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ABSTRACT
This research study is aimed to provide opinions of the students learning economics with the help of Edmodo, a learning management system used for collaborative learning. The said research paper provides the views of the students about the effects of Edmodo on their learning to teach economics and availability of Edmodo. The research used a case study, which is one method of descriptive research. In this case students learning economics used Edmodo to share activities they had designed that centered on subject specific concepts taught in economics. There are 379 students participated in the study. The author developed a questionnaire and it included both closed-ended and open-ended questions; the questionnaire was used as the data collection tool. Descriptive and content analysis methods were used to analyze the data obtained from the study. Blended classrooms include face-to-face instruction techniques such as lecture, group discussions, and small-group work while also using technology to provide online learning that students can do at home, provided they have access to necessary technology. The results obtained from the data analysis showed that the students generally had positive views about the use of Edmodo in student education programmes.

KEYWORDS
Edmodo, Collaborative learning, LMS, Blended learning, virtual classroom.
DESCRIPTION OF RESEARCH PAPER (MAIN BODY)

Objective:

The main objective of this paper is to highlight the views and opinions of the students learning the subject ‘Economics’ using ‘Edmodo’ LMS – a source of collaborative mobile learning.

Methodology:

This paper is mainly based on primary data collected by the author. The articles which are published on ‘Edmodo’ have also been studied for the study.

1. Introduction

What is Edmodo?

Edmodo is one of network platform which enables teachers and students to connect, collaborate and share content and educational applications, and assess homework, grades, class discussions and notifications. Its goal is to help educators harness the power of social media to customize the classroom for each and every learner. Realizing the great potentials of this learning style, Edmodo could be an effective solution to be implemented in the classroom in blended learning way (Kodriyah and Hakim, 2015) [1].

The discussion begins with the introduction of Edmodo and the concept of blended learning by using Edmodo. Then it continues with the application of Edmodo into actual teaching context and its outcome.

Edmodo is a free and secure learning platform designed by Jeff O’ Hara and Nick Borg in 2008 for teachers, students, parents, schools, and districts, and is available at http://www.edmodo.com (Kongcham, 2013) [2].

Edmodo is usually known as Facebook for Education. The display looks similar but is much more private and safe because it allows teachers to create and manage accounts and only for their students by typing group code to register in the group; no one else can participate or spy on the group without knowing the group code (Jarc, 2010) [3].

Using the Edmodo

In order to have class at Edmodo, teachers should create account first at http://www.edmodo.com and sign up as a teacher. Students also should create an account as students and parents create an account as parent (Edmodo, 2020) [4].
With the help of Edmodo, teachers can send out quizzes and assignments, give feedback, receive completed assignment, store and share content in the form of both files and links, maintain a class calendar, conduct polls, as well as send notes and text alerts to individual students or to the entire class (Kathiri, 2015) [5].

After finished creating account, teachers’ job then is shaping group for learning and there will “group code” for students to type on if they want to join our classes. Once the online classes are in place and joined by all of the students, they would be locked. Teachers can post materials in the form of note, assignment, quiz, or poll. The teachers can choose note if they want to share some notes with file, link, or other media. Here, teachers also can manage time when the note will be posted by click on the calendar menu. Students can comment at the post, give feedback and discuss with the other students (Kodriyah and Hakim, 2015) [1].

Below is the example of discussion between the researcher and students after the researcher posted the materials about past progressive tense. By having online class at Edmodo, teacher has chance to communicate with their students. Edmodo even strengthened the relationship between students, and led to a stronger classroom community (Mills, 2011) [6] and the relationship between teachers and students.

2. Literature Review

Balasubramanian, Jaykumar & Fukey (2014) [7] used Edmodo in a course with university students and they assessed the reasons for preference for Edmodo using an online five-point Likert questionnaire. Researchers have suggested that teachers should use this application to empower collaboration and communication between students. The difference between Edmodo and other social network sites is that Edmodo is a social learning platform designed for collaboration, communication, the sharing of knowledge, homework and discussion between students, teachers and parents.

