

Concentration Of Student's Learning Through Utilization Of Quizlet Application On Learning Evaluation

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ABSTRACT

Concentration of student's learning is an important variable that can affect cognitive, affective, psychomotor, and students' scientific process skills. In efforts to improve the concentration of student's learning can be done by applying models, media, and learning strategies. In the study, interpretation and analysis of data increases the concentration of student learning by utilizing learning media based on the Quizlet application. Data of interpretation and analysis has showed that there was an increase in the concentration of student learning by using the Quizlet application in indicator of the attention gains value of 0.78 in the high category, an indicator of understanding with 0.77 in the high category, an indicator of activeness with 0.77 in the high category, accuracy indicators with 0.76 in the high category, and indicators of calm with 0.78 also in the high category. Thus, based on the interpretation of the values, it concludes that the application of Quizlet has the capability to improve the concentration of student's learning. The highest increase in learning concentration with the use of the Quizlet application as indicators of attention and calm gains value of 0.78 in the high category. On the contrary, the lowest increase in learning concentration with the use of the Quizlet application on accuracy indicators with a gain value of 0.76 in the high category. Based on the interpretation and analysis of the value of each indicator gain, it is concluded that the application of Quizlet can improve student learning concentration.

Keywords: Quizlet Application, Learning Evaluation, Students' Learning Concentration

INTRODUCTION

Learning concentration is a skill derives from student's behavior in the form of mastery, use, and assessment of basic attitudes and values, knowledge, and proficiency (Slameto, 2010). This skill is identical to the behavior of a student and can be observed through the changes. The concentration of learning is one of the variables that are important to control the learning process. Increasing concentrations of study affect cognitive, affective, psychomotor, and science process skills of students. Student's learning concentration can affect their understanding of the material, by which the students with high learning concentration find it easier to understand learning material (Aviana & Hidayah, 2015).

Concentration of learning is the same as student achievement, students with good learning concentration have an easier time understanding the material, which certainly has an impact on increasing their learning achievement (Murti, 2018). In addition, the student learning outcomes can be influenced by the concentration of study, students who have learned good concentration generally obtain good learning outcomes (Ningrum, 2019; Murniarti, E, 2020). Therefore, it takes effort to increase the concentration of student learning so that the learning process can be effective, efficient, and meaningful.

Many efforts can actually be made to increase learning concentration, for example, such as the use of learning media, implementing appropriate learning models, and implementing appropriate learning strategies (Adinata, 2017). Purba (2019) states that evaluation of learning assisted by the quizziz application can increase student learning concentration. Learning with the Picture and Picture method can increase students' learning concentration (Haryadi, 2017). The use of KMS (Kartu Menuju Sejahtera) media based on group counseling can increase student learning concentration (Ikawati, 2016). Meanwhile, the brain gym strategy is effective in increasing student learning concentration (Nuryana & Purwanto, 2010).

In addition, integrated learning in arts such as crafts can increase student concentration in learning (Suhesty, et al., 2018). The application of Numbered Head Together (NHT) cooperative learning can increase student learning concentration (Mahampang, 2015). Meanwhile, implementing the discovery learning model can increase student learning concentration (Jamhal & Jusriana, 2015). Likewise, the implementation of problem-solving learning models, student learning concentration can be improved by giving the right problem (Thohir, 2013; Günter, T., & Alpat, S. K., 2017).

On the other hand, learning concentration can be influenced by several factors including the lecture time and classroom environment (Izzati, 2014; Lamba, et al., 2015), traffic and environmental noise (Halil, et al., 2015; Yusuf, et al., 2018), patterns in having breakfast for students (Akbar, 2015; Risda, 2019), social interaction (Nuraida, et al., 2014), incidence of insomnia (Olii, et al., 2018), learning motivation and the insufficient of learning equipments (Dores, et al., 2019). These factors can lower the concentration of students learning if not properly controlled. These inhibiting elements are factors that are difficult to control by the teacher, considering that most of these factors are internal factors of students and complex environmental factors. Application of learning media, learning models, and interactive learning strategies are expected to minimize the inhibiting factors and elevated concentrations stimulate student learning.

The application of interactive learning media and integrated internet of things can improve cognitive, affective, psychomotor aspects, and science process skills. The use of exe media can improve students' generic skills (Harefa & Suyanti, 2019). The use of the kahoot application in learning evaluation can increase student motivation (Purba, et al., 2019). Meanwhile, the application of Sway media integrated project-based learning models can improve student learning outcomes (Harefa, et al., 2019). Thus, integrated media of internet of things such as the Quizlet application can be applied to stimulate improvement in cognitive, affective, psychomotor aspects, and science process skills.

