

Incorporating WhatsApp to Increase Writing Skills of the Tenth Graders

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ABSTRACT

This study reviews the effect of incorporating WhatsApp to develop self-introduction writing skills of tenth graders. The purpose of this study is to investigate whether there is a positive effect on students' writing skills. This research design used an embedded mixed method design the main research design is a nonrandomized control group, posttest-only design, and supported with descriptive qualitative. This study was implemented on twenty-four students of one public senior high school in Sidoarjo majoring in Science Program. Furthermore, the post-test was used to determine the learning outcome of the experimental and control groups. The test has already been validated. The technique of data analysis applied t-test by the prerequisite normality and homogeneity test. The result of this study shows that (1) there is a positive effect on students' skill in self-introduction by incorporating WA. The Analysis of the t-test is 6.6751 at 0.05 level significance with 22 degrees of freedom is higher than which is 2.074. As the t-test value was higher than the t-table, H_0 was rejected, and the alternative hypothesis (H_a) was accepted. (2) The aspects of writing in the experimental group of four (content, organization, vocabulary, and language use) were "Excellent". But the mechanic aspect obtained "Good". And the aspects of writing in the control group of two (content and organization) were "Excellent". Vocabulary, language use, and mechanics are "Good".

Keywords: *Incorporating WhatsApp, Develop Self-Introduction Writing*

INTRODUCTION

To define, writing is the result of idea construction conveyed onto words (Coulmas, 2003). The ultimate purpose of this process is for a writer to present a point of view. Moreover, in strengthening the point of view, the writer derives it into reasoning that is supported by details and written into parts or paragraphs. Aware by this complex construction, it is not surprising to find students facing some challenges in writing. Based on Alfaki's study (2015), there are four aspects that students do mistakes mostly. Grammatical, sentence structure, word choice and cognitive (punctuation, capitalization, spelling, content, and organization). Those aspect derives into five categorizes that are content, organization, vocabulary, language use and mechanic (Jacob *et al*, 1981; Kusumaningrum, 2015) in this study. These are very challenging to students to have a good writing.

In discussing the challenges in writing, Bilal *et al* & Imran (2013; 2011), through his research, explained that the major problem for students in writing is in producing correct grammatical sentences and in constructing coherent link between ideas in their text. Bilal *et al* & Imran (2013; 2011) continues explaining that the cause of this problem is the approach of teaching and learning that teachers applied in teaching writing. Bilal *et al* & Imran (2013; 2011) described the method as the 'traditional approach' where teachers guided students focusing on their grammatical errors so that students became non-active learners and teachers then dominate the talking time (TTT).

In another study, Abdullah (2013) observed the methodology that teachers use in teaching writing. He explained that the method used was Grammar Translation Method (GTM). Abdullah (2013) continues that GTM is an inappropriate method in teaching writing as it was originally developed for the study of conversing 'dead' language through the use of its classical literature. In other words, GTM lacks the application of authentic materials, and so does for teaching writing. In the teaching writing, teacher and students will focus on the final project which is good without any mistakes and authentic material relies on students to learn, copy, transform the model. This idea of the study is also accepted in Indonesia as the recent study also foreign language.

Another weakness of GTM as a method uses in teaching and learning writing, is that this method does not provide students to learn the gist and grammar. Somehow, students only focus on the structure for every sentence and less attention in the content and coherent. Moreover, according to Bilal *et al* (2013), 66% of students who learned writing through GTM method still face problems in writing especially in the elements of grammar and word choice. Bilal *et al* (2013) continues, that only 11% of the students who participated in his research passed the writing exam. From the data that have been explained, one can say that GTM is an inappropriate method in teaching writing as it does not help solving students' grammatical, coherence, and word choice problems which are some of the major challenges for students.

