Using Twitter to Enhance Secondaryschool Student's Vocabularyachievement

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### ABSTRAK

**Abstract:** This paper examined the effectiveness of Twitter to enhance the students’ vocabulary achievement, because vocabulary is considered to have an important role in increasing students’ academic achievement and skills. It employed a quasi-experimental design and involved 64 students which divided into control and experimental group. The findings of the research discovered that both of group increased their achievement; however the students in experimental group get higher score than control group. The students in the control group were categorized as students with “good” achievement, while the students in the experimental were students with “very good” achievement.

**Abstrak:** Artikel ini mengkaji efektivitas Twitter untuk meningkatkan prestasi kosakata siswa, karena kosakata dianggap memiliki peran penting dalam meningkatkan prestasi akademik dan keterampilan siswa. Metode yang digunakan adalah metode eksperimen dan melibatkan 64 siswa yang dibagi menjadi kelompok kontrol dan eksperimen. Hasil penelitian menemukan bahwa kedua kelompok mengalami peningkatan prestasi; namun siswa pada kelompok eksperimen mendapatkan skor rata-rata yang lebih tinggi daripada kelompok kontrol. Siswa pada kelompok kontrol dikategorikan sebagai siswa dengan prestasi “baik”, sedangkan siswa pada eksperimen adalah siswa dengan prestasi “sangat baik”.

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The students of English as a Foreign Language (EFL) like the Indonesian students are expected to be able to understand and apply the target language fluently in written and spoken form by ignoring their level of competence. However, most of the students in Indonesia are categorized as students with low level of achievements. This problem also occurred in some other countries such as Turkey (Bozkurt et al., 2016), the Kingdom of Saudi Arabia (Alqunayeer, 2016) and Spain (Rosell-Aguilar, 2018). Most of researchers found out, their low level of achievement is due to their limitation in vocabulary. Moreover, in University of Politécnica de València, Spain, students are faced problem to develop their skill in English. It is difficult for them to use specific vocabularies especially English vocabularies in their field. This problem became the main obstacles that make them have low achievement (Abd et al., 2015). As the problems from those countries, it is believed that the low achievement of the EFL students is mainly due to the students’ vocabulary size. (Kabilan, 2019) assumed in their research that students who lack of vocabulary knowledge tend to struggle in their studying for academic purposes a lot more and have low achievement than students who have a considerable amount of vocabulary.

Vocabulary has the main role in increasing students’ academic achievement and skills, (Rahimi & Allahyari, 2019). According to (Tabar & Khodareza, 2012) generally a vocabulary is defined as a single unit or lexical phrases that convey one single meaning. There are various purposes of the students in order to master vocabulary especially the meaning of vocabulary, its written form, the spoken form, word parts, collocations and its register (Nation, 2001). (Waring, 2002) also defined that vocabulary comprises both the ability to recognize the meaning of the word and the ability in producing it. All the discussions in previous research have proven that vocabulary is crucial for EFL students. However, in learning and teaching process, the researchers also found out that it becomes the major problem for the students as they have limited vocabulary.

Recently, there have been many practitioners who held studies and research to overcome problems about vocabulary faced by the students. The result indicated that media used by the teacher make them hard to understand the material taught in the class. (Astatia, 2019) found out that one of the weaknesses of teacher is deciding the appropriate materials, deciding interesting strategy and the teaching media which made the students’ interest in learning vocabulary is very low. The old-fashioned media in teaching vocabulary is considered as boring by the students. It forces the teacher to be creative in developing and utilizing the latest media for undergraduate students. As each teacher has different creation in using media, they are allowed to develop or
utilize any kinds of the media that suit both the context and cognitive levels of the students (Mthethwa, 2018) One of options for teacher to deal with this problem is building a fun class for students especially university students who are easy to get bored. The teacher can utilize social networking as popular media nowadays to attract the students.