The Quizlet application is a simple application that can be used as a learning medium and can be accessed via a smartphone and is in the form of a game (Wolff, 2016). This application accommodates students for independent learning and accommodates visual, audio-visual, and kinesthetic learning styles (Sari, 2019). This media can contain a variety of information that students can use to support learning (Hikmah, 2019). This media can affect students' learning attitudes, with the application of Quizlet media students are open to the learning process (Cinar, 2018). In addition, student collaboration can be formed more optimally with the application of this media (Troussas, et al., 2017; Setyaningrum, et al., 2019). Meanwhile, the Quizlet application can improve student learning responses to vocabulary understanding (Cha, Y. (2020), with this increase the learning process is more interesting and the discussion process can be effective and meaningful (Sodin & Dirgantoro, 2019). In this study, the application Quizlet is applied in an effort to increase student learning concentration.

METHODS

This research was conducted at Abdi Siswa Bintaro Senior High School, Tangerang from October - December 2019. The research sample was X MIPA 1 students who were selected using purposive sampling technique. The evaluation of learning applied to the research sample was carried out using the Quizlet application on the basic legal material for chemical calculations. Through the utilization of the application, the concentration of student learning analyzed by the study design one group pre-post-nontest nontest design as shown in Table 1.

Table 1. Research Design

Pre-nontest	Treatment	Post-nontest
X ₁	Q	X ₂

Description:

X₁ = student's pre-nontest score

X₂ = student's post-nontest score

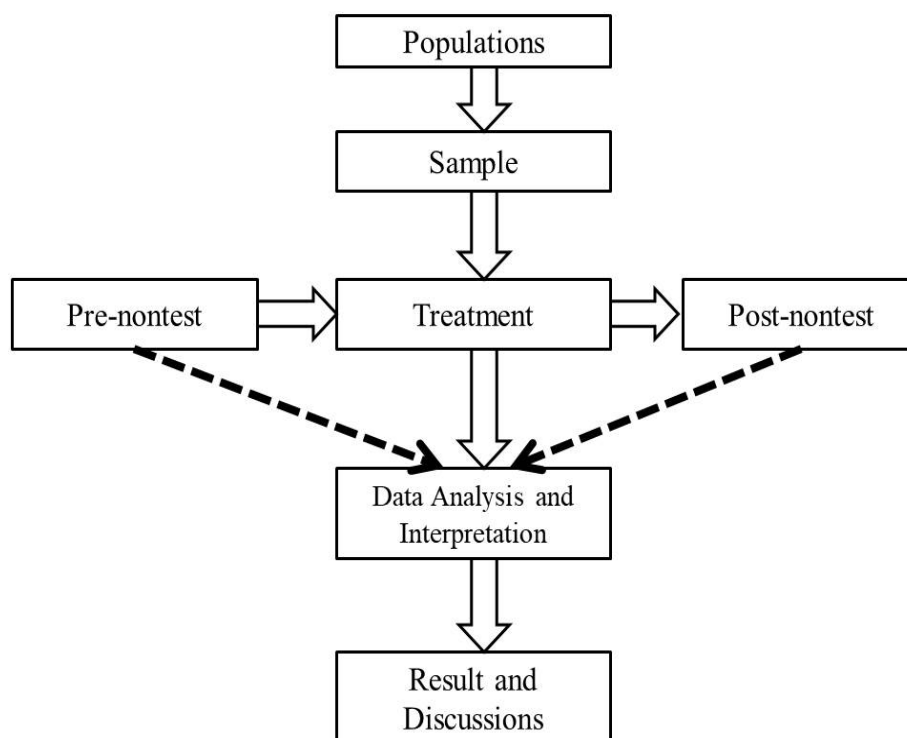
Q = Quizlet application

The research instrument is a questionnaire drafted with the option refers scale Linkert strongly agree, agree, disagree, and strongly disagree (Sugiyono, 2014). The research instrument consisted of 25 statements with a maximum score of 100 and a minimum score of 5. The statements were prepared referring to indicators of student learning concentration as in Table 2.

