

# The Effectivity Of Using Learning Social Media Edmodo For Remedial Program In The Topic Chemical Nomenclature

Zonalia Fitriza #, Fauzana Gazali\*

Department of Chemistry

Faculty of Mathematics and Natural Science

State University of Padang

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**ABSTRACT:** Remedial program is a follow up of learning evaluation in 2013 curriculum and "KTSP". This program is given to the student who didn't pass the minimum criteria of learning result. Based on the "KTSP" technical guidance evaluation in 2008 and 2009, generally teacher only gave retest to the student who didn't pass the examination, without give any treatment to pass the learning outcome which was fail before. It happened because there wasn't enough time to do this program. Learning Social media which is called as edmodo used to tackle the problem because it is an online media. It can help teacher to hold remedial program wherever and whenever they want. So that, a research was held to the grade X students in the topic chemical nomenclature. This research is experiment with randomize control group only design. It involve two experiment classes which used discussion method and individual learning method respectively. It also involve control class with common method used by the teacher. The result of the test was analyzed by one way ANOVA using SPSS program for hypothesis test. It found that there was a different result of experiment and control classes with  $F_{calculated} > F_{critical}$  that is  $3.711 > 3.63$  with p value 0.047 and an alpha level 0.05.

**KEYWORDS:** edmodo; learning social media; remedial

## 1. INTRODUCTION

There are two curriculums that are used in Indonesia, they are 2013 curriculum dan Kurikulum Tingkat Satuan Pendidikan (KTSP) which is mean curriculum based educational level. Both curriculum require student to achieve minimum criteria of competences. This criteria is a standar in learning evaluation. When student get mark more than minimum criteria, so they are pass the exam but when they get mark below the minimum criteria, they must follow remedial program to learn learning outcomes which are fail. Student will do retest based on learning outcomes which are fail.

Remedial is a program which is must hold in both curriculums because in these curriculums require mastery learning but in fact, not all teachers did this program. Based on the result of "KTSP" technical guidance evaluation in the year 2008 and 2009 by "Direktorat Pembinaan SMA" which is an organization to supervise Senior High School found that generally teacher did retest to the student who are didn't pass examination without any treatment in learning process before.. remedial often not hold because there is no enough time because this program must do out of school time.

In order to tackle this problem, teacher can use edmodo which is learning social media site that can mediate communication between teacher and students in remedial program and enrichment virtually. Edmodo is a learning platform which is free and safe to use that was designed by Jeff O'Hara and Nick Borg in 2008 for teacher, student and parent [2]. Display and how to use edmodo are alike to facebook, so it familiar to Teacher, student and parent when use it. Features available are very support learning especially to remedial and enrichment program because in this site, teacher can supply learning resources to student, discuss and communicate with student via chat. Students also can do the same activities, they can share learning resources and discuss each other. Beside, edmodo provides the features which are can support academic need for evaluation such as quiz, assignment and polling.

Remedial program through edmodo was done by make teacher account first. Teacher made a registration in [www.edmodo.com](http://www.edmodo.com). After they have an account teacher made groups based on class or others. Each group have a code that make this site safe for user because only the people who have code can access the group.

After got the group code, student do registration and input the code, so they can join in the group which is created by teacher. Student can access all learning resource, assignment, quiz, discuss and communicate via edmodo wherever and whenever they want. Using this way, less time as the problem in do remedial can be tackle.

## 2. THEORY

### B. Teaching Learning of Chemistry

Learning is a part of the activity which involves complex and comprehensive thinking processes. Related to this, cognitive theory explains that learning is a process to build and guide students to optimize understanding of a process about an object [4]. Understanding a process about chemistry can be done by many models, strategies, and learning media.

In learning chemistry, models, strategies, and learning media that are used must be suitable to the topic, class condition, and facilities of learning. In this part, teachers play an important role in creating effective and enjoyable learning conditions. Teachers must be able to give them stimulation, motivation, and suitable learning methods with topic and student characteristics [5].

### C. Remedial Program

Generally, a remedial program is a help for students who have difficulties in learning. Based on Appendix IV of the Regulation of the Indonesian Minister of Education and Art No. 81A in 2013 about curriculum implementation, a remedial program consists of two main steps: they are diagnose learning difficulties and then give treatment.

