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EXPLORING MOODLE'S POTENTIAL IN TEACHER EDUCATION

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INTRODUCTION :

"The thrust of current research is no longer on comparing computer basedlearning with other media or with the teacher, but in determining whatspecific computer environments can best enhance student learning and indetermining which instructional approaches used in conjunction with thecomputers are most effective." (Thomson, Simonson and Hargreave, 1996, p.41).

The National Curriculum Framework for Teacher Education 2010 proposes special importance to ICT in Schools and e- learning. It quoted that "With the onset and proliferation of Information and Communication Technology (ICT), there is a growing demand that it be included in school education. It has become more of a fashion statement to have computers or multimedia in schools, the result being that in spite of its potential to make learning liberative, its implementation is often not more than cosmetic. It is often also touted as a panacea for shortage of teachers. These are detrimental to the learning of the child. Teacher education needs to orient and sensitize the teacher to distinguish between developmentally appropriate and detrimental uses of ICT. It needs to also equip teachers with competence to use ICT for their own professional development". This point to the needed emphasis in furthering technology utilization in Teacher education and the paradigm shift in the curriculum needed in teacher education. Our teacher education curriculum provides student teachers only the opportunity to develop a power point presentation which is often made by the computers

ABSTRACT: -

*T*eacher education needs to orient and sensitize the teacher to distinguish between developmentally appropriate and detrimental uses of ICT. It needs to also equip teachers with competence to use ICT for their own professional development". This point to the needed emphasis in furthering technology utilization in Teacher education and the paradigm shift in the curriculum needed in teacher education. Our teacher education curriculum provides student teachers only the opportunity to develop a power point presentation which is often made by the computers centres they approach. They rarely get the chance of hands on experience with the computer due to the time constraints. Our curriculum insists on a computer assisted class. There comes the importance of learning management systems like Moodle. There is a need for student teachers to learn the potential of available technology tools for the design of learning environments which can support students to engage actively with content-based learning materials, tasks and peer learners. The present paper discusses the significance of Moodle in the Teacher Education curriculum.

KEYWORDS: *Teacher education , developmentally appropriate and detrimental uses of ICT.*

centres they approach.They rarely get the chance of hands on experience with the computer due to the time constraints.Our curriculum insists on a computer assisted class.There comes the importance of learning management systems like Moodle. There is a need for student teachers to learn the potential of available technology tools for the design of learning environments which can support students to engage actively with content-based learning materials, tasks and peer learners.

It is apparent that there is a need to provide student teachers with more authentic experience of using an LMS for the design and development of courses, rather than just using a didactic approach. Programmes needed to be developed that enabled student teachers to acquire the skills (technical and pedagogical) to incorporate an LMS into the design of their future (student) learning environments effectively.

MOODLE: AN OPEN-SOURCE LEARNING MANAGEMENT SYSTEM

Moodle is a course management system (CMC)-a free open source software package designed using sound pedagogical principles, to help educators create effective online learning communities. Moodle stands for Modular Object-Oriented Dynamic Learning Environment. Moodle was developed from a social constructivist perspective by Martin Dougiamas at Curtin University in Western Australia (Dougiamas & Taylor, 2003).

The teachers and students have an active engaging role moodle.It connotes web page that can be explored in any order, courses with live chats among the students and teachers, forums where users can rate messages on their relevance or insight, online workshops that enable students to collaborate and evaluate each other's work etc.All of these features create an active learning environment, full of different kind of student-to student and student –teacher interaction. Moodle is designed to support interactive learning that provides three categories of course materials:

Static course material in which students can read the materials but do not interact with them. It includes

o **Creating labels-**We can create a label (say a welcome note, title) for any section. It is an important place to put Titles, notes etc.

o **Composing text pages-**A text page is a simple plain text page with little formatting. It can contain paragraphs and whitespace.

o **Composing a web page-**With Moodle we can easily use an editor to create sophisticated documents which can be displayed in any web browser.

o **Creating link to file or website-**We can upload and store any digital content that you have created in other applications. We can also add links to other web sites.