Table 2. Indicators of Student's Learning Concentration

No	Indicators	Questions' Number	Total of Questions
1.	Attention	3; 10; 11; 16; 24	5
2.	Comprehension	5; 7; 12; 20; 25	5
3.	Active	1; 6; 13; 19; 23	5
4.	Precision	2; 8; 14; 18; 21	5
5.	Calmness	4; 9; 15; 17; 22	5

The research sample was given one copy of the learning concentration questionnaire before and after using the Quizlet application with the stages as shown in Figure 1.

**Figure 1. Research Procedure**

The study began with the determination of the research sample, namely the X MIPA 1 students of SMA Abdi Siswa Bintaro, Tangerang with the purposive sampling technique method. Learning evaluation was carried out assisted by the Quizlet application with a research instrument in the form of a questionnaire consisting of 25 statements, where each statement was given a choice option, namely the strongly agree option was given a score of 4, the agree option was given a score of 3, the disagree option was given a score of 2, and the option strongly disagrees was given a score of 1. The research instrument data were analyzed, interpreted and discussed regarding the concentration of student learning. The increase in student learning concentration is interpreted by measuring the pre-nontest and post-nontest gain values with the provisions as in Table 3.

Table 3. Criteria of Gain Test Value Interpretation

Gain Value	Interpretation
0.71 – 1.00	High
0.31 – 0.70	Medium
0 – 0.30	Low

Based on the gain test value, the increase in student learning concentration is interpreted in the high, medium, and low categories.

RESULTS AND DISCUSSION

This research was conducted with the help of the Quizlet application, a research instrument in the form of a questionnaire consisting of 25 statements where each statement consists of 4 choice options. Questionnaires were given before and after the application of Quizlet to interpret and analyze student learning concentrations. The learning concentration questionnaire consists of five indicators, among others: attention; understanding; liveliness; accuracy; and serenity. The mean of the students' pre-nontest and post-nontest scores was shown in Table 4.

Table 4. Average Pre-nontest and Post-nontest Student Learning Concentration

	Pre-nontest	Post-nontest
N	32	32
Total	1243	2759
Mean	1,55	3,45

Based on Table 4 above, the average post-nontest score of student learning concentration was 3.45 (scale 4) higher than the pre-nontest score of 1.55 (scale 4). The data shows that there is an increase in the score of each indicator of learning concentration before and after the application of Quizlet, the comparison of the scores for each indicator of learning concentration before and after the application of Quizlet is shown in Figure 2.

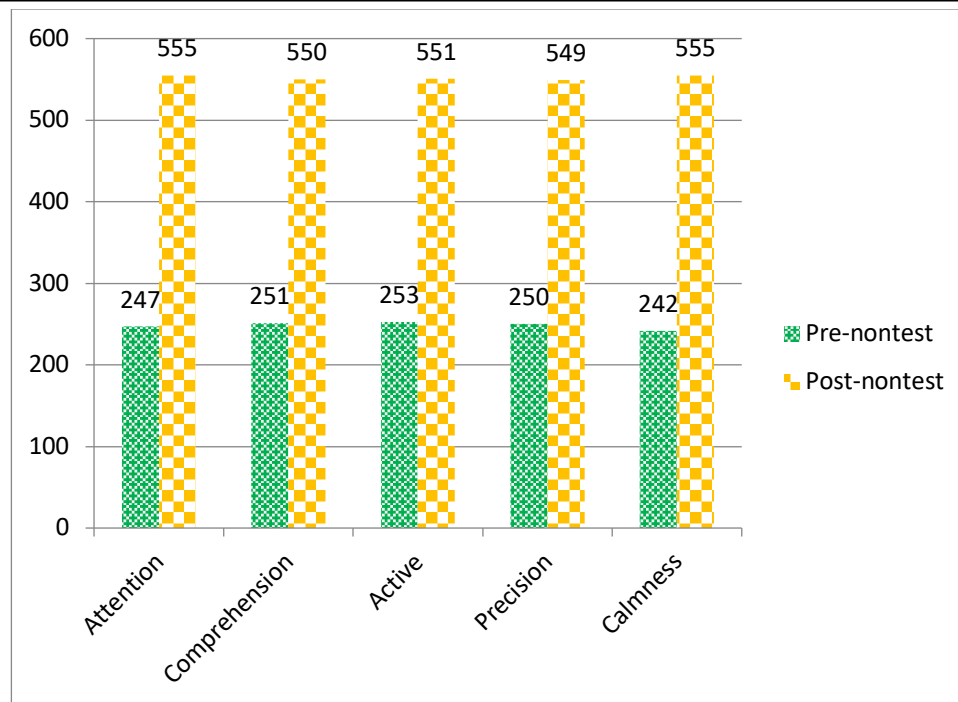


Figure 2. Comparison of Pre-nontest and Post-nontest Values for Students' Learning Concentration Indicators