Another two challenges for students in writing are word choices and mechanic. As a good writing should consist of appropriate and varied range of vocabularies used along with proper grammar and varied range of sentence structures (Norish, 1983; Alfaki, 2015). According to Reid and Alfaki (1983 & 2015) when they practice the choice of vocabulary in English lesson that would reflect a purpose of the study by students should be sensible to their reader. However, the problem they would not apply well as translating or connecting second or foreign language. In the other problem, mechanic also become one of the major problem. Here mechanic of writing consist of punctuation, capitalization, and spelling. According Byrne (1988), the fact that punctuation has never been standard to the extent as spelling, it makes problematic. As well as capitalization, the rules of capitalization are not universal and classifying system which has become inconsistent that is complex for students (Gower *et al*, 1995).

The use of inappropriate methodology and rules of writing is not the only problems that are detected in teaching and learning writing. Another major problem is the time limit for each writing class. Writing class at school lasts for 25-30 minutes long. The normal time allocation for writing especially self-introduction is only 45-90 minutes (Depdiknas, 2014). This duration is then divided into preparation and explanation time (usually takes about 30 minutes), the individual or students are supervised by the teacher (usually takes 10 minutes). Therefore, there is around 30 minutes available for students to write in the class. It is usually not enough for students and it becomes more difficult since the government expects a student-centered teaching where time allocation supposed to be spent for students.

In relation to the issue of student-centered learning, it is stated in the core competence (KI) of K13 that teachers should prioritize students' need and provide guidance. Although this approach seems to be better than the teacher-centered approach, teachers often face difficulties in providing guidance for new students. Often, in the first meeting, where the goal is for students to introduce themselves and to get to know each other, new students tend to be shy and therefore, keep silent. This is indeed a challenge because the introduction lesson, not only being the simplest lesson, but also one of the most important lessons for students in the real world where they will find opportunities to use this skill in the future.

In line with the problem of time limitation, student-teacher ratio in the classroom also adds more complication. Based on The Organization for Economic Cooperation and Development (OECD) (2011) data, there are usually more than 35 students in an Indonesian classroom compare to only one teacher. It is contradicted with the Education Commission (2014) rule which states that there should be 1 teacher for every 15 students (1:15) or 1 teacher for every 30 students (1:30). This issue is not surprising considering the demographic population of Indonesia; however, the unbalanced ratio between teacher and students in a class shall not be neglected as it adds the complexity of the teaching and learning writing. As student center, teaching writing with the big ratio faces difficulties, however to supervise each student should take for about 5-10 minutes.

On the other hand, hiring for more teachers, adding more classroom and taking longer time allocation to provide a more effective writing class do not seem to be possible. Therefore, another solution to overcome the problem needs to be available. Writing class needs to be unlimited and mobile. Considering those two elements, technology, such as gadget and internet connection, seems to be promising as a solution. Gadget and internet connection can help both students and teachers. Related to both in teaching writing, social media is the most possible bridge.

Social media becomes popular for the most common issue. However, the most features on the social media provide user to communicate through writing. This may give great chance for students in learning writing. Moreover, Ibrahim (2013) continued in his research that a social media in teaching leaning proses affects significant changing for students' writing. In line with social media, Mobile Assisted Language Learning (MALL) reports that mobile instruction supports high school students' motivation to learn English (Danesh and Mehdi, 2015). The result that the WA users would prefer dialogue by focusing on the idea (telusinternational.com). This support it by group chatting. The different group chatting with Facebook, WA could focus on the point that be responded if the user talks more than one topic. This application can be media for learning writing out of class as those are accessible to smartphone.

There are many kinds of available social media in the smartphone. Recently, there are three common social media (WhatsApp, Blackberry Messenger, Line) that are widely used among undergraduate students (Lenhart *et al*, 2007). Moreover, those have strengths and weaknesses, but the common one that students prefer was WhatsApp (WA). Comparing with others, WA will not take much data, no need high speed frequents of signal, many features (group chatting (big group with maximal 256 members, small group with minimum 2 members, and personal group) that can command more than one topic discussion (direct reply)), star notification, direct forward and copy, no spam, automatically synchronizing with all contact in the gadget, etc. That's why, many students prefer using this application.

