Using Smartphone-Integrated Model of Teaching to Overcome Students' Speaking Anxiety in Learning English as a Foreign Language

Karmila Machmud[1], Ridwan Abdulah[2]

ABSTRACT

The goal of this research is to investigate the effect of a model of teaching that integrating the use of Smartphone towards the learning achievement of both high and low anxiety students. We found it hard to ask students to speak English during the teaching and learning process. This is caused by their anxiety and also the limitation of time allotment provided to teach speaking skill in schools. The use of Smartphone in teaching speaking is suggested to minimize students' anxiety from a peer pressure, as well as to overcome the limitation of the time allotment in teaching speaking. Using quasi experimental method, the data of this research was collected from 63 middle school students using questionnaire of foreign language anxiety classroom scale. This questionnaire is used to classify the students into the group of high anxiety and low anxiety students. Oral test for speaking ability is used to measure the students' learning achievement. Factorial design 2 x2 using ANOVA is utilized to analyze the data of this research. The result has shown that both high and low anxiety groups of students achieve higher score when they are taught by using Smartphone compare to their score when they are taught by using conventional model of teaching. This means that the use of Smartphone integrated model of teaching can overcome the students' anxiety in speaking English.

Keywords: Mobile Phone Application, Mobile Technology, Smartphone-Integrated Model of Teaching, Students' Anxiety.
This is an open access article under Creative Commons Attribution 4.0 License.

1. Introduction

The four main language skills cannot stand alone in the process of learning a foreign language. They are completing each other. It is almost impossible for a person to be able to write without reading

---

[1] Universitas Negeri Gorontalo, Indonesia. Email: karmila36@gmail.com
[2] 2SMP Negeri 5 Anggrek Gorontalo Utara. Email: ridwan_ponelo@yahoo.co.id

first; or have a great speaking skill without having an adequate listening skill. In the case of teaching and learning language, especially in English as Foreign Language instructions, teachers should have an adequate level of mastery of those four skills in order to be able to teach those four skills to their students.

One problem that often appears in EFL instructions in Indonesian Schools, especially teaching speaking skill, is the limited time allocation for English subject, which is only 80 minutes per meeting. In only 80 minutes, teachers must be able to use it to teach 4 language skills at once. This is not enough time if it should include the practice, because the class size is large, which usually consist of 30 to 40 students in one class. With the limited time provided for each meeting makes it almost impossible to cover all students to do the practice. In such a short length of time students are pushed to practice speaking in front of the class with a very limited time to prepare. This results in the difficulties to control their anxiety.

Anxiety is another problem that often occurs in the process of teaching and learning English as a foreign language, especially in the teaching and learning speaking subject. Brown, O'Leary & Barlow (2001) argue that the anxiety and worry are associated with three (or more) of the following six symptoms (with at least some symptoms present for more days than not for the past 6 months). They are; restlessness or feeling keyed up or on edge, being easily fatigued, difficulty concentrating or mind going blank, irritability, muscle tension and sleep disturbance (difficulty falling or staying asleep, or restless unsatisfying sleep).

Thus, there are two major problems in teaching and learning speaking English as a Foreign Language: the limited time allocation for teaching writing and the students' anxiety. In this research, we are going to investigate whether the integration of technology in teaching speaking can be a solution to both problems.

Studies in the field of technology have suggested that the use of technology can enhance the teaching and learning process, especially in teaching English as a Foreign Language (Kessler, 2007; Machmud, 2017; Machmud, 2011). In this research, we are using one of technology tools. The ICT tools are including computers, radio, television, Smartphone and some other devices, and among the ICT tools that is mostly owned and widely used is Smartphone. Mtega, Bernard, Msungu, and Sanare (2012 p. 119) defines "Smartphone have a potential of improving the teaching and learning processes as the tools are cheap compared to other ICTs which can be used for teaching and learning". Smartphones became one of the tools that can be used in teaching process because most of the students use smartphone in their daily live. The report from the statistic portal shows the total number of smartphone users worldwide from 2013 to 2019. It shows that there is a significant increase of the smartphone users from only 4.05 billion in 2013 to 4.77 billion in 2017, and it is predicted that the number will climb to 5.07 billion users in 2019 (Statista, 2017).