Social networking sites or SNS has gained popularity among students and it is believed can be one of media to teach young and adults who nowadays use new technologies to create instant communities of practice (Manuel Castells, 2007). International research now claimed that the in recent years, the teachers have started to utilize online platforms that improve students’ competence by giving them with bigger social community and authentic materials. It is justified by (Malik et al., 2019) as they reviewed scientific studies from 2007—2017 and found out that social media has been on the rise. They assumed that the internet and social media have big impact for the students and by utilizing the social networking; there will be big opportunities for the students to develop the exposure and memory of the vocabulary. There are many kinds of social networking utilized in educational such as Facebook, Instagram, and Twitter. They are all commonly used to develop students’ skills and competences especially Twitter.

Twitter as social media used for sharing information by using word or sentences that are limited to 140 characters and it can include web pages, videos, images or blogs (Maclean et al., 2013). Twitter has been well known since it was launched in 2006 and has been known across the world (Alhabash & Ma, 2017). In 2016 Hatem and Lomicka found out that in 2015 the users of twitter had grown to 350 million of active users. Twitter does not only gain popularity in culture, but also in education. Twitter is one of social networking that is chosen by most teachers and researchers because it gives the students more space and time to understand information (Malik et al., 2019). This situation can make students feel free to ask about unclear things, discuss topics and give feedback to their friends. The teacher can give students specific topics that lead the students to identify vocabulary related to the topics. The students can complete the topics with an interesting media such as images, links to clips, and written debate in expressing.

Additionally, from the background of the study, it is known that Twitter nowadays is popular in many fields especially in language education as media to help education problem. In language education there have been many discussions of the use of Twitter to enhance students’ writing. One of the researchers was research of (Antenos-Conforti, 2001). He reported in his research if Twitter may have big impact to the university students in enhancing their writing accuracy in terms of grammar and vocabulary. The latest research by (Luo et al., 2019) found out that Twitter was effective in improving students understanding in content and their interaction with others. They added that Twitter could be one of learning tool for improving students’ competence such as their vocabulary, grammar or how they are developing a content. From the following research, it can be concluded that there have been many researchers believe that not only less intimidating and easier, learning writing in twitter also help the students to develop their vocabulary. Their developments are both in their variation of the vocabulary used and the size of the vocabulary.

Twitter is useful media to enhance students’ vocabulary size and it is also known that Twitter is an asynchronous community. Twitter can facilitate the students in learning via the web and allow users to interact with each other by asking questions, sharing information, and posting personal updates. The foundation of asynchronous learning environment is based on social interaction so that the peers encourage one another to generate more efficient language communication. Twitter facilitates the students to discuss and comment on other people’s tweet. As in this research the students are given assignment to post tweet based on specific topic and correct other students’ tweet, it makes big possibility to make the students learn new vocabulary not only from their own tweet but also their friend’s tweet. It is believed that it will significantly increase their vocabulary size.

Twitter as media can help the teacher enhance students’ skills both in productive and receptive skill. Research conducted by Johnson 2015 proved that twitter can help his students in communication and increase their English in the class. Moreover, the research by (Erzad & Suciati, 2018) also found out that English students of IAIN Kudus also use online media such as Facebook, Twitter, Instagram and others to improve their productive and receptive skill. In 2019, Alshalan from Imam University concluded that his students got great improvements especially in their vocabulary acquisition. Twitter also changes the students’ attitudes and increases their motivation. In his study he suggested the educators to utilize Twitter for their language teaching as it is important to involve recent technology in the courses to enhance the EFL teaching methods and media. The latest research in 2020 conducted by Faiza that was concerning to K-pop fans. Through the interview she was revealed a fact that by writing and reading tweet, the K-pop fans improve their English as they realized English and Korean are their bridge to connect them with their idols.