Starting booming in 2010, WA has become a popular instant massaging applicable for various devices and gadgets by more than 350 million users in 2013 (Susanti & Ali, 2016; Cohavi 2013). This happens because WA provides better features that are messenger to text and to call, video call, and voice note (Susanti & Ali, 2016). Those applications may be used to support and serve teacher and students to run teaching-learning process in writing. Moreover, those application may relate to student-centered by giving big space of practicing for students.

Based on the recent issue of social media that WA has most possible effective media, researcher initiates to use it in teaching learning process. Researcher plans to do the study at SMAN 1 Sidoarjo. Because, this school is in central area of Sidoarjo and most of the students bring smart phone. They have been familiar with, but it is not used for learning English. This will be possible effective learning media for them to enhance their writing.

METHOD

This study applied mixed method research design. Based on Creswell and Plano (2011 & 2010), a mixed-methods are a procedure for collecting, analyzing, and “mixing” both quantitative and qualitative methods in a single study or a series of studies to understand a research problem. Based on the Ary *et al* (2010), mixed methods research is combination between quantitative and qualitative research methods in different ways, with each approach adding something to the understanding of the phenomenon. Based on the both explanations, mixed method research design is procedure collecting, analyzing and mixing both quantitative and qualitative toward the understanding of the phenomenon. Relating the phenomenon, Ary *et al* (2010) divided mixed method into six kinds that are concurrent triangulation, parallel design, sequential design, fully mixed design, conversion design, and embedded design.

TABLE 3.1 NONRANDOMIZED CONTROL GROUP,
POSTTEST-ONLY DESIGN

Select Control Group	No Treatment	Posttest
Select Experimental Group	Experimental Treatment	Posttest

(Adopted from Creswell, 2012)

In this study, researcher used embedded design that one form of data supports a second form of data within a single study (Ary *et al*, 2010). However, the main research design is nonrandomized control group, posttest-only design and supported with descriptive qualitative. This study purposes to investigate whether there is positive effect on students’ writing skill in self-introduction by incorporating WhatsApp to tenth grade students of SMAN 1 Sidoarjo. Thus, the experiment group will incorporate WA in the learning process, but the control group will run the usual learning.

In this research, it will involve two variables which are independent variable and dependent variable. The manipulated variable is called the independent variable. The independent variable of this study is incorporating WA. The observed and measured variable is called the dependent variable (Ary *et al*, 2010). The dependent variable of this study is students’ writing skill in self-introduction.

Ary *et al* (2010) told in his book that population is those people about whom you wish to learn something. The population of this study is students of SMAN 1 Sidoarjo which are assessed. The researcher chooses tenth grade instead of eleventh or twelfth grade. Based on the basic competence of K-13 (Depdiknas, 2014), self-introduction writing was taught in tenth grader. However, self-introduction writing is the variable of this study. Thus, it may be the researcher’s consideration to choose the subject.

The sample of this study is tenth graders who are new students. Relating the dependent and independent variable of this study, the researcher selected the population to be some samples as the following scheme (figure 3.2). Those sample were taken from SMAN 1 Sidoarjo. After the researcher asked the English teacher, he suggested to take sample from both groups which were 10th grade students majoring on Science Program (MIA). As the number of the class have 36 students, the researcher divided by three, then the result was twelve ($Sample = \frac{36\ students}{3} = 12\ students$).

Related to number of samples, according to Sudijono (2014), small sample was under 30 participants. Sugiono (2015), added that small experimental sample range between ten and twenty. In this study, the researcher chooses twelve sample. As the researcher has the preliminary data, it shows that twelve samples consist of three student obtained score above 70 and nine below 70. However, 70 score was the minimum standard score. From the data, the researcher divided to three groups that are big group, small group and personal discussion. In the small groups' discussion, there consists of two students in a group. Moreover, all students may have discussion in a big group.

