops and a virtual whiteboard. Moreover, to schedule web conferencing in Moodle the Face-to-face plugin is commonly used so that instructors can manage sessions where learners are required to register.

In higher education, school education and other set ups where regular training is required for continual professional development of the employees Moodle's online compliance training feature can be a brilliant alternative to track attendance, participation, grading and award certificates for course completion. For this purpose, moodle has three plugins- Subcourse, Attendance and Certificate. The Certificate plugin allows awarding a PDF certificate/diploma to participants once certain criteria have been met within the course. The Subcourse module gives instructors the ability to restrict access to activities within a course until achieving a required grade within another course. The Attendance plugin can be used to keep track of a participant's engagement within a course.

Integrating Moodle-LMS with Mainstream School and Higher Education

Integration of Moodle-LMS with mainstream school and higher education can positively change its functioning for its qualitative improvement and quantitative

expansion. Personalised, flexible and blended learning features of Moodle can create greater scope for bringing different institutions together to a shared platform of education, research and innovation.

It can facilitate universalisation of quality school education by reaching out children of all sections of society and all corners of the country including the marginalised and underserved ones. It can create pool of learning resources and human resources among government, private, public schools and NGOs for their effective networking and collaboration. It can overcome the dearth of quality teachers, number of schools, school buildings and learning materials and thus, enhances educational equity as well as mobility. It helps the learners from weaker communities to continue their education with their own speed and pace despite of being engaged in family occupation and household works and access education of reasonable quality. Its learning management system keeps track of admission, participation, progress and achievement of the learners in an institution or a network of institutions and also produces the report about the same whenever required. Thus, it creates manageable database for keeping record of dropouts, children at risk and marginalised group of children.

It promotes the culture of learning beyond text books and classrooms. It uploads the content with a variety of formats, learning experiences and resources and makes use of alternative learning cum assessment activities/tools like blogging, wiki content development, group assignment, projects, discussion, virtual field trip and virtual laboratory activities relatively easier, manageable and frequent. The learners may connect with the learners of other schools in other localities, regions, states and countries which broaden their horizons of knowledge and experiences.

It can give a new status to higher education by facilitating vertical and lateral mobilization, choice based credit system and alternative modes of learning and assessment. It may strengthen networking of resources among departments of the university and different universities. It gives new scope to the National Mission on Education through ICT, National Digital Library, Rashtriya Uchchar Shiksha Abhiyan etc.

Integration of Moodle with teacher education will be greatly helpful for sharing innovative practices among teachers, their continual professional development through online training, workshop, seminars and refresher courses, aligning teacher education programmes with current developments in theory and practices in the field of education and encouraging reflective practices in initial teacher preparation programme.

Though there are a number of benefits of integrating Moodle with mainstream school and higher education but it confronts certain challenges at the same time. Firstly, lack of infrastructural facilities like unavailability of or ill-developed ICT labs in schools and colleges, lack of community ICT centers and high-speed internet connectivity greatly hold back the integration of Moodle with education system. Secondly, the lack of unawareness and training on Moodle and its utilities and thirdly, indifferent attitude and rigid mind set of administrators and teachers about changes in the system do not encourage them to engage themselves in successful incorporation of Moodle with the system.

Hence, government with the help of other stakeholders should work towards development of adequate infrastructure for successful integration of Moodle with mainstream education system. Teachers and administrators should be provided with adequate exposure of functioning of different features of Moodle and its applications in educational practices.

Conclusion

Moodle is an open source learning management system used for incorporating the features of personalised learning, flexible learning and blended learning with traditional face to face and e-learning courses. It facilitates users to progress through the course content

with their own preferences of learning resources and activities as well as their own swiftness. It brings flexibility to learning by avoiding the restrictions in terms of place, time, learning resources, interactions and assessments. It blends face to face learning with online learning through the facility of online and real time delivery of instructor-led sessions, videoconferencing, online training, inductions and workshops and engaging in forums, wikis and chats. Integration of Moodle-LMS with school and higher education can greatly facilitate its qualitative improvement and quantitative expansion. But, dearth of adequate infrastructure, rigid mindset of administrators and teachers about changes in the system, their unawareness and incompetence in integration of Moodle with the system does not lead to realisation of benefits claimed by Moodle. Hence, sufficient efforts should be made through collaboration among different stakeholders of education for successful incorporation of Moodle with the system.

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