Based on the arguments above, we have decided to investigate whether the use of Smartphone that being integrated in the teaching and learning speaking subject can overcome students' anxiety, and whether the it can overcome the problem of limited time allocation for teaching speaking. If both problems can be solved with the use of Smartphone, it is expected that the students' learning achievement in speaking English can be increased.

2. Literature review

2.1 Anxiety in speaking English

Speaking is to say something (word) to someone or to be able to talk in particular language. Spoken words are words those are produced by the movement of the lips and other elements that involve in producing the words itself and when people produce words by saying it, they have done speaking activity.

Burns & Joyce as cited in Torky (2006, p. 31) state that speaking is defined as an interactive process of constructing meaning that involves producing, receiving and processing information. Its form and meaning are dependent on the context in which it occurs, the participants, and the purposes of speaking.

Anxiety is a normal condition or healthy response to a stressful of difficult event in our life. Everyone have experiences in anxiety, the anxiety sometimes comes when we want to present something in from the audience or in front of the class. It is normal because everyone experiences it at times.

According to Brown, O'Leary & Barlow (2001 p. 155) that there some Diagnostic Criteria for Generalized Anxiety Disorder they are:

The first is excessive anxiety and worry (apprehensive expectation), occurring more days than not for at least 6 months, about a number of events or activities (such as work or school performance).

The second is the person finds it difficult to control the worry.

The third is the anxiety and worry are associated with three (or more) of the following six symptoms; restlessness or feeling keyed up or on edge, being easily fatigued, difficulty concentrating or mind going blank, irritability, muscle tension, and sleep disturbance (difficulty falling or staying asleep, or restless unsatisfying sleep).

The fourth is the focus of the anxiety and worry is not confined to features of an Axis I disorder, e.g., the anxiety or worry is not about having a panic attack (as in Panic Disorder), being embarrassed in public (as in Social Phobia), being contaminated (as in Obsessive–Compulsive Disorder), being away from home or close relatives (as in Separation Anxiety Disorder), gaining weight (as in Anorexia Nervosa), having multiple physical complaints (as in Somatization Disorder), or having a serious illness (as in Hypochondriasis), and the anxiety and worry do not occur exclusively during Posttraumatic Stress Disorder.

The fifth is anxiety, worry, or physical symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

The last is disturbance is not due to the direct physiological effects of a substance (e.g., a drug of abuse, a medication) or a general medical condition (e.g., hyperthyroidism) and does not occur exclusively during a mood disorder, psychotic disorder, or a pervasive developmental disorder.

On the contrary, Bailey as cited in Brown (2000) defines that anxiety in second language learning was the key to success. From the explanation above we can conclude that sometimes anxiety hindered someone to progress but it also motivated someone to study hard.

2.2   Smartphone as one of technology tools

Smartphone or known as mobile phone now became a principal need. Everyone wants to own it. Banks & Burge (2004, p. 2) state that Smartphone technology is developing at an extraordinarily rapid pace and is being applied to an increasingly wide range of human activities and the environment in which we live. It brings both benefits and challenges.

Smartphone is a mobile phone that can do many tasks; it can be connected to the Internet. Smartphone comes with many features. People can send email; browse the Internet, chat, video chat, and other important daily tasks. There are many kind of mobile device manufactured they are; RIM, Samsung, Blackberry, BenQ, Palm, Sanyo, Sony Ericsson, LG, Apple, Nokia, Sharp, Motorola, Fujitsu, Kyocera, Oppo, and many more.

The kind of mobile devise above some of that own by the students. There are some types of learning through Smartphones: learning through sound, learning through short text messages, learning through a graphical display, learning through information obtained from data, learning through internet search and learning through camera and video clips (Sevari, 2012).

Most Smartphone can also record video. Children and young people use their Smartphone to record, watch and exchange video (Buchegger. 2010), and video also is useful for teaching and learning process. Yassaei (2012) define that use videos into lessons creates enticing visuals and a special interactive environment in the EFL/ESL classroom. Teaching English through videos also allows teachers to be creative when designing language lessons. Harmer (2004 p. 282) there are some reason why use video in teaching and learning process, they are:

Seeing language-in-use: one of the main advantages of video is that students not only hear the language, they see it too. Video help among the students and the teacher to see/watch more than one time what they are studying.