Edmodo is a free social learning platform that allows students to access the course content uploaded by their teachers. The platform allows teachers and students to communicate with each other via messages, thus providing learners with the chance to communicate and collaborate in a virtual classroom environment (Ekmekçi, 2016) [8], (Mokhtar, 2016) [9].

Similarly, Enriquez (2014) [10] explored high-school students’ perceptions of the effectiveness of the use of the Edmodo application as a support tool for learning. The results obtained from the analysis of focus group discussions and interviews showed that students thought that Edmodo is an effective tool.
3. Need of the Study

Some studies that have focused on the use of Edmodo in education are included in the literature. Generally, in these studies, the Edmodo application was used by students that study at different education levels and the studies evaluated the factors affecting the use of Edmodo by taking into account students’ views about Edmodo (Ekici, 2017) [11].

The present paper looks at views and opinions expressed by the students using Edmodo for teaching the subject ‘Economics’.

4. Objective of the Study

The study objective is:

- To understand views and opinions of the students about using ‘Edmodo’ - a learning management system, to learn the subject of ‘Economics’, during the COVID 19 period.

5. Data Collection Method

This empirical research is basically based on Primary data collected from students studying in the first, second and third year of the commerce stream (B. Com.). There are 379 respondents have been selected with convenience sampling technique. The sample includes respondents with different gender and age group. The respondents are from Kandivli suburb of Mumbai city. The data has been collected from the selected sample through structured questionnaire consisting suitable questions.

6. Data Analysis

This empirical research is basically based on Primary data collected from students studying in the first, second and third year of the commerce stream (B. Com.). The data so collected has been analyzed with the help of suitable statistical tests. This study also consist the secondary data which is used from conceptual discussion done by other researchers.

Hypotheses for the study are as follows:

Hypothesis 1: Edmodo promotes engagement of students in collaborative learning.
Hypothesis 2: Edmodo contributes positive effect towards student performance.
Hypothesis 3: Edmodo is a teaching method should be employed by teachers.
Hypothesis 4: Edmodo encourages good classroom discussion.
Limitations:
The major limitation of this research is the geographical area confined to Kandivli suburb of Mumbai city. The present study is also based on the responses received from the selected respondents.

ANALYSIS OF SURVEY DATA

Out of the total respondents (n=379), 64% are female and 36% are male respondents.

Age-wise analysis of the respondents (n=379), shows that 97% of the respondents are belonging to age group ‘Upto 20 years’ and 3% of the respondents belonging to age group ‘More than 20 years’.

Class-wise analysis of the respondents (n=379), shows that 24% of the respondents were students of ‘FYBCOM’, 61% of the respondents were students of ‘SYBCOM’ and 14% of the respondents were students of ‘TYBCOM’.

RESPONSE TO SOME QUESTIONS

We have asked the respondents to answer some questions. Responses to these are as shown below (n=379):

<table>
<thead>
<tr>
<th>Q3 Age Group</th>
<th>Response</th>
<th>In Numbers</th>
<th>In %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Upto 20 Years</td>
<td>368</td>
<td>97%</td>
</tr>
<tr>
<td></td>
<td>More than 20 Years</td>
<td>11</td>
<td>3%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>379</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Survey Data

<table>
<thead>
<tr>
<th>Q5 Have you heard of a new method of teaching like LMS / MOOCS?</th>
<th>Response</th>
<th>In Numbers</th>
<th>In %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>211</td>
<td>56%</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>168</td>
<td>44%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>379</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Survey Data

<table>
<thead>
<tr>
<th>Q6 Are you aware of 'Flipped classroom' method of teaching?</th>
<th>Response</th>
<th>In Numbers</th>
<th>In %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>207</td>
<td>55%</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>172</td>
<td>45%</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>379</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Survey Data
Q8 Are you a student enrolled under Edmodo?

<table>
<thead>
<tr>
<th>Response</th>
<th>In Numbers</th>
<th>In %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>368</td>
<td>97%</td>
</tr>
<tr>
<td>No</td>
<td>11</td>
<td>3%</td>
</tr>
<tr>
<td>Total</td>
<td>379</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Survey Data

Q11 Do you enjoy the new method of blended learning with Edmodo?

