Role of MOODLE in 21st Century Learning

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ABSTRACT: *Digital world shifts the learning paradigm into our own pace irrespective of time and geographical location. MOODLE is a web-based open access platform that helps to build a course interactively. It includes a wide range of resources in the form of web pages, videos, presentations, quiz, forum, assignments, wikis and discussions. Teacher can't monitor each student personally within the fifty minutes class time and also fulfil the leaners' needs. MOODLE allows the learners to access resources independently whenever they needed. This study will examine the learning strategies and how MOODLE supports interactive deep learning with a set of PG students. MOODLE website is created and grant permission to the students by the teacher. The students felt a newer experience and the results has proved deep understanding of the subject.*

KEYWORDS

e-learning, MOODLE, Self-directive learning, Virtual Learning Environment.

1. INTRODUCTION

Learning environment has restructured from traditional to virtual environment due to the invent of SMAC (Social Media, Mobility, Analytics and Cloud computing). Recently, eLearning is becoming widespread in higher education institutions. Students can interconnect with other students and teachers electronically using digital media such as chat sessions, discussion forums and e-mails. Digital media has enriched the experience of teaching and learning. Massive Open Online Course is a model for delivering course content online to a large number of students who wish to join the course. Without time limit and attendance, you can view the content within the course period. Certificates may be produced for the completion of the course.

MOODLE is the most widely used open-source Learning Management Systems in the 21st century. It delivers numerous functionalities that are supported for interactive and effective learning. MOODLE was initially developed by Martin Dougiamas for helping teachers to create online courses in a nature of interaction and collaboration. The first version of Moodle was released on 20 August 2002. Moodle is a free and open-source learning management system (LMS) written in PHP and distributed under the GNU General Public License. MOODLE is used for blended learning, distance education, flipped classroom and other e-learning projects in schools, universities, workplaces and other sectors.

1.1 CHARACTERISTICS OF MOODLE

The main characteristics of MOOC are:
* Freely open access to public with the help of internet.
* Voluntary massive participation.
* Knowledge should be distributed among the participations through discussion and forum.
* Duration of the course will be 4 weeks, 8 weeks and 12 weeks.
* Up to fifty users can be added as participants at free of cost.
* Content can be downloaded and access in off-line also.
* Learner's activities are tracked by the teachers.
* It acts as user-friendly and easy to customize/manage the structure of the course.
* It provides secure learning environment.

1.2 LIMITATIONS OF MOODLE

The challenges of MOOC are:
* Lack of attendance: Because of no attendance, participants did not give importance to their attendance.

- Poor monitoring: There is no interaction between teacher and students. Because the participants are massive in nature also diverse geographical location.
- Inadequate quality: Without face to face interaction, the course content does not feel innovative and interesting.
- Simple assessments: Students assessments are made with simple knowledge test.
- Absence of standards: There is no standards for evaluating the performance of the participants.

2. LITERATURE STUDY

Brandl (2008) has stated that MOODLE is the best Web-Based LMS based on Socio-Constructivist Pedagogy to meet the growing demand of eLearning system, where teachers, administrators and users work together for learner's community. Harris et al (2013), has defined MOODLE as a Course Management System (CMS) and worldwide commonly used as e-learning platforms.

3. METHODOLOGY

The primary objective of the study encompasses self-motivated learning is achieved through blended and flipped classrooms. The study also focuses on the effective teaching methods. Blended learning is accomplished with the integration of ICT and cloud computing which shifts the learning environment more interactively. MOODLE platform is one of the interfaces to create on-line course simple and effective also helps students outside classroom.

For the study, 1st year PG students are taken as respondents. The syllabus of the subject is divided into three categories. Each category is carried with different learning style like lecturing, seminar and gamification. Lecturing is taken by the teacher. Seminar is taken by the students, after collecting information from the web using e-resources. Gamification the students utilize the Hot photo software and enjoy very much. Finally, survey is conducted with the students by questionnaire method. A web site "https://mtnpgcscloud.moodlecloud.com" is created in the MOODLE platform and collected feedback through the web site. The results are analysed and shown in the following.

Hypothesis:

Now-a-days the Gen Z, shows
- Less interest in reading, writing and active participation like personalized learning.
- Much interest in collaborative work and using e-resources.

The result of the survey questionnaire is tabulated under the table 1. The results also proved that the students show less interest in active participation. They show more interest in collaborative work nature. They also felt that MOODLE and Open Educational Resources help them outside of the classroom.