From those studies, it can be concluded that Twitter is useful for students or non-students. The features given by Twitter give easy to the users to share or get information from the world. Even some of the researchers (Hatem & Lomicka, (2016); Erzad & Suciati, (2018); Alshalan, (2019) suggested to use Twitter as one of option of social media to help the educators developing students’ vocabulary. Even though, twitter just allow the students to post 14 words but there are also many activities that can be conducted by the teacher such as sharing information or short video, describing a photo, and many more. These activities can support students in learning vocabularies. Moreover, the students also can give comment on each other tweet and with the activities mentioned students can enhance their vocabulary size and variation of their vocabulary. The vocabularies will be useful for the students. Vocabulary is their basic knowledge to develop a text or passage. Twitter as one of social media and
modern technology can be one of media to be used to overcome the students’ problem related to the lack of vocabularies. It can be utilized to develop students’ vocabulary to improve the students’ low achievement. Thus, this research is raising a topic on discovering the effectiveness of twitter to enhance the students’ vocabulary achievement.

**METHOD**

This study employed quasi-experimental design and focused on knowing the effectiveness of Twitter as a mediator the secondary students and how it affects them in their writing. According to (Lathief, 2014) quasi experimental design is conducted because it is not possible to randomly take the sample so the researcher takes two classes of all existing classes. The study design was a design adapted from (Trianasari, 2017) called non-equivalent control groups or non-randomize control group. The treatment divided into two. For the control class, students were taught using the usual strategy and media used in the classroom. However, the experimental class got the treatment during the learning process. The treatment was the application of Twitter as the media in learning vocabulary. This treatment was aimed to know the effectiveness of Twitter as media to the students of second grade of Man 1 Kediri.

The participants of the study were students of X Science 1 and 2 classes. They consist of 74 students and divided into experiment and control groups. The X Science 1 (X IPA 1) class was the experimental group which consisted of 32 students. The students were thought using media Twitter during 5 meetings of treatment. Moreover, X Science 2 class (X IPA 2) with the same number of students was the control group. The students in this class were thought using conventional media or usual media used by the teacher during online learning such as WhatsApp Group and PPT. There are two main instruments used in this research to collect the data. To answer the first research questions, the main instrument used were post and pre-test. The pre and post-test was focused on the vocabulary related to narrative texts covering, fairy tales, legends, and myth. The validity and reliability also conducted to make sure the test is appropriate for the students. According to the result of the try out, it was found out that the coefficient correlation of the first and second tryout was .817, that mean the pre and post-test of this research consider having high level of reliability. The validity was conducted through try out that was covering 80 questions includes the pre-test and post-test. Moreover, the face and content validity of the test, the teacher of MAN 1 Kediri was chosen to validate the test. She was chosen as her expertise in developing test for students and experience as the senior teacher of MAN 1 Kediri.

**RESULTS**

The result of the pretest scores for the experimental and control group was served in the table 1.

**Table 1. The Result of the Pre-test of narrative-related vocabulary achieved by objective test**

|                      | Descriptive Statistics |              |              |         |          |
|----------------------|------------------------|--------------|--------------|---------|----------|
|                      | N                      | Minimum Score| Maximum Score| Mean    | Std. Deviation |
| Pre-Test of Experimental Group | 32                      | 60.00       | 87.50        | 74.9    | 7.34895  |
| Pre-Test Control Group       | 32                      | 60.00       | 85.00        | 73.4    | 7.08842  |

The Table 1 is showing that the mean score of experimental groups was 74.9 while the mean score of control group was 73.4. Both mean scores are indeed different, moreover, to know if the mean scores are statistically different or not a test was conducted IBM’s statistical analysis software program SPSS. A homogeneity test was conducted to know whether the mean of both groups was having significance difference or not. The result of the homogeneity test of pre-test between experimental and control group is shown in table 2.