<table>
<thead>
<tr>
<th>Response</th>
<th>In Numbers</th>
<th>In %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>319</td>
<td>84%</td>
</tr>
<tr>
<td>No</td>
<td>60</td>
<td>16%</td>
</tr>
<tr>
<td>Total</td>
<td>379</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Survey Data

HYPOTHESIS TESTING

For testing these hypotheses, we are using Chi Square Test. The details are as given below.

Hypothesis 1

Edmodo promotes engagement of students in collaborative learning.

It is reworded as below.

Null Hypothesis

Age group of the student and their responses to enjoying the new method of blended learning with Edmodo are independent.

Alternative Hypothesis

Age group of the student and their responses to enjoying the new method of blended learning with Edmodo are dependent.

For testing this hypothesis, we will consider dataset for following two questions:

- Q3 Age Group and
- Q11 Do you enjoy the new method of blended learning with Edmodo?
Data from the Survey

**Association between Q3 (Age Group) and Q11 (Do you enjoy the new method of blended learning with Edmodo?)**

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Q11</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Upto 20 Years</td>
<td>310</td>
<td>58</td>
</tr>
<tr>
<td>More than 20 Years</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>319</td>
<td>60</td>
</tr>
</tbody>
</table>

**Chi-Square Tests**

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square Value</td>
<td>0.0470</td>
<td>1</td>
<td>0.8284</td>
</tr>
<tr>
<td>Critical Value of Chi-Square</td>
<td>3.8415</td>
<td>1</td>
<td>0.05</td>
</tr>
</tbody>
</table>

df = Degrees of Freedom

Above table shows results of the data about age group of respondents and their response to Q11. Results showed that Pearson Chi-square value (Statistics value) for association between them is 0.0470 at df = 1 which is not greater than (i.e. less than) the critical value of chi-square (3.8415) at significant level 0.05 for df= 1. This indicates acceptance of null hypothesis. This means that age group of the student and their responses to enjoying the new method of blended learning with Edmodo are independent.

The null hypothesis stands accepted.

Hence Hypothesis 1 is accepted.
Hypothesis 2
Edmodo contributes positive effect towards student performance.

It is reworded as below.

Null Hypothesis
Age group of the student and their responses to Edmodo contributing positive effect towards student performance are independent.

Alternative Hypothesis
Age group of the student and their responses to Edmodo contributing positive effect towards student performance are dependent.

For testing this hypothesis, we will consider dataset for following two questions:
- Q3 Age Group and
- Q20 Do you enjoy and practice tests, assignments and evaluations given on Edmodo?

Data from the Survey

Association between Q3 (Age Group) and Q20 (Do you enjoy and practice tests, assignments and evaluations given on Edmodo?)

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upto 20 years</td>
<td>18</td>
<td>31</td>
<td>98</td>
<td>178</td>
<td>43</td>
<td>368 (97%)</td>
</tr>
<tr>
<td>More than 20</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>8</td>
<td>1</td>
<td>11 (3%)</td>
</tr>
<tr>
<td>Years</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>18</td>
<td>32</td>
<td>99</td>
<td>186</td>
<td>44</td>
<td>379 (100%)</td>
</tr>
</tbody>
</table>
Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square Value</td>
<td>3.1547</td>
<td>4</td>
<td>0.5322</td>
</tr>
<tr>
<td>Critical Value of Chi-Square</td>
<td>9.4877</td>
<td>4</td>
<td>0.05</td>
</tr>
</tbody>
</table>

df= Degrees of Freedom

Above table shows results of the data about age group of respondents and their response to Q20. Results showed that Pearson Chi-square value (Statistics value) for association between them is 3.1547 at df = 4 which is not greater than (i.e. less than) the critical value of chi-square (9.4877) at significant level 0.05 for df= 4. This indicates acceptance of null hypothesis. This means that age group of the student and their responses to Edmodo contributing positive effect towards student performance are independent.

The null hypothesis stands accepted.

Hence Hypothesis 2 is accepted.

Hypothesis 3
Edmodo is a teaching method should be employed by teachers.

It is reworded as below.