Learning Strategies	V. good	Good	Normal	Poor	V. poor
1. Producing a heme/project/ Seminar	3	13	1		
2. Listening to the teacher	7	8			
3. Assignment / Presentation	5	6	4	2	
4. Practical work / Role play	5	11	1		
5. Group Work / Discussion	6	4	7		
6. Asking Question / Forum	3	3	10	1	
7. E-resources	8	7	2		
8. Tutorials	1	12	2	2	
9. Gamification	8	4	5		
10. Personalized learning	2	6	7	1	1
Table 1: A Survey report on Learning Strategies					
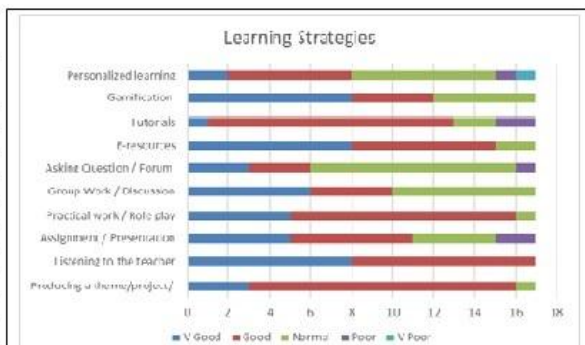
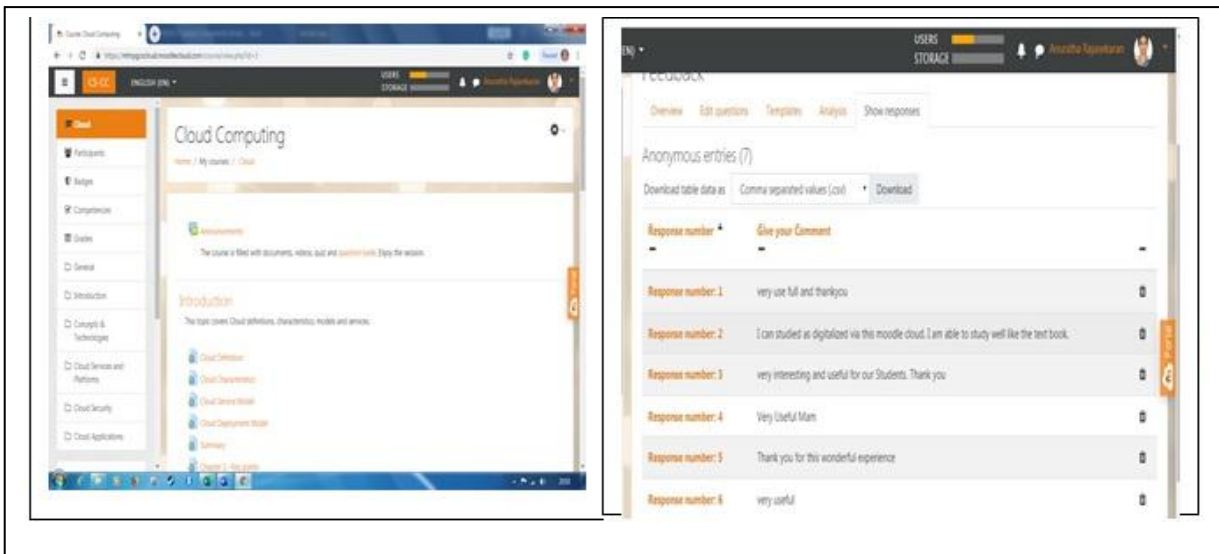**Graph 1: A survey report on Learning Strategies**

Figure 1: Web site and the feedback of the students

In this study, it is proved that interactive learning experience is felt by the students using ICT, OER and MOODLE. Technology is just a tool, offering learning more interactive. Without participation of teacher, it is nothing. It is the only responsibility of the teacher to motivate the active participation of the students by means of interactive presentations.

Some teachers are stressed with the integration of ICT in the classroom. They are not aware of the learning tools and inadequacy of technology literacy. In other situations, the content availability is also limited in the internet. For this, a user-friendly mobile app is created and training should be given to the teacher in the next academic year.

For example, everyday language (both Tamil and English) teachers have to take same topics for many classes. Traditional blackboard teaching allows them to write and rub every time in various classes. But the digital content helps them to engage the all classes without stress. It also gives ideas to enhance the content while seeing.

In the student point of view, they do not have stress to copy down the content while the teacher is writing in the blackboard. All students concentrate in copying the content. Digital content helps them to access 24 X 7 hours. The one can't attend the class can also be beneficial through the digital content. If the content is not in effective manner, that will show negative results also. The teacher plays a vital role in creating the digital content.

4. CONCLUSION

The study is concluded with the following:

- 21st century learning environment comprises critical thinking, creativity, communication, collaboration, multidisciplinary skill, computing technology and career learning.
- The students are practiced to be resilient, reflective and risk taker.
- Teacher should motivate students by praising intelligence.
- Learning in group develops better understanding and decision-making skills to the students.
- Technology can never replace a teacher. Teacher should assist students with the help of technology.
- Virtual learning acts as an efficient instructional model.
- Flipped classroom provides personalized learning.
- The effectiveness of ICT integration in the classroom has to be subjected to the active participations of the students.
- Good learning environment, motivation of teachers, availability of learning tools, technology usages inside and outside campus and the active participation of the student can only achieve the 21st century skills.
- It is mandatory to gain collaborating, communicating, creative and critical skill due to the vast changes in the technology. Also, life skill and career skill also needed to face better employability.

5. ACKNOWLEDGEMENT

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