Cross-culture awareness: video uniquely allows students a look at situations far beyond their classrooms. This is especially useful if they want to see, for example, typical British 'body language'

when inviting someone out, or how American speaks to waiters. Video is also of great value in giving students a chance to see such things as what kinds of food people eat in other countries, and what they wear.

The power of creation: When students use video cameras themselves they are given potential to create something memorable and enjoyable. The camera operators and directors suddenly have considerable power. The task of video - making can provoke genuinely creative and communicative uses of the language, with students finding, them 'doing new things in English.

Motivation: for all of the reasons so far mentioned, most students show an increased level of interest when they have a chance to see language in use as well as hear it, and when this is coupled with interesting tasks.

Voice recorder is creative multimedia software with built in recording and audio playback. It allows you to record sound from a microphone, the line-in jack, or music played by another player in WMA or WAV formats.

Use the voice recorder feature as a means of collecting audio evidence or feedback on work. Voice recorder could be used for other purposes too such as: interview, recording instructions, podcast style notes and keywords for revision.

2.3   The conventional teaching

Conventional teaching method is known as a traditional teaching method wherein teacher is the source of information and the students is the receiver of information or message. Teacher being the main actor in teaching and learning process. They have responsibility to hold a good teaching. They regard the students listens to the teachers' explanations and examples, so the students understand how use the knowledge. Conventional teaching methods based on "traditional view of education, where teachers serve as the source of knowledge while learners serve a passive receivers" (Kuzu as cited in Boumava, 2010, p. 11).

According to Damodharan and Rengarajan (as ited in Ibrahim, 2015) there are some limitations of traditional teaching or conventional teaching they are:
- Teaching in classroom using chalk and talk is "one way flow" of information.
- Teachers often continuously talk for an hour without knowing students response and feedback.
- The material presented is only based on lecturer notes and textbooks.
- Teaching and learning are concentrated on "plug and play" method rather than practical aspects.
- The handwriting of the lecturer decides the fate of the subject.
- There is insufficient interaction with students in classroom.
- More emphasis has been given on theory without any practical and real life time situations.
- Learning from memorization but not understanding.
- Marks rather than result oriented.

2.4   Using smartphone in teaching English

Smartphones are not just for making calls or sending text messages. In recent years, the mobile one's pockets has become a multifunctional device. Many children and young use their mobiles to take picture and videos, to listen to music, to play games and to record their activity.

Many schools forbid mobiles because of the disturbance they cause. Nowadays the Smartphone is much more than a phone, in technical and also in social terms.

For school-age young people the Smartphone is an important part of everyday life and of growing up in general.

Buchegger (2010) gives some suggestions for actively and creatively using Smartphone in class. The suggestion encompasses various subjects and areas in which utilize this technology imaginatively. The examples for using the Smartphone as a means of creative learning in class as follow: mobile photo story, the mobile video story, the mobile podcast, mobile application, mobile GPS, mobile interfaces, the SMS language, SMS passage, everyday geometrical forms, Documenting a field trip, the mobile record story, QR Codes, Digital flickerbook and SMS poetry.

Buchegger (2010, p. 33) also explain how the teaching procedure using mobile video story, they are: firstly the class is divided into small groups which choose a school-related topic for their video story (e.g. a current event in the class). Secondly, all the necessary elements of the film are then decided (location, equipment, actors, etc). Thirdly, role and tasks allocated and a script prepared. Fourthly, scenes are then filmed and edited using mobile video function. Fifthly, the groups then present and discuss the results in the class, and lastly are depending on their content; videos can be uploaded to the school website.

3.   Methodology

The method of this study is experiment method. Fraenkel and Wallen (1993,p.241) stated that it is the only type of study that directly attempts to influences a particular variable, and it is the only type that can really test hypotheses about cause and effect relationship. Based on the explanation, experimental research is the best way to establish cause and effect relationship between variables. The objective of this research is to know the effect of the independent variable, "Smartphone application" and the attribute variable, "students' anxiety (high anxiety and low anxiety) toward the dependent variable, "students' learning achievement in speaking English".