This study employs mixed method which the main design was experimental research and elaborated by descriptive qualitative. The experimental aims to investigate whether there is positive effect on students' writing skill in self-introduction by incorporating WhatsApp to the tenth-graders of SMAN 1 Sidoarjo. Furthermore, it was elaborated on specific aspect of writing. Those two points would be implemented through two stages of pre-research and implemented stage. The pre-stage was focus on the preparation of teaching-learning process and the implemented stage was on taking data.

The writing test is given in preliminary-test and post-test. In preliminary-test, the students are asked to write down on self-introduction in a group consist of two. Teacher used product approach for teaching experimental and control group after preliminary-test. Next, the experimental group will incorporate with WhatsApp. After treatment, the students are asked to write down the self-introduction. The scripts were assessed by the teacher based on Jacobs' *et al* (1981) and Kusumaningrum's (2015) scoring rubric.

FINDINGS AND DISCUSSION

The preliminary-test is given at the first meeting to experimental (MIA 6) and control (MIA 7) group. It is conducted to see the students' capability in writing. In this stage, the students introduce themselves in a group consist of two by chatting. The chatting is analyzed to be the preliminary-test data. The experimental group consist of 34 students and the control group consist of 35 students. In the experiment group, there were two students obtained score below 60 and 26 students obtained score between 60 and 69. The rest is above 71. In the control group, there were 27 students obtained score between 60 and 69, and the rest obtained score between 70-79.

TABLE 1 WHOLE DATA OF PRELIMINARY SCORES

Scores	Number of students	
	Experimental Group	Control Group
>61	2	-
60-69	26	22
70-79	6	12
>80	-	2
Mean	66.44	67.78

After getting the preliminary-test result, the data will be selected to determine the research sample. The researcher selected it from the data to obtain twelve sample from experimental and control group. The purpose of this stage is for getting the closed mean score of both experimental and control groups that consist of twelve samples. Both experimental and control groups, there are 18 and 6 students who obtained 60-69 and 70-79.

TABLE 2 THE SAMPLING RESULT

Experimental group			Control group		
No	Name	Preliminary- (X_i)	No	Name	Preliminary- (Y_i)
1	Student E 1	69	1	Student C 1	62
2	Student E 2	62	2	Student C 2	63
3	Student E 3	62	3	Student C 3	63
4	Student E 4	72	4	Student C 4	74
5	Student E 5	61	5	Student C 5	63
6	Student E 6	69	6	Student C 6	70
7	Student E 7	61	7	Student C 7	70
8	Student E 8	65	8	Student C 8	66
9	Student E 9	67	9	Student C 9	67
10	Student E 10	71	10	Student C 10	66
11	Student E 11	65	11	Student C 11	62
12	Student E 12	74	12	Student C 12	62
Sum		798	Sum		788
Mean		66.5	Mean		65.67

Those two-data show that the averages were similar (see table 4.2). To decide the sample, the researcher not only based on the score but also the condition of the students who had mobile phone and support it with WhatsApp. In the class, the teacher taught writing by using product approach for both experimental and control groups. The researcher shows the example of self-introduction text. Then the students observe, question, and discuss the text. In order to convince the students' understanding the teacher led to brainstorm the idea of self-introduction text. However, the experimental and control groups had different package in exploring idea. In the control group, the teacher only led to brainstorm the text in the first day, and the elaboration would be individual student's work. But the experimental group, they would elaborate each partial idea in brainstorming through WhatsApp every day with the teacher's guidance.

Relating to the problem in chapter one that most of students and teacher got problem in time allocation, thus the teacher facilitated the discussion of experimental group after the school time. As they have couple discussion, they would discuss the partial idea through conversation based on their personal experiences. The partial idea is the theme discussion of WA group discussion. In the end of the day, the researcher gave evaluation to all group. There are three group discussions those are personal, small, and big group discussion. To enhance the students' motivation, the researcher gave positive feedback firstly before give some notes.