Figure 2 shows that an increase in the concentration of student learning by applying Quizlet on evaluation. Indicators concentration of study that consists of attention, comprehension, liveliness, precision and calmness show that the value of post-nontest all indicators higher than the pre-nontest. This category can be interpreted by calculating the gain test value as shown in Figure 3.

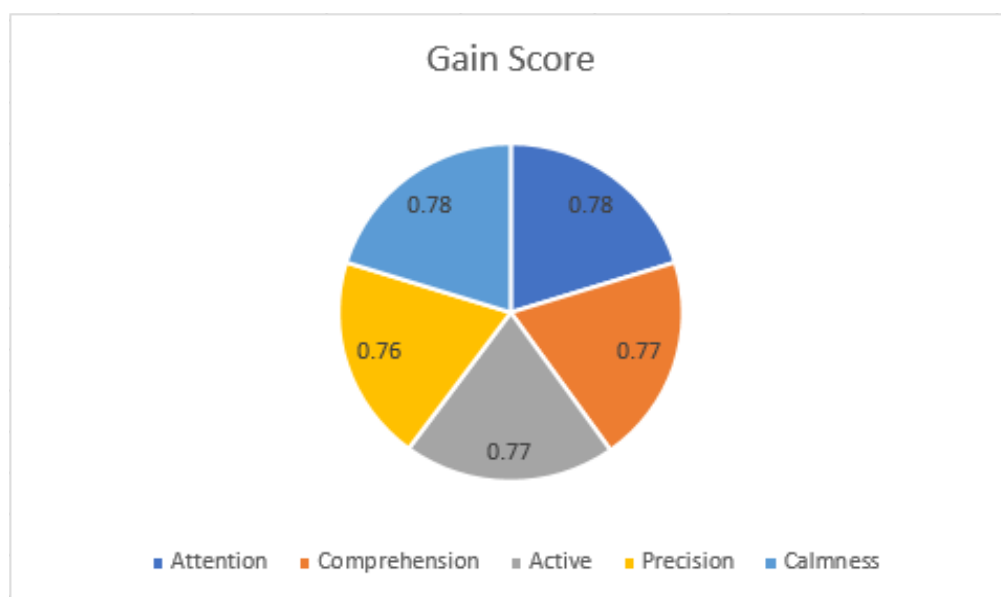


Table 3. Indicator of Student Learning's Concentration Gain Value

Figure 3 shows that there is an increase in student learning concentration with the use of the Quizlet application on the attention indicator with a gain value of 0.78 in the high category. The concentration of student learning in terms of understanding the indicator increased in the high category with a value gain of 0.77 with the utilization of Quizlet app. The concentration of student learning in terms of the activity indicators increased in the high category with a value gain of 0.77 with the utilization of Quizlet app. The concentration of student learning in terms of indicators of increased accuracy in the high category with a value gain of 0.76 with the utilization of Quizlet app. And, the concentration of student learning in terms of quietness indicator increased in the high category with a value gain of 0.78 with the utilization of Quizlet app.

The highest increase in learning concentration by using the Quizlet application on the indicators of attention and calmness with a gain value of 0.78 in the high category. Conversely, the lowest increase in learning concentration was done by using the Quizlet application on the accuracy indicator with a gain value of 0.76 in the high category. Based on the interpretation and analysis of the value of the gain of each indicator, it is concluded that the application Quizlet can improve students' concentration.

The Quizlet application is a simple application that can be used as a learning medium and can be accessed via a smartphone and is in the form of a game (Wolff, 2016). This application accommodates students for independent learning and accommodates visual, audio-visual, and kinesthetic learning styles (Sari, 2019). This media can contain a variety of information that students can use to support learning (Hikmah, 2019).

This media can affect students' learning attitudes, with the application of Quizlet media students are open to the learning process (Cinar, 2018). Furthermore, the cooperation of students can be formed more optimal implementation of this media (Troussas, et al., 2017; Setyaningrum, et al., 2019). Meanwhile, the Quizlet application can increase student learning responses, with this increase the learning process is more interesting and the discussion process can be effective and meaningful (Sodin & Dirgantoro, 2019). In the study, the application Quizlet can improve students' concentration.