This study conducted at the eighth grade students of a middle school in Gorontalo. Using questionnaire of foreign language anxiety classroom scale to determine the level of students' anxiety, we are able to take the sample of 20 students that categorized as high anxiety group students, and 20 students as the low anxiety group students. Each groups then divided into two groups; one of the groups are treated with the Smartphone-integrated model of teaching while the other group are treated with conventional teaching that is not integrated the use of Smartphone.

In conducting this study, we used quasi experiment. The problem to investigate in this study is whether the use of Smartphone can increase students' learning achievement and can overcome the students' anxiety in speaking English. The design of this study is 2 x 2 factorial designs. The independent variable is Smartphones –integrated model of teaching (A_1) and conventional teaching (A_2). While the attribute variable is anxiety involve high anxiety (B_1) and low anxiety (B_2).

4.   Findings and Discussion

Hypotheses testing in this study are using analysis of variant (ANOVA) factorial 2x2, but before conducting the hypotheses tests the analysis requirement testing which involved normality test and homogeneity test are conducted.

4.1   Normality data

The result of calculation and significant testing of normality index in all groups is presenting below:

Table 1: The result of data normality test

No	The Group of Data	N	Lo	Lt(α = 0.05)	Explanation
1	A_1	20	0.0776	0.190	Normal
2	A_2	20	0.1289	0.190	Normal
3	B_1	20	0.1078	0.190	Normal
4	B_2	20	0.1103	0.190	Normal
5	A_1B_1	10	0.1192	0.258	Normal
6	A_1B_2	10	0.1025	0.258	Normal
7	A_2B_1	10	0.1974	0.258	Normal
8	A_2B_2	10	0.1413	0.258	Normal

Note:
A_1 : The group of students who were taught by using Smartphone application.
A_2 : The group of students who were by conventional teaching.
B_1 : The group of students' who have high speaking anxiety.
B_2 : The group of students' who have low speaking anxiety.
$A_1 B_1$: The group of high speaking anxiety students taught by using Smartphone application.
$A_1 B_2$: The group of low speaking anxiety students taught by using Smartphone application.

A2B1   : The group of high speaking anxiety students taught by using conventional teaching.
A2B2   : The group of low speaking anxiety students taught by using conventional teaching.

4.2   Data homogeneity test

In this study the homogeneity variant testing was done. The tables below show the summary of the test.

Table 2: The summary of homogeneity variants testing of students' in two experimental groups.

Group	Varians (S^2)	Fo	Ft(α=0.05)	Note
A1	9.3263			
A2	5.6711	1.6445	2.15	Homogeny

Table 2 shows the summary of homogeneity variant test in two experimental groups. Those groups are the group which are taught by using Smartphone and the group which are taught by using conventional teaching. The result of the test shows that the data is homogeny.

Table 3: The summary of homogeneity variants testing in two attributes

Group	Varians (S^2)	Fo	Ft(α=0.05)	Note
B1	7.2000			
B2	8.9763	1.2467	2.15	Homogeny

Table 3 above shows the summary of homogeneity variant tests of two attributes groups. The group of high anxiety students, and the group of low anxiety students. The result of the test shows that the data is homogeny

Table 4: The summary of homogeneity variants testing in 4 treatment groups

Experiment	Varians (S^2)	The combination of variants	B	X^2_{count}	$X^2_{(0.01)}$	Note
A1B1	8.5444					Homogeny
A2B1	6.1000					Homogeny
A1B2	8.4556	0.8592	30.9302	0.5687	7.81	Homogeny
A2B2	5.8222					Homogeny

Table 4 shows the summary of homogeneity variant test of 4 groups which are given treatment during the research process. Those groups are high anxiety students who are taught with Smartphone; high anxiety students who are taught with conventional teaching; Low anxiety students who are taught with Smartphone; and low anxiety students who are taught with conventional teaching. The results of the test show that the data are homogeny.

4.3   The testing of statistical hypotheses

Statistical hypotheses in this study were tested by using analysis of variants (ANOVA) continued with Tuckey test. The following table shows the summary of the ANNOVA.