**Table 2. The Result for Homogeneity of the Pre-test of narrative-related vocabulary between Classes**

| Test of Homogeneity of Variance | Levene Statistic | df1 | df2 | Sig.  |
|--------------------------------|------------------|-----|-----|-------|
| Pre-Test Result of Experimental and Control Groups | Based on Mean | .093 | 1   | 62 | .761 |
|                                            | Based on Median | .126 | 1   | 62 | .724 |
|                                            | Based on Median and with adjusted df | .126 | 1   | 61.467 | .724 |
|                                            | Based on trimmed mean | .089 | 1   | 62 | .767 |

Table 2. shows that the significant value based on mean of both groups is .761. This result is higher than □ (5% or .05) which means that there was no significance difference of pre-test between experimental and control group based on their mean scores. The test homogeneity of variance also explained that the two classes were equal before the treatment was conducted. For
this case, one of requirements to conduct an independent sample t-test was fulfilled to analyze the post-test scores of the experimental and control group. However, there is also another requirement to know what the exact method used to analyze the post-test of both groups. This requirement was to know whether the data collected were normally distributed or not. To know the data distribution of both groups a normality of the data distribution test is conducted use the same IBM’s statistical analysis software program SPSS. The result of the normality of the data distribution test was depicted in table 3.

### Table 3. The result of normality of the data distribution of experimental and control groups

| Tests of Normality | Kolmogorov-Smirnova Statistic | Shapiro-Wilk Statistic |
|--------------------|-------------------------------|-----------------------|
|                    | df | Sig. | df | Sig. |
| Class              |    |      |    |      |
| Pre-Test of Experimental Group (Twitter) | .120 | .200 | .950 | .144 |
| Post- Test of Experimental Group (Twitter) | .143 | .094 | .959 | .254 |
| Pre-Test of Control Group (Conventional) | .123 | .200 | .949 | .133 |
| Post-Test of Control group (Conventional) | .146 | .151 | .945 | .161 |

After analyzing all the data from experimental and control group, the data is normally distributed as all the significance value based on Kolmogorov-Smirnov and Shapiro-Wilk is more than 0.05 (α > 0.05) so it can be stated that the distribution of vocabulary achievement data for pre-test and post-test is normally distributed. As the two requirements had been fulfilled, the data from this research could be continued to next step that is analyzing the data using statistic parametric paired sample t test and independent sample t test. The result of paired sample t-test is described in table 4.

### Table 4. The result of paired sample t-test of experimental and control groups

| Paired Samples Test | Paired Differences | 95% Confidence Interval of the Difference | t | df | Sig. (2-tailed) |
|---------------------|--------------------|-------------------------------------|----|----|----------------|
| Mean                | Std. Deviation     | Std. Error Mean | Lower | Upper |      |    |    |    |
| Pair 1              | Pre-Test Experimental - Post-Test Experimental | 11.71875 | 6.23587 | 1.10236 | -13.96702 | -9.47048 | - | 10.631 | 31 | .000 |
| Pair 2              | Pre-Test Control - Post-Test Control | -7.34375 | 3.75336 | .66351 | -8.69698 | -5.99052 | - | 11.068 | 31 | .000 |

Table 4 describes the result of paired samples test of both experimental and control group. After seeing the result of mean subtraction of pre- and post-test from experimental and control groups it can be concluded that the post test of both groups increased. The difference of pre- and post-test of experimental group is 11.71875; moreover, the difference of pre- and post-test of control group is 7.34375. It can be also seen from the significance value of both groups from the pre- and post-test. The significance value of the pre- and post-test of experimental group is .000 or less than .005 which is the same with the control group. This result means that there are significant differences between pre- and post-test in experimental and control groups. However, even though there are significant differences in pre- and post-test of both groups, it does not mean that both groups got the same improvement in the vocabulary achievement. In this case independent sample t-test should be conducted to know whether there is difference in the post test of experimental and control group to answer the first research question. The result of the test explained in table 4.