Interactive course material in which students interact with the materials by answering the questions, writing texts and uploading files. The interactive course contents include

o **Assignments –** Assignments are a refreshingly simple method for collecting student work. The assignment module gives an easy way to allow students to upload digital content for grading. Assignments can be submitted in the form of essays, spreadsheets, presentations, web pages, photographs, or small audio or video clips. Assignments can be online or offline.

o **Choices –** The choice tool allows asking any question we like as long as it is a multiple choice. Once the choice is set up, students click on the choice and select their answer.

o **Lesson –** Each page in the lesson can have a question at the bottom of the page. The resulting page depends on the answer the student gives.

o **Surveys –** A survey is a set of predetermined questions. The current survey focuses on getting feedback from students about the nature of the course.

o **Quiz Generation –** Moodle offers a flexible quiz builder. Each question is a full featured web page that can include any valid HTMLcode.A question can include text, images, sound file, movie files, and anything you can put on a web page.

Social course material, where students and teachers interact with one another. The social course materials are

o Using the Glossaries – It is possible to maintain a glossary in our course. Adding words and definitions to the

glossary is also possible. Glossary. Allows participants to create and maintain a list of definitions, like a dictionary

o Wiki – Wiki means "quick" in Hawaiian and has become familiar as a common online editing space. This tool could be useful for group contributions to a joint group paper or project in class, or a class-wide creation of a lecture, or a committee production of a policy. Text and images may be added, as well as additional pages for more content.

o Forums – Forums are a powerful communication tool within a moodle course. They are like online message boards where we can post messages to each other while easily keeping track of individual conversations. Forums are the primary tool for online discussion and are the central organizing feature in the social course format.

o Chat – The Moodle chat module is a simple synchronous communication tool allowing us to communicate in real time. In a chat everyone needs to be logged in at the same time in order to communicate.

Moodle also has a broad variety of additional modular features and a relatively quick learning curve. It helps educators easily and effectively develops full online classes, either in advance or as the course is being taught. This versatility allows Moodle to be used in a variety of ways depending on the needs and capabilities of the school or district: from simple classroom management to pure e-learning-or a "blended" combination of the two, with e-learning content and utilities extending on-site classroom learning.

The Potential of Moodle in Teacher Education

People are more likely to teach as they were taught and this principle may be extended to people design educational environments based upon their experiences (and perceptions) of teaching and learning. Student teachers are more likely to adopt the paradigms that reflect their prior knowledge and experience, the manner in which they were taught, and the implicit (or explicit) models of teaching and learning they experienced in their own educational undertakings when they begin to design and develop their own educational environments (Bain & McNaught, 1996).Moodle offers a range of tools for learning purposes.The main ones are

a. Presentation of content in a variety of media

b. Tracking systems to see what learners have done and when

c. Means of communication between learners to share ideas.

The trend toward conversion from traditional classroom follows the shift of learning theories from the behaviorist orientation that portrays learning as a primarily passive activity to theorist orientation that emphasize the active, reflective and social nature of learning (Lewis et al., 2005). Learners are increasingly considered to be active constructors rather than passive recipients of knowledge (Dougiamas, 2003). The student teachers can be given full control of a Moodle environment in order to develop curricula suitable for classes they either do teach or may teach in the future.. Moodle can be used as a content delivery tool and mainly for the the presentation of content in a variety of media. Content development can be coherent and logically sequenced in a way that learners can easily follow the course. A course management system must address the needs of the ultimate end user: the learner (Lewis et al., 2005). That selection needs to be based on both the objectives of the course and the students' needs. Moodle content provides resources for students as they engage in the learning process. Students were required to use the LMS to structure the learning environment using multimedia resources. The student teachers can look at how to upload and create content for their moodle course. Moodle has components that will allow the instructor to create a course that emphasizes active learning experiences. The first thing the teachers have to do when they create a course in Moodle is to add some content, such as a syllabus or a course outline. With the drop-down menu in the centre sections of the course the trainees can add the content to the course. The first tool, "Insert a label," creates a label directly on the course page. The next two tools, "Compose a text page" and "Compose a web page," can be used to develop content directly in Moodle. The following two, "Link to a file or web site" and "Display a directory," are used to manage content developed in other programs, such as Word or PowerPoint. Contents from other web sites can also be added and can take advantage of the rich library of information available on the Web. Finally, "Add an IMS Content Package" enable to add pre-packaged content from sites around the Web. Similarly everything that deals with creating and content managing can be given training.They were also expected to use the editing tools in Moodle to enhance

the design of the Moodle interface, using graphics and colour to clarify and structure the learning activities. Students can selecttheir own contexts for the content designing. Some examples of the ways in which Moodle can be used by the student teachers to support a variety of approaches to learning include: solving problems in mathematics, understanding reflection, refraction and dispersion in the real world, Problem-based learning in nutrition, understandingcontinents etc.