Table 5: The summary of ANOVA

Source of variant	Jk	dk	Rk	F_o	$F_t(0,05)$	$F_t(0,01)$
Column	38.0250	1	38.0250	5.2589	4.11	7.39
Row	15.6250	1	15.6250	2.1610	4.11	7.39
Interaction	9.0250	1	9.0250	5.2482	4.11	7.39
Inside	260.3000	36	7.2306			
Total (T)	322.9750	39	69.9056			

Note: Significant level α= 0.05

There are four hypotheses tested in this research. From the table above, the result of analysis of variants can be explained below:

The testing of the first hypothesis

The statistical hypothesis can be described as follow:

$H_0 = \mu A_1 = \mu A_2$

$H_1 = \mu A_1 > \mu A_2$

The result of analysis variant inter column is $F_0 = 5.2589 > F_t = 4.11$ in the significant level of $\alpha = 0.05$. It means that H_0, which is 'there is no differences on the students learning achievement in speaking English who were taught by using Smartphone application and by conventional teaching', was rejected. This means that H_1 is received; thus, it can be stated that there are differences on students' learning achievement in speaking English who were taught by Smartphone application and by conventional teaching.

The mean score $(\bar{X})$ of students' learning achievement in speaking English who were taught by Smartphone application (A1) is 14.20, which is higher than the mean score of $(\bar{X})$ of students' learning achievement in speaking English who were taught by conventional teaching (A2), which is only 12,10. This means that the students' learning achievement in speaking English who were taught by Smartphone application is higher than the students who were taught by conventional teaching.

The testing of the second hypothesis

The test of first hypothesis has shown that there is a difference in the learning achievement of students taught with Smartphone and students who are taught with conventional teaching. The next hypothesis to test is whether there is an interaction between the use of Smartphone with the students' anxiety in speaking English.

$H_0 = \text{Interaction A} * B = 0$

$H_1 = \text{Interaction A} * B \neq 0$

The result of analysis variant of interaction columns and rows is $F_0 = 5.2482 > F_t = 4.11$ in significant level $\alpha = 0.05$, this means that H_0 which is stated as 'there is no interaction between the use of Smartphone and students' anxiety level in speaking English, is rejected. So that, $H_1 =$ 'there is interaction between teaching by using Smartphone and students' anxiety level towards on students' speaking English', is received. This means that there is an interaction between the use of Smartphone with the students' anxiety in speaking English.

The third and fourth hypotheses are tested using Tuckey test. The following table shows the results of ANOVA using Tuckey test.

Table 6: The result of ANOVA by using Tuckey test.

The comparison group	Q_0	Dk_1/dk_2	$Q_t(\alpha = 0.05)$
A_1B_1 dengan A_2B_1	3.058	2/10	2.95
A_1B_2 dengan A_2B_2	3.528	2/10	

The table above shows the results of ANOVA by using Tuckey test. The complete explanations of the results of the third and fourth hypotheses are elaborated at the following sections.

The testing of the third hypothesis

The statistical hypothesis can be describe as follow:

$H_0 = \mu A_1B_1 = \mu A_2B_1$

$H_1 = \mu A_1B_1 > \mu A_2B_1$

The result of Tuckey test on students' with high anxiety shows that the model of teaching by integrating the use of Smartphone application results in positive effect on students' speaking English. It can be seen on the group of A1B1 and A2B1, $Q_0 = 3.058 > Q_t = 2.95$ at the significant level of $\alpha = 0.05$. Beside that the mean score $(\bar{X})$ of students' learning achievement in speaking English score group A1B1 was 14.70 which is higher than group A2B1, which is only 12.30.

The results above shows that the high-anxiety students' learning achievement in speaking English who were taught by using Smartphone application is higher than the high-anxiety students' learning achievement in speaking English who were taught by using conventional teaching on high anxiety.

The testing of fourth hypothesis

The statistical hypothesis can be describe as follow:

$H_0 = \mu A_1 B_2 = \mu A_2 B_2$

$H_1 = \mu A_1 B_2 > \mu A_2 B_2$

The result of Tuckey test on students with low anxiety shows that the model of teaching by using Smartphone has a positive contribution for students' learning achievement in speaking English than the model of teaching by conventional teaching. It can be seen on the group of A1B2 and A2B2, Q_0 = 3.528 > Q_t = 2.95 at the significant level α= 0.05.