Concentration is a skill learned in terms of the behavior of a student in the form of control, use, and assessment of the attitudes and values, knowledge and skills base (Slameto, 2010). This skill is identical to the behavior of a student and can be observed through the changes. The concentration of learning is one of the variables that is important to control in the learning process. Increasing concentrations of study affect cognitive, affective, psychomotor, and science process skills of students. The concentration can affect students' understanding of the material, students with high learning concentration more easily understand the teaching materials (Aviana & Hidayah, 2015). Learning concentration is directly proportional to student achievement, students with good learning concentration are easier to understand material that has an impact on increasing their learning achievement (Murti, 2018). In addition, the student learning outcomes can be influenced by the concentration of study, students who have learned good concentration generally obtain good learning outcomes (Ningrum, 2019).

CONCLUSION

The Quizlet application is an application that can be used to evaluate learning. The concentration of student learning is one of the important variables that must be evaluated. In this study, the interpretation and analysis of data on the improvement of student learning concentration were carried out using the Quizlet application. Interpretation and analysis of the data shows that there is an increase in the concentration of student learning with Quizlet application utilization in terms of indicators of attention to the value of the gain was 0.78 in the high category; increased concentration of student learning with Quizlet application utilization in terms of indicators of understanding with the gain of 0.77 at the high category; increased concentration of student learning with Quizlet application utilization in terms of indicators of activity of the gain value of 0.77 in the high category; increasing the concentration of student learning by using the Quizlet application in terms of accuracy indicators with a gain value of 0.76 in the high category; and an increase in the concentration of student learning with Quizlet application utilization in terms of indicators of tranquility with the gain was 0.78 in the high category. Thus, based on the interpretation of the value of the gain of each indicator, we conclude that the application Quizlet can improve students' concentration.

References

- Adinata, Y. C. (2017). Dampak Strategi Pembelajaran Terhadap Hasil Belajar Matematika Ditinjau dari Konsentrasi Belajar Siswa SMP.
- Akbar Arifin, L. E. O. (2015). Hubungan sarapan pagi dengan konsentrasi siswa di sekolah. *Jurnal Pendidikan Olahraga dan Kesehatan*, 3(1).
- Aviana, R., & Hidayah, F. F. (2015). Pengaruh Tingkat Konsentrasi Belajar Siswa terhadap Daya Pemahaman Materi pada Pembelajaran Kimia di SMA Negeri 2 Batang. *Jurnal Pendidikan Sains (JPS)*, 3(1), 30-33.
- Cha, Y. (2020). Effects of Different Vocabulary Learning Modes on EFL University Students. *Multimedia-Assisted Language Learning*, 23(1), 10-36.
- Çinar, İ., & Arı, A. The Effects of Quizlet on Secondary School Students' Vocabulary Learning and Attitudes Towards English. *Asya Öğretim Dergisi*, 7(2), 60-73.
- Dores, S. P., Jiran, O., Lisa, M. C., & Vorina, O. (2019). Analisis Konsentrasi Belajar Siswa pada Mata Pelajaran Matematika di Kelas V Sdn No 20 Sp2 Skph Manis Raya Tahun Ajaran 2018/2019. *J-PiMat*, 1(2), 57-68.
- Günter, T., & Alpat, S. K. (2017). The effects of problem-based learning (PBL) on the academic achievement of students studying 'Electrochemistry'. *Chemistry Education Research and Practice*, 18(1), 78-98.
- Halil, A., Yanis, A., & Noer, M. (2015). Pengaruh Kebisingan Lalulintas terhadap Konsentrasi Belajar Siswa SMP N 1 Padang. *Jurnal Kesehatan Andalas*, 4(1).
- Harefa, N., Silalahi, N. F. D., Sormin, E., Purba, L. S. L., & Sumiyati, S. (2019). The difference of students' learning outcomes with project based learning using handout and sway Microsoft 365. *Jurnal Pendidikan Kimia*, 11(2), 24-30.
- Harefa, N., & Suyanti, R. D. (2019, December). Science generic skills of 'chemistry'? prospective teachers: A study on collaborative learning using Exe-media. In *Journal of Physics: Conference Series* (Vol. 1397, No. 1, p. 012032). IOP Publishing.
- Haryadi, H. (2017). Efektifitas Strategi Pengajaran Edutainment Dengan Metode Picture And Picture Terhadap Konsentrasi Belajar Matematika Materi Pokok Himpunan Pada Siswa Kelas Vii Mts. Darussalam Bermi Tahun Pelajaran 2016/2017. *Jurnal Ilmiah Mandala Education*, 3(2), 81-98.
- Hikmah, D. (2019). Quizlet: A Digital Media for Learning Informatics Terms. *International Journal Of English Education And Linguistics*, 1(1), 1-9.