Null Hypothesis
Age group of the student and their responses to Edmodo to be used as a teaching method and should be employed by teachers are independent.

Alternative Hypothesis
Age group of the student and their responses to Edmodo to be used as a teaching method and should be employed by teachers are dependent.

For testing this hypothesis, we will consider dataset for following two questions:

- Q3 Age Group and
- Q22 Is it good to use more teaching methods like Edmodo to make teaching-learning more interesting? Do you enjoy and practice tests, assignments and evaluations given on Edmodo?
Data from the Survey

Association between Q3 (Age Group) and Q22 (Is it good to use more teaching methods like Edmodo to make teaching-learning more interesting?)

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Q22</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strongly Disagree</td>
<td>Disagree</td>
</tr>
<tr>
<td>Upto 20 years</td>
<td>10</td>
<td>27</td>
</tr>
<tr>
<td>More than 20  Years</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
<td>27</td>
</tr>
</tbody>
</table>

Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square Value (Statistics Value)</td>
<td>4.8632</td>
<td>4</td>
<td>0.3016</td>
</tr>
<tr>
<td>Critical Value of Chi-Square</td>
<td>9.4877</td>
<td>4</td>
<td>0.05</td>
</tr>
</tbody>
</table>

df= Degrees of Freedom

Above table shows results of the data about age group of respondents and their response to Q22. Results showed that Pearson Chi-square value (Statistics value) for association between them is 4.8632 at df = 4 which is not greater than (i.e. less than) the critical value of chi-square (9.4877) at significant level 0.05 for df= 4. This indicates acceptance of null hypothesis. This means that age group of the student and their responses to Edmodo to be used as a teaching method and should be employed by teachers are independent.

The null hypothesis stands accepted.

Hence Hypothesis 3 is accepted.
Hypothesis 4
Edmodo encourages good classroom discussion.

It is reworded as below.

Null Hypothesis
Age group of the student and their opinion to Edmodo encouraging good classroom discussion are independent.

Alternative Hypothesis
Age group of the student and their opinion to Edmodo encouraging good classroom discussion are dependent.

For testing this hypothesis, we will consider dataset for following two questions:

- Q3 Age Group and
- Q21 Does Edmodo encourages good classroom discussion?

Data from the Survey

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Q21</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upto 20 years</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td></td>
<td>18</td>
</tr>
<tr>
<td>Disagree</td>
<td>36</td>
<td></td>
</tr>
<tr>
<td>Neutral</td>
<td>107</td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td>174</td>
<td></td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>33</td>
<td>368 (97%)</td>
</tr>
<tr>
<td>More than 20 Years</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Disagree</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Neutral</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Agree</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>0</td>
<td>11 (3%)</td>
</tr>
<tr>
<td>Total</td>
<td>18</td>
<td>379 (100%)</td>
</tr>
</tbody>
</table>

Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Asymp. Sig. (2-sided)</td>
</tr>
<tr>
<td>Pearson Chi-Square Value (Statistics Value)</td>
<td>2.5068</td>
<td>4</td>
<td>0.6434</td>
</tr>
<tr>
<td>Critical Value of Chi-Square</td>
<td>9.4877</td>
<td>4</td>
<td>0.05</td>
</tr>
</tbody>
</table>

df= Degrees of Freedom
Above table shows results of the data about age group of respondents and their response to Q21. Results showed that Pearson Chi-square value (Statistics value) for association between them is 2.5068 at df = 4 which is not greater than (i.e. less than) the critical value of chi-square (9.4877) at significant level 0.05 for df= 4. This indicates acceptance of null hypothesis. This means that age group of the student and and their opinion to Edmodo encouraging good classroom discussion are independent.

The null hypothesis stands accepted.

Hence Hypothesis 4 is accepted.

7. Conclusion

In this study it was found that students are students have heard of a new method of teaching like LMS - Learning Management Systems / MOOCS. It was also observed that students are enrolling themselves under Edmodo. In the time period of COVID 19, the faculty also has found this platform a good source for exchange of study material, for submitting and accepting assignments, evaluations and for interacting with the students.

REFERENCES