The results also shows that the mean $(\bar{X})$ of students' anxiety in speaking English score of group A_1B_2 is 15.30, which is higher than group A_2B_2, which is only 12.30. Thus, the low-anxiety students' learning achievement in speaking English who are taught by using Smartphone application is higher than the low-anxiety students' speaking ability who were taught by conventional teaching.

The result of the test on four hypotheses in this research using ANOVA factorial design 2 x 2 and Tuckey test can be seen in following table:

Table 7: The conclusion of ANOVA factorial design 2 x 2 and Tuckey test

Technique	Techniques (A)		
Students' Anxiety (B)	Smartphone Application (A1)		Conventional Teaching (A2)	Total ($\sum$)
High Anxiety (B1)	(A1B1)	$>$	(A2B1)	
Low Anxiety (B2)	(A1B2)	$\geq$	(A2B2)	
Total ($\sum$)	(A1)	$>$	(B2)	

5. Discussion

The discussion part of this article discusses the findings of this research, which consists of the differences of learning achievement of the students' who are taught by using Smartphone and the students who are taught by using conventional teaching.

5.1 The students' learning achievement

The results on the findings sections have shown that there is a difference of the learning achievement of the group of students who are treated by using Smartphone-integrated model of teaching and those who are taught by using conventional teaching. Further, the group of students who are taught by using Smartphone-integrated model of teaching reaches higher score compare to the other group. This can be achieved due to several contributing factors, such as the feeling of escaping from a peer pressure in the classroom, the extra time used to practice outside of the classroom schedule, the easy access to use Smartphone, and the easiness to save and submit feedback of the students' performance.

During the treatment process, the experiment group has shown that they enjoy the process of teaching and learning by using the Smartphone-integrated model of teaching. If in the control group, which are taught by using conventional teaching, students are imposed to practice speaking in front of the class, in experiment class students are asked to practice and records their performance using their Smartphone. They can stay in class during the practice, or spread outside the class to do the speaking practice, then using the video recording they record the performance and submit it to the teacher. They can re-record their performance until they reach what they considered perfect for submission.

Using Smartphone application especially video and voice recorder in teaching speaking benefits both teacher and students. Teacher can use the time scheduled to strengthen the students' mastery of the teaching materials, then the practice can be done by giving the opportunity for the students to practice using their Smartphone anytime and anywhere they feel content. This means that the problem of time limitation in teaching speaking can be overcome compare to using conventional teaching. Then

for the students, they can escape from peer pressure that used to avoid them from performing/speaking during the classroom session. Recording their performance using video camera on their own Smartphone gave them freedom to practice at their own pace and convenient. Harmer (2004) stated that when students use video cameras themselves they are given potential to create something memorable and enjoyable. Therefore, with this way of teaching, students enjoy the subject more, reduce their anxiety, and reach higher learning achievement as proved in this research.

The implementation of a model of teaching by concerning on the students' anxiety level can affect students' speaking skill. By using Smartphone-integrated model of teaching in English teaching and learning process, especially in teaching speaking is stimulating the students to perform their competence to communicate their idea.

Yassaei (2012) define that use videos into lessons creates enticing visuals and a special interactive environment in the EFL/ESL classroom. Teaching English using videos also allows teachers to be creative when designing language lessons, which are in turn, can motivate the students to also more creative.

5.2   Smartphone-integrated model of teaching vs. conventional teaching

The finding of this research have shown that students tend to achieve higher score when they are taught using mobile-phone integrated model of teaching compare to students who are taught with conventional teaching. The following figure shows the interaction between the model of teaching, both Smartphone-integrated model of teaching and conventional teaching, and the students' learning achievement after the treatment process.

The above figure shows that when the group of high anxiety students are treated with the use of Smartphone-integrated model of teaching (A1B1), they are achieving higher score compare to the score of the same group but treated with conventional teaching (A2B1). The figure also shows that even the students with low anxiety tend to score low when they are taught with the use of conventional teaching compare to when they are taught by using Smartphone-integrated model of teaching where they score higher.