Learning difficulties are diagnosed after evaluation of learning results by learning result analysis, so teachers will know competencies and learning outcomes which are not mastered and then teachers can give suitable treatment that is mentioned as follows:

- 1) *Relearning* with different methods and media if the number of students who follow the remedial program is more than 50%;
- 2) *Individual Learning* if the number of students who follow the remedial program is 20% in maximum;
- 3) *Group assignment* if the number of students who follow the remedial program is more than 20% but less than 50%;
- 4) *Tutorial with friends*

(Appendix IV of the Regulation of the Indonesian Minister of Education and Art No. 81A in 2013 about curriculum implementation)

All of the remedial treatments are held out of school time. A retest is held after the remedial program was held. A retest was done to evaluate student understanding of learning indicators which were not understood before.

### D. Edmodo

Edmodo is a free and safe learning platform which was designed by Jeff O' Hara and Nick Borg in the year 2008 for students, teachers, and parents [2]. The interface of Edmodo is seen as Figure 1 below.

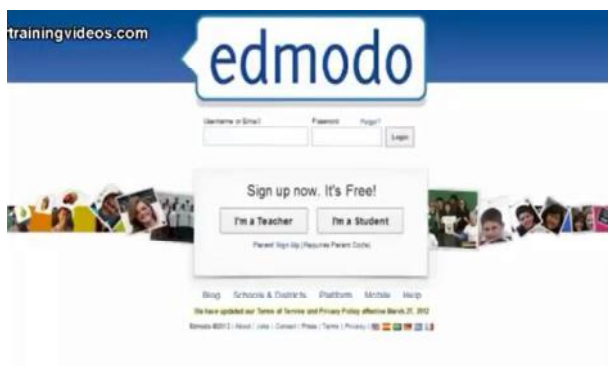


Figure 1. interface edmodo

Edmodo display is alike to Facebook, the purpose is to make users familiar with it because generally students have Facebook accounts and shows that Edmodo is user-friendly. The differences between Edmodo and other social media is it is a learning platform for students, teachers, and parents to collaborate, communicate, share knowledge, access assignments, and mark. This statement is supported by research results which stated that all participants showed positive reasons about assignment features in Edmodo. Besides, polling application and notification/share features are the most popular among participants [1]. Moreover, majority of participants have the same comment about the contribution of Edmodo in learning such as enjoyable learning, capturing student attention, making teacher jobs easier, creating effective and organizing learning, and suitable for the student in the next era [1]. Besides that benefit, activating online collaborative learning atmosphere gave a modern experience which is sharing knowledge and learning resources in different ways [6].

## 3. METHOD

This research is an experiment with an expanded *randomized control group only posttest design* which is shown as follows.

TABLE 1: EXPERIMENT DESIGN

Classes	Pretest	treatment	Posttest
Experiment 1	-	X <sub>1</sub>	T
Experiment 2	-	X <sub>2</sub>	T
Control	-	-	T

Keterangan :

X<sub>1</sub> = remedial dengan metode diskusi

X<sub>2</sub> = remedial dengan pembelajaran individu

T = tes ulang yang diberikan pada ketiga kelas sampel pada akhir penelitian.

This research did to the X grade student SMA 3 Padang who are chosen randomly that is X<sub>1</sub>, X<sub>2</sub> and X<sub>7</sub> classes. There are two variable in this research that are discussion method, individual leading and common remedial methods as independent variable and retest result as dependent variable.

The research instrument is formative test and retest after remedial program held. The instrument is made by some processes, they are compose question design, compose test, test analysis and test revision based on analysis.

Remedial program using learning social media edmodo was held by the steps below

- 1) Coordinate remedial program with the teacher of SMA (Senior High School)
- 2) Design remedial program as follow

School : SMAN 3 Padang  
 Subject : Chemistry  
 Class : X<sub>2</sub>  
 Formative test date : 19 Mei 2016  
 Type of question : Multiple Choice  
 Basic Competence : Apply the IUPAC rules for nomenclature of simple organic and inorganic compound