TABLE 3 POST TEST AND MEAN RESULT

Experimental group			Control group		
No	Name	Average R1 & R2	No	Name	Average R1 & R2
1	Student E 1	92.5	1	Student C 1	70.5
2	Student E 2	92	2	Student C 2	79
3	Student E 3	92	3	Student C 3	68
4	Student E 4	87	4	Student C 4	78
5	Student E 5	78.5	5	Student C 5	77
6	Student E 6	93.5	6	Student C 6	81
7	Student E 7	84	7	Student C 7	82
8	Student E 8	83	8	Student C 8	73.5
9	Student E 9	91.5	9	Student C 9	73.5
10	Student E 10	88	10	Student C 10	81.5
11	Student E 11	88.5	11	Student C 11	74
12	Student E 12	93.5	12	Student C 12	75
Mean		88.667	Mean		76.083

In the end of six days the researcher gives post-test for experimental and control group. To observe and score the groups objectively, the researcher included one more teacher. Then, the researcher merged both result data. Normal distribution test is used whether to know the data of experimental and control group has normal distribution or not. Toward the test, the researcher used SPSS 15 version which the obtained data was examined by. Here, the researcher used One Sample Kolmogorov-Sminrnov as the calculation method. However, Kolmogorov-Sminrnov may be used for $_{small}N$ and $_{big}N$ (statistikian.com). Based on Sudijono (2014) $_{small}N$ is ≤ 30 and $_{big}N$ is ≥ 30 . The result is as the following table:

If the result of the calculation of X test is lower than X table; null hypothesis (H_0) was rejected. But if the result of X test was higher than X table; null hypothesis was accepted. Based on the table 4.4, the X test value of control and experimental group were 0.401 and 0.772 at 0.05 significance with 12 samples. Each result was lower than X table 1.6449. Meaning, the H_0 was rejected, and the experimental and control group data were normal. This may continue to homogeneity test as the prerequisite test before calculating t-test.

Homogeneity test in this study use analysis of variance (ANOVA) which is the procedure to calculate the average comparison between control and experimental group. Thus, the researcher uses SPSS 15 version. The following table is the result.

TABLE 5 TEST OF HOMOGENEITY OF VARIANCE

Self-introduction writing

Levene Statistic	df1	df2	Sig.
.028	1	22	.869

As stated in the hypothesis of homogeneity, if F test value is lower than F table value, the H_0 is rejected. But if the F test value is higher than the F table value, the H_0 is accepted. Based on the table 4.5, the F test value is 0.869 at the probability 0.05, first and second degree of freedom 1 and 22. The result of F test value is lower than the F table value 4.30095. Meaning, the H_0 was rejected, and the proved data showed the sample data was homogenous.

After calculating the normality and the homogeneity test, the researcher continued to calculate the t-test. But to calculate t-test, the researcher should examine the data result to obtain the difference. The post-test data were divided by the number students (12) to get average. To get the different data, the researcher calculates each student data were minus by the students' average data. Then the researcher used the following formula to get the different data.

$$D = (\forall x | x = X_2 - \overline{X_2})$$

D = Different

$\forall x$ = Each student score of post test

X_2 = Post test

$\overline{X_2}$ = Average of post test

The result of difference as the following table that x and y were experimental and control groups.