During the treatment process, the students who are taught by using Smartphone-integrated model of teaching, both high and low anxiety groups of students, shows

Figure 1: Figure 1: The interaction between model of teaching and speaking ability

enjoyment and good motivation, while the students who are taught by using conventional teaching tend to show less motivation to the process, and when asked to practice speaking, they tend to panic, sweating, trembling, and shaking. The students who were taught by using Smartphone application enjoy the process and have more fun than the students' who were taught by using conventional teaching. The students who were taught by using conventional teaching tend to show unconcerned to the material. They were panic, sweating, trembling and shaking their body.

Dixon (2011 p. 8-9) stated that there are five main types of anxiety disorder, one of them is panic disorder: The focus here is on attacks of panic that appear to come on for no reason ('out of the blue'). This involves heartbeat chest pain, sweating, trembling and shaking, many people fear that they are having a heart attack or stroke, dying or going mad. Bailey in Brown (2000) defines that anxiety in second language learning was the key to success. Anxiety causes many potential problems to the students who learn foreign language, but it does not mean that it cannot be reduced. The students' anxiety can be reduced by using a suitable method in teaching and learning process. The use of Smartphone in teaching and learning process is aimed to overcome the students' anxiety in a conventional teaching, and the results of this research have suggested that the use of Smartphone-integrated model of teaching has a positive impact to the high anxiety students, because the result shows that they score higher than when using conventional teaching to teach them.
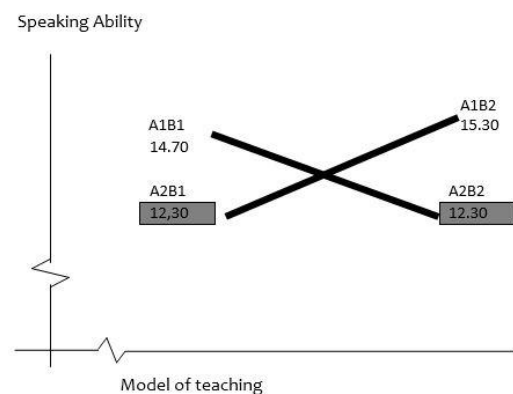
6.   Conclusion and Implications

6.1   Conclusion

This research aims to investigate whether the use of Smartphone in teaching and learning English can overcome the students' anxiety and increase their learning achievement in speaking English. The findings and discussion section of this paper presents the results of this research, and from those results some conclusions can be drawn as follow:

First, the use of Smartphone in teaching and learning process contributes a positive impact to the increasing of learning achievement in speaking English. Students tend to achieve higher score when they are taught with the use of Smartphone integrated model of teaching.

Second, students tend to suffer from speaking anxiety when they are taught with conventional teaching. The symptoms of anxiety disorder have been shown by these students during the teaching and learning process, especially when asked to present or to speak in from of the class; however, the symptoms were not shown when they are taught by using Smartphone-integrated model of teaching.

Third, there is difference of the score in speaking English of students who have high anxiety which is taught by Smartphone application and conventional teaching. The learning achievement of the students with high anxiety in speaking English who are taught by using Smartphone application on high anxiety is higher than the students' anxiety in speaking English who were taught by conventional teaching.

Third, both high anxiety group and low anxiety group of students score higher in speaking English when they are taught with the use of Smartphone compare to when the same groups are taught with conventional teaching. This means that using Smartphone in learning English is effectively reduced students' speaking anxiety.

Fourth, when the students speaking anxiety can be reduced the students would likely to achieve high score in speaking English, compare to when their speaking anxiety is not being addressed and reduced.

To sum up, the integration of Smartphone in teaching and learning English can effectively overcome the students' speaking anxiety, and this makes them achieve high score in speaking English as a Foreign Language.

6.2   Implication

This study has emphasized that the use of Smartphone benefits the teaching and learning English as a foreign language as it can reduce the students' speaking anxiety. However, the use of Smartphone in teaching and learning process has not gained a sufficient attention from EFL teachers.