- Indicators :
1. Mention the compounds formula in everyday life such as water, table salt, sugar, and so on
  2. Explain oxidation number of elements in
  3. Write the name of inorganic compound based on IUPAC
  4. Write chemical formula of inorganic compounds based on IUPAC
  5. Apply nomenclature rules of binary chemical compounds
  6. Apply nomenclature of polyatomic compounds
  7. Explain nomenclature of polyatomic compounds
  8. Apply nomenclature of polyatomic compounds
  9. Write the name of simple organic compounds based on IUPAC
  10. Write chemical formula of simple organic compounds based on IUPAC

Standar mark : 80

No	Student name	Mark of formative test	Indicators which are failed	No of questions which must do
1	siti aisyah			
2	bunga fobria muchtar			
3	ra'ima irki			
4	ridha marisa			
5	vanny natasha			

- 3) Prepare learning resources, assignment and quiz to support remedial program
- 4) Design and compose formative test
- 5) Test and item test Analysis using ANATES Software
- 6) Do formative test
- 7) Analyze formative test by fill the table of remedial design
- 8) Do remedial program through edmodo which is X-2 student using discussion method through edmodo, X-7 student using individual leading using edmodo and X-1 student using com
- 9) Do Retest
- 10) Hypotesis test

Hypotesis tes did using one way ANOVA by SPSS software because data is normal and has homogen variance. The hypotesis test is to determine efectivity of using learning social media edmodo for remedial program. The statistics test have hypotesis as follow

Ho : retest result of the students with remedial program using edmodo are the same with the student who do remedial program commonly

H1 : Retes result of the students who are do remedial program using edmodo are not equal with the students who do remedial commonly

$$H_0 : \mu = \mu_1 = \mu_2$$

$$H_1 : \mu \neq \mu_1 = \mu_2 \text{ OR } \mu = \mu_1 \neq \mu_2$$

Information :

$\mu$  = retest result of the students who are do remedial commonly

$\mu_1$ = retest result of the students who are do remedial using edmodo with discussion method

$\mu_2$ = retest result of the students who are do remedial using edmodo with individual leading

#### 4. RESULT AND DISCUSSION

Based on the result of formative test, found that 19 students didn't pass the test which are 16 students of X2, 2 students of X7 and a student of x1. They have to follow remedial learning which is X2 students with social media of learning edmodo with discussion method, X7 students with individual learning and X1 student with common method use in that class.

After remedial program, the student did retest and the result was analyze using one way ANOVA of SPSS program because data is normal and has homogen variance which are seen as follow

**TABLE 2: RESULT OF NORMALITY TEST**

Tests of Normality <sup>a</sup>						
kelas	Kolmogorov-Smirnov <sup>b</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
hasilbelajar x1 ja 2	.217	16	.043	.891	16	.059

a. Lilliefors Significance Correction

b. hasilbelajar is constant when kelas = x1 ja 7. It has been omitted.

Data of retest is normal because it's significance is higher than 0,05 and the variance is homogen based on Table 3.

**TABLE 3: RESULT OF HOMOGENITY TEST**

#### Test of Homogeneity of Variances

hasilbelajar			
Levene Statistic	df1	df2	Sig.
2.785	1	16	.115

Test homogeneity of variance did using Levene test with significance hagher than 0,05, that is 0,115, so conclude that variace is homogen. Because of data is normal and variance is homogen, hypotesisi test did using one way ANOVA with the result is shown in Tabel 4.

**TABLE 4: HYPOTESIS TEST RESULT**

ANOVA					
hasilbelajar	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	742.105	2	371.053	3.711	.047
With in Groups	1600.000	16	100.000		
Total	2342.105	18			

Based on Table 4 known that  $F_{cal} > F_{crit}$  that is  $3,711 > 3,63$  with signivcance lower than 0,05 that is 0,047. Based on the result, conclude that  $H_0$  is rejected and  $H_1$  is received. It means there is the difference of retest result of student with remedial program using edmodo and using common method. But, the value of  $F_{cal}$  is nearly to  $F_{crit}$ , it means the difference is small because the student do not do remedial test effectively. It happened because they do not really understand about remedial program. They think that remedial is the same to retest, so they tend to assume that retest is the more important process than remedial

#### 5. CONCLUSION

Based on experiment, conclude that

- There is difference of retest result of student who did remedial program using learning socila media edmodo by discussion and individual leading with the retest test result of student who did remedial commonly.
- There is a problem when doing this research that is student do not really understand about remedial program so they have less contribution in remedial program. They think remedial as retest not as a process of relearning

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