DESCRIPTION OF PEDAGOGIC UTILITY OF MOODLE

Moodle in its concept has a constructivist approach and its design moves in this direction.Pedagogically, for learning to be effective, it must be experienced. The tools within Moodle allow and support this type of learning. Enabling one to post thoughts, discuss and share ideas and resources within a course creating a community of learners where even the teacher can become a participating learner. Today online environments are increasing in popularity and demand collaborative tools to update teaching approaches. Moodle, as a consequence, allows control to be in the hands of the teacher and students, where it should be. It can also be used offline to enhance teaching through content creation that supplements classroom teaching.The student teachers can create content using the open source tool Moodle. Content can be organized in the form of a "Course" in Moodle.

The "course" may consist of the following
• Each course contain five "topics"
• Each topic contain
o two "Resources"
o one "Quiz"
o one "Assignment"
• Regarding the choice of topic:
o Topic can be chosen from any subject in the school curriculum
o The topic should be neither too vast nor too small.
• Regarding the nature of content
o Use the capabilities of a computer in selecting suitable content.
o Use a variety of media – text, video, audio, animation, pictures, etc – limited by the skills and resources available.
o Chose the right way to teach the different fragments of the course with the knowledge of learner behaviour and pedagogy.
o The course should be effective for the intended learner and imposed minimum cognitive load in navigation and such aspects.

Teacher educators and student teachers can engage themselves in discussion forums as well as chats which help in social learning. The forum which is a key communication tool in Moodle works like any bulletin board in that it allows users to post messages and respond to each other's contributions. A single topic discussion forum as well as open forum enables teacher educators as well as student teachers to keep in touch with themselves and to have discussion on various hot topics in education.Social forums, often called 'Virtual Cafes' or 'Common Rooms' can be set up for courses or programme, depending on the teachers need. Such spaces provide a common area for teachers and students to come together and discuss unlimited topics, including social activities and educational ideas. They are supportive spaces for students, most successful for teachers where they would not otherwise have the opportunity to communicate each other. It is arguable that teachers will experience a greater sense of community within, and a sense of belonging to, an educational institution or individual department having had the experience and convenience of the social forum on their course; this could arguably have implications for retention. Similarly each feature of moodle has its impact in teacher education.

The Need for Introducing Moodle in Teacher Education

The real class rooms are now being replaced by smart classrooms as well as virtual class rooms.So in the near future or now itself the role of teachers will be changed. Teachers in this age of digital information and technology not only have to be proficiently knowledgeable in the field that they are teaching, but must also be skilled in the technologies that are being used to convey the educational content. As a result, in the educational arena today, there is a great need for an emerging breed of technologically proficient educators who are using the information and communication technology (ICT) to create a better teaching and learning environment. However, in this context the ability to develop and incorporate multiple media elements in conjunction with interactive features for teaching and learning will modify and enhance the traditional instructional approaches. As a result the role of the teachers may be shifted to multimedia learning tool developers. This will inevitably change the way teachers teach and students learn. The marriage of content and technology not only provides the teacher with a more effective way to transfer knowledge and information to students, but also enables them to learn in a more productive way. Online learning is rapidly becoming a common method of instruction. To prepare students for the future collaborative, global society in business and education, we must use tools that promote collaboration, communication, and critical thinking skills. Moodle addresses these issues and provides a stable, effective, time-tested tool for the future. It is fast gaining popularity as a powerful learning management system for disseminating knowledge and information to the learner. The Moodle software is a very valuable gift to the educational community, moreover for the unemployed who can find opportunities as e-learning teachers.

CONCLUSION

The student teachers is to be equipped with the skills and abilities from time to time to handle the latest technology as the quality and competence of teachers affect instruction and in turn will have a strong impact on student learning. The active reformation of B Ed curriculum with respect to ICT is essential rule which will be conducive to a positive influence and lead to a sustainable course of action in this direction. Thus we should consider the benchmarks, standards, guidelines and reformations necessary for integration of various advantages of LMS in Teacher Education.

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