Most schools in Indonesia, especially in Gorontalo, forbid the use of Smartphone in classroom and even in schools' environment. The fear of the students get distracted during the class, and get the access to browse forbidden content from the Internet are the major reasons behind the policy of banning the use of Smartphone in schools. However, if teachers know how to effectively integrate the use of Smartphone in their teaching and learning process, those fears could be erased. Using Smartphone requires teachers to be more creative and innovative in designing the lesson plan. It should appropriately insert the use of Smartphone in certain activities during the teaching and learning process. To integrate the use of Smartphone in the EFL instruction, teacher should first acknowledge the students' characteristics. This could inform the teachers about the students' level of anxiety. Because overcoming students' speaking anxiety is important in increasing their learning achievement and in motivating them to learn English.

It is about the time for schools' administration in Indonesia, especially in Gorontalo, to consider the change of school policy regarding the use of Smartphone in Schools, because the integration of technology in 21st century teaching and learning process is undeniable and is growing fast. Thus, teachers who are not using technology in their teaching and learning process will be considered obsolete by their students, and the fast growing number of the Smartphone users in Indonesia and in the world is an indicator for teachers to start using it in their teaching, especially in teaching and learning English as a foreign language.

References

Banks, K. and Burge, R. (2004). *Mobile Phones: An appropriate tool for conservation and development.* Cambridge: Fauna & Flora International, UK.

Boumova, V. (2008). *Traditional vs. modern teaching methods: Advantages and disadvantages of each.* Master's Diploma Thesis. Retrieved from https://is.muni.cz/th/86952/ff_m_b1/MgrDiplomkaBoumova.pdf

Brown, H. D. (2000) *Principles of language learning and teaching.* San Fransisco: Longman.

Brown, T., O'Leary, T.A., (2001). Generalized anxiety disorder in Barlow, D. H. (ed). *Clinical handbook of psychological disorders, third edition: A step-by-step treatment manual.* New York: Guilford Publications.

Buchegger, B. (2010). *Using the mobile phone in school: Handling opportunities and risks appropriately.* Margaretenstraise, Austrian Institute for Applied Telecommunication (OIAT). Retrieved from https://www.saferinternet.at/uploads/tx_simaterials/Using_the_mobile_phone_in_school.pdf

Dixon, T (2011) *Understanding anxiety problem.* Retrieved from http://www.help-for.com/anxiety ebook.pdf

Fraenkel. R. J., Wallen. F. N. (1993) *How to design and evaluate research in education.* Boston: Mcgraw-Hill, Inc.

Harmer J. (2004) *The practice of English language teaching.* Cambridge: Longman

Ibrahim, L (2015) *The influence of side by side application on students anxiety level towards students' speaking ability.* Master's Thesis. Gorontalo: Universitas Negeri Gorontalo.

Kessler, G. (2007). Formal and informal CALL preparation and teacher attitude toward technology. *Computer Assisted Language Learning, 20*(2), 173–188.

Machmud, K. (2017). Technology-Integrated ESP (English for Specific Purposes) instructions: The engineering students' perspectives. *The Asian EFL Journal,* March 2017, *8*(1), 67-72.

_____. (2011). *The Integration of technology in a Decentralized Curriculum Setting: The Case of English as Foreign Language (EFL) Instruction in Gorontalo, Indonesia.* Electronic Thesis or Dissertation. Retrieved 15 June 2014 from https://etd.ohiolink.edu/)

Mtega, P. W., Bernard, R., Msungu, A. & Sanare, R. (2012). *Using Mobile Phones for Teaching and Learning Purposes in Higher Learning Institutions: the Case of Sokoine University of Agriculture in Tanzania.* Morogoro – Tanzania: Sokoine University.

Sevari, K. (2012). The role of mobile phones in education and instruction of classroom materials. *Advances in Education,* 1(1), 19-22.

Statista. (2017). Number of mobile phone users worldwide from 2013 to 2019 (in billions). Retrieved from https://www.statista.com/statistics/274774/forecast-of-mobile-phone-users-worldwide/

Torky F. (2006) *The effectiveness of a task- based instruction program in developing the English language speaking skills of secondary stage students.* A Master's Thesis: Ain Shams University.

Yassaei, S. (2012) Using original video and sound effects to teach English. *English Teaching Forum:* United Kindom. Retrieved from http://files.eric.ed.gov/fulltext/EJ971236.pdf