TABLE 6 THE DIFFERENCE SCORE BETWEEN MEAN AND EACH SCORE OF EXPERIMENTAL AND CONTROL GROUP

Experimental Group				Control Group			
No	Name	X	X ²	No	Name	Y	Y ²
1	Student E 1	3.83	14.69	1	Student C 1	-5.58	31.17
2	Student E 2	3.33	11.11	2	Student C 2	2.92	8.51
3	Student E 3	3.33	11.11	3	Student C 3	-8.08	65.33
4	Student E 4	-1.67	2.78	4	Student C 4	1.92	3.67
5	Student E 5	-10.17	103.37	5	Student C 5	0.92	0.84
6	Student E 6	4.83	23.36	6	Student C 6	4.92	24.18
7	Student E 7	-4.67	21.78	7	Student C 7	5.92	35.01
8	Student E 8	-5.67	32.11	8	Student C 8	-2.58	6.67
9	Student E 9	2.83	8.03	9	Student C 9	-2.58	6.67
10	Student E 10	-0.67	0.44	10	Student C 10	5.42	29.34
11	Student E 11	-0.17	0.03	11	Student C 11	-2.08	4.34
12	Student E 12	4.83	23.36	12	Student C 12	-1.08	1.17
Sum		252.167		Sum		216.917	

Based on the result above, there are differences between group which were incorporated WA and product approach method only. It can be said in the other word that the incorporating WA technique was better than the conventional technique in enhancing writing skill. After obtaining the mean data from the experimental and the control group, the researcher examined whether incorporating WA improve students' writing skill or not through t-test. Somehow, the calculation was used to test the hypothesis of this research. To calculate t-test, the researcher used the following formula (Sugiono, 2015).

Table 7 Independent Sample Test

	Levene's Test for Equality of Variances		t-test for Equality of Means							
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
								Lower	Upper	
VAR00002	Equal variances assumed	.028	.869	6.675	22	.000	12.58333	1.88512	8.67384	16.49282
	Equal variances not assumed			6.675	21.876	.000	12.58333	1.88512	8.67256	16.49410

According to Sudijono (2014) if the result of calculation t-test is higher than t-table; the null hypothesis (H₀) is rejected. But, if the result of calculation t-test is lower than t-table; H₀ was accepted. Based on the table 4.5, the t-test value 6.675 at 0,05 levels significance with 22 degree of freedom (df) was higher than t-table 2.074. As the t-test value was higher than t-table, H₀ was rejected, and alternative hypothesis (H_a) was accepted. It meant that there was positive effect on students' skill in self-introduction by incorporating WA.

Based on result in the hypothesis that H_0 was rejected. However, the experimental group got higher result than the control group that t value and t -table was $6.6751 > 2,074$ by the possibility success 95%. But the result of organization and mechanic, most of students of control was similar. It made the variant better than the experimental group. Based on table 4.9, S^y of the organization and mechanic were 0.884 and 0.188. In the other hand, S^x of organization and mechanic were 1.25 and 0.506. Meaning, the distribution data of organization of control group was better which was between 15 and 17 (the range was 2) than the experimental group was between 16.5 and 19.5 (the range was 3). The mechanic distribution data of control group was between 2.5 and 4 (1.5) and the experimental group was between 2 and 4.5 (the range was 2.5). The big range data of experimental group of content aspect was impacted by the lowest score within two samples got 16.5. The other aspect was from mechanic data that one sample got 2.5.

Based on the researcher interview and observation the samples personally, there were students' responses weather inside or outside of learning. The inside of learning was in the writing process and result. Those related to the content and mechanic of writing. The outside of learning was two that were inside student and outside student. The inside of the student was low motivation. The outside of the student was the poor internet connection and the burden home-work.

CONCLUSION

Based on Hidayah's study, If $t_{test} > t_{table}$: the alternative hypothesis (H_a) is accepted and null hypothesis (H_0) is rejected. It means there is positive effect upon incorporating WhatsApp to develop writing skill of tenth graders. Furether the t_{test} result, t_{test} value (6.675) was higher than t_{table} (2.074). Meaning, H_a was accepted and H_0 was rejected. This result has answered the research question that the incorporating WA bring positive effect on students' writing skill in self-introduction.

The five aspects of writing in experimental was better than control group. However, incorporating WhatsApp has the highest effect on vocabulary development. It has range in percent and variant 16.16% and -3.199 between experimental and control. But the other two aspects (organization and mechanic) did not bring quite an effect on because the distribution data was not quite good. Furthermore, the range between experimental and control group of organization and mechanic were 0.366 and 0.318.

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