The table 5 shows the significance value of equal variances not assumed is .000 which is lower than .05 and it can be concluded that there was significant difference between the post-test result of experimental and control groups. The difference of the post-test result also can be seen from the mean of post-test result of both groups showing in table 5. In the table depicts that the post-test mean of experimental group is 86.6, however the post-test mean of control group is 80.7. Although both of group was increasing in the post-test result but the post-test result from experimental group is higher than the control group.
Moreover, the positive achievement is mostly coming from social networking media. In their study, the researcher can know that media Twitter can help the students increasing their vocabulary usage and size of vocabulary. The learning processes were conducted during the Covid-19 situation in which all the materials were delivered through online learning. Research by Malik et al. (2019) proved that there had been a lot of students, scholars and professionals who used media Twitter to communicate or seek information. Twitter served features that make the users be able to post idea and opinions by writing tweets. It also completed the features with hashtags, retweets, pictures, mentions, and likes so the users will be easiest in communicating and understanding the content of the issued that delivered by the users.

The finding of this research also complemented the research by Lou, Shah, and Crompton (2019). In their research they concluded that that Twitter was one of effective learning tool in improving students’ competence such as their vocabulary, grammar or how they are dealing with others. They also assumed that using media Twitter could be one of learning tool in improving students’ competence such as their vocabulary, grammar or how they are developing a content. Specifically in vocabulary, they found out that using media Twitter improved the variation of the vocabulary used by the students and their size of the vocabulary. The present study complemented the previous result that besides improving the vocabulary used by the students and their size of the vocabulary, the media Twitter also help them in increasing their achievement in vocabulary.

Previously, (Al-Khresheh & Al-Ruwaili, 2020) discussed the media used by EFL students in university. In their study they conclude that most of the student’s various media to make them easier in learning vocabulary. They suggested that future teacher and researcher need to try out various media to enhance students’ vocabulary. Since the situation nowadays, online media is needed to help the teacher to deliver materials especially vocabulary both in easy and interesting ways. Vocabulary itself is described as words that used for the base elements of language proficiency that has an expression, a form and meaning (Astatia, 2019), in which in delivering materials of vocabulary, the teachers need a media or online media that contain texts and picture or video in the same time. Research by Malik et al. (2019) proved that there had been a lot of students, scholars and professionals who used media Twitter to communicate or seek information as twitter served features that make the users be able to post their idea and opinions by writing tweets. It also completed the features with hashtags, retweets, pictures, mentions, and likes so the users will be easiest in communicating and understanding the content of the issued that delivered by the users.

In present study, the researcher can know that media twitter can help the students increasing their vocabulary achievement. By utilizing media twitter and completing the materials with clear description also interesting picture, it makes the students be able to more understand the meaning and function of the word especially narrative word. By seeing the picture attached in the tweet, they understand that the words or vocabulary are used for the past event. From the mean finding of the experimental group, we can also know that the students thought using media Twitter categorized as the student with very good achievement, lower than the experimental group.

Table 5. The result of t-test for the post test of experimental and control group

| Levene’s Test for Equality of Variances | t-test for Equality of Means | 95% Confidence Interval of the Difference |
|----------------------------------------|-----------------------------|----------------------------------------|
| Equal variances assumed                | Equal variances not assumed  |                                        |
| F                                      | Sig.                        | T                                      | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | Lower | Upper       |
| Post Test                              | 5.779                       | .019                                   | 3.992 | .000            | 5.85938         | 1.46784               | 2.92521 | 8.79354     |
|                                        | 3.992                       | 54.069                                 | .000            | 5.85938         | 1.46784               | 2.91663               | 8.80212     |

DISCUSSION

The results revealed that both of students increased their achievement in vocabulary. There was significant difference between the post-test result of experimental and control groups. However, after calculated statically using SPPS, it is found that the students of experimental group get better vocabulary achievement than students in control group. It is supported the research conducted by (Alqunayeer, 2016). He conducted the same research related with the using of media online in the Qassim University, Saudi Arabia. The result of his research showed positive achievement of students as they utilized Social Networking as media such as Twitter, Facebook, YouTube, and Instagram. Moreover, the positive achievement is mostly coming from social networking called Twitter.

The result of t-test for the post test of experimental and control group. After conducting the research, there are several important things highlighted by the researcher. These important things related to the implementation of the treatment during the learning process. The learning processes were conducted during the Covid-19 situation in which all the activities were conducted through online learning. The researcher who also took the role as the teacher conducted all the learning process used online application such as WhatsApp group and media Twitter. The first thing highlighted are related with the time for students to access the materials in Media Twitter. After the observation, it is known that
students need time in accessing the materials in media Twitter. In online learning, not all students could follow the learning process smoothly. Some of them might face problems such as the internet connection, the tools, or other unpredictable problems. Here, the teacher might give them extra time to read the materials and send the proof to the teacher that they had read the materials.

The Second important thing is the guidance or instruction how to access the materials in media Twitter. The teacher needs to prepare clear guidance of how to access the materials or give extra instruction for them. As media Twitter might be new for some of the students, teacher should patiently introduce the media to the students. From the present research, mostly students had known the media Twitter, however there also some of students did not know the media. They need to create a new account so they can access the materials. The teacher needs to give clear guidance in form of written text or voice not.

The third, in meeting each the teacher should make sure the students be able to use the vocabulary thought and all the students are involved in the learning process. As all the learning processes were conducted online, the teacher was challenged to make sure all of them could access the materials by asking the proof such as like or retweet in media Twitter. The teacher also should make sure all the students are able to use the vocabulary at least in a sentence by giving them tasks to do at home. This way also strengthens their understanding of the meaning and function of the words or vocabulary after reading it.

CONCLUSION

The present study was conducted to know the effectiveness of Twitter in increasing students’ vocabulary achievement. After analyzing the result of treatment, the researcher came out with two conclusions. The first conclusion supported the studies conducted by Hattem& Lomicka, (2016); Erzad & Suciati, (2018); Alshalan, (2019). In their research, they suggested future research to use Twitter as media in learning and teaching process. The present research proved that Twitter can be one of solution for online learning as it is effective to increase students’ vocabulary achievement than conventional media. Even the analysis of the pre and posttest both of group show significance difference. However, it can be seen in table 4.8 that the post-test result of experimental group is higher than the control group. The means of post-test also show categorization of their achievement. Based on Salazar (2016) by the range 0-100, the students of control group which got mean score 80.7 categorized as students with good achievement however the students of experimental group which got mean score 86.6 is categorized as students with very good achievement. Considering the results of the present study, there are several noteworthy contributions for all the practitioners related with this research such as schools, teachers, and future researchers. For the schools, as this research is conducted during the pandemic Covid-19, they should be able to prepare what is needed by the students during this pandemic. They should prepare for the worst possibilities if the students are not able to attend the class during the online learning. The school needs to prepare extra program for the students such as free credit for the students. The teacher also needs to prepare themselves if they want to implement media Twitter to help them in the learning process. First, they need to know more about Twitter and its features. As media sometimes Twitter changes their features. The teacher should follow the updated about this media. The teacher should also concern with the main problems of the students in accessing Twitter. The study time, internet connection and system as the main problem requires the teacher to put more attention to their students during the learning process using Twitter as Media.

REFERENCES

Abd, M., Ali, E., & Ahmed, S. (2015). The Effect of Twitter on Developing Writing Skill in English as a Foreign Language the Effect of Twitter on Developing Writing Skill in English. Arab World English Journal (AWEJ) Special Issue on CALL, 2, 134–149. www.awej.org
Alhabash, S., & Ma, M. (2017). A Tale of Four Platforms: Motivations and Uses of Facebook, Twitter, Instagram, and Snapchat Among College Students? Social Media and Society, 3(1). https://doi.org/10.1177/2056305117691544
Al-Khresheh, M. H., & Al-Ruwaili, S. F. (2020). An Exploratory Study into Vocabulary Learning Strategies Used by Saudi EFL learners. Journal of History Culture and Art Research, 9(2), 288. https://doi.org/10.7596/taksad.v9i2.2616
Alqunayeer, H. S. (2016). The Impact of Teaching through Twitter on Students’ Vocabulary Learning: A Case Study of Qassim University. World Journal of English Language, 6(2). https://doi.org/10.5430/wjel.v6n2p35
Antenos-Conforti, E. (2001). Chapter 4 Microblogging on Twitter: Social Networking in Intermediate Italian Classes. December.
Astatia, S. (2019). “Teachers’ Difficulties in Teaching Vocabulary at SMP Negeri 2 Jatibarang Brebes.”
Bozkurt, A., Aydin, B., & Et.al, T. (2016). Improving Creative Writing Skills of EFL Learners Through Microblogging. The Online Journal of New Horizons in Education, 6(3), 88–98.
Erzad, A. M., & Suciati. (2018). Social Media for Improving Students’ English Quality in Millennial Era. Jurnal Edulingua, 5(1), 7–14.
Johnson, S. B. (2015). Reaping the benefits of using Twitter in advanced language learning. OLBI Working Papers, 7, 97–109. https://doi.org/10.18192/olbiwp.v7i0.1365
Kabilan, M. K. (2019). Malaysian English language teachers’ satisfaction level of their professional development. English Language Teaching and Research Journal (ELTAR-J), 1(1), 49. https://doi.org/10.33474/eltar-j.v1i1.4770
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Lathief, M. (2014). *Research Methods on Language Learning an Introduction*. Malang: UM Press.

Luo, T., Shah, S. J., & Crompton, H. (2019). Using Twitter to support reflective learning in an asynchronous online course. *Australasian Journal of Educational Technology, 35*(3), 31–44. https://doi.org/10.14742/ajet.4124

Maclean, F., Jones, D., Carin-Levy, G., & Hunter, H. (2013). Understanding twitter. *British Journal of Occupational Therapy, 76*(6), 295–298. https://doi.org/10.4276/030802213X13706169933021

Malik, A., Heyman-Schrum, C., & Johri, A. (2019). Use of Twitter Across Educational Settings: A Review of the Literature. *International Journal of Educational Technology in Higher Education, 16*(1). https://doi.org/10.1186/s41239-019-0166-x

Manuel, C. (2007). *Mobile communication and society: A Global perspective*. Cambridge: The MIT Press.

Mthethwa, P. (2018). Teaching Vocabulary Using Multimedia: The Case of U.S. International Students. *Global Journal of Foreign Language Teaching, 8*(2), 68–75. https://doi.org/10.18844/gjflt.v8i2.3190

Nation, I. S. P. (2001). *Learning vocabulary in another language*. Cambridge University Press.

Rahimi, M. & Allahyari, A. (2019). Effects of multimedia learning combined with strategy-based instruction on vocabulary learning and strategy use. *SAGE, 9*(2). https://doi.org/10.1177/2158244019844081

Rosell-Aguilar, F. (2018). Twitter: A professional development and community of practice tool for teachers. *Journal of Interactive Media in Education, 2018*(1). https://doi.org/10.5334/jime.452

Tabar, H., & Khodareza, M. (2012). The Effect of Using Multimedia on Vocabulary Learning of Pre-Intermediate and Intermediate Iranian EFL Learners. *Journal of Basic and Applied Scientific Research, 2*(12), 12879–12891.

Trianasari, T. (2017). *The Effectiveness of Social Media Networking on Vocabulary Mastery to The Tenth Grade Students at SMAN 1 Jetis Ponorogo in Academic Year 2016/2017*. The Stateinstitute of Islamic Studies of Ponorogo.

Waring, R. (2002). Basic principles and practice in vocabulary instruction. *The Japan Association for Language Teaching*. 