- Ikawati, M. P. D. (2016). Upaya meningkatkan konsentrasi belajar siswa KMS (Kartu Menuju Sejahtera) menggunakan konseling kelompok bagi siswa. *Jurnal Bimbingan dan Konseling*, 5(1), 158-164.
- Izzati, R. R. (2014). Pengaruh Waktu Perkuliahan Dan Lingkungan Kelas Terhadap Tingkat Konsentrasi Belajar Akuntansi Biaya 2 Pada Mahasiswa Pendidikan Akuntansi Angkatan 2011 Universitas Muhammadiyah Surakarta (Doctoral dissertation, Universitas Muhammadiyah Surakarta).
- Jamhal, F., & Jusriana, A. (2015). Implementasi metode pembelajaran discovery dalam meningkatkan kedisiplinan dan konsentrasi belajar peserta didik kelas XI b MA Madani Alauddin Paopao. *Jurnal Pendidikan Fisika*, 3(2), 137-142.
- Lamba, M. S., Rawat, M. A., Jacob, M. J., Arya, M. M., Rawat, M. J., Chauhan, M. V., & Panchal, M. S. (2014). Impact of teaching time on attention and concentration. *Age (in years)*, 18(22), 23-27.
- Mahmudah, N. (2015). Peningkatan Konsentrasi Dan Hasil Belajar Komposisi Fungsi Dan Fungsi Invers Dengan Pembelajaran Kooperatif Type Numbered Head Together (NHT) Pada Kelas XI TP 2. *Jurnal Derivat: Jurnal Matematika dan Pendidikan Matematika*, 2(2), 20-34.
- Murniarti, E. (2020). The Effect Of The Quality Assurance, Transformational Leadership, Academic Culture, And Work Commitment For Lecture's Performance. *PalArch's Journal of Archaeology of Egypt/Egyptology*, 17(4), 1809-1819.
- Murti, M. D., & Anika Candrasari, M. (2018). Hubungan Kapasitas Kranium Dan Daya Konsentrasi Belajar Dengan Prestasi Belajar Siswa Kelas Vi Madrasah Ibtidaiyah Muhammadiyah Gonilan (Doctoral dissertation, Universitas Muhammadiyah Surakarta).
- Ningrum, D. L. S. (2019). Pengaruh Interaksi Sosial Dan Konsentrasi Belajar Terhadap Hasil Belajar IPS Siswa Kelas IV SD Se-Gugus Jendral Sudirman Kecamatan Pangkah Kabupaten Tegal (Doctoral dissertation, UNNES).
- Nuraida, A., Halimah, M., & Rokhayati, A. (2014). Pengaruh Interaksi Sosial Terhadap Aktivitas Belajar Siswa Kelas VI SD Negeri Salebu Kecamatan Mangunreja. *PEDADIDAKTIKA: Jurnal Ilmiah Pendidikan Guru Sekolah Dasar*, 1(1).
- Nuryana, A., & Purwanto, S. (2010). Efektivitas brain gym dalam meningkatkan konsentrasi belajar pada anak. *Indigenous: Jurnal Ilmiah Psikologi*, 12(1).
- Olii, N., Kepel, B. J., & Silolonga, W. (2018). Hubungan Kejadian Insomnia dengan Konsentrasi Belajar Pada Mahasiswa Semester V Program Studi Ilmu Keperawatan Fakultas Kedokteran Universitas Sam Ratulangi. *JURNAL KEPERAWATAN*, 6(1).
- Purba, L. S. L. (2019). Peningkatan konsentrasi belajar mahasiswa melalui pemanfaatan evaluasi pembelajaran quizizz pada mata kuliah kimia fisika I. *Jurnal Dinamika Pendidikan*, 12(1), 29-39.
- Purba, L. S. L., Sormin, E., Harefa, N., & Sumiyati, S. (2019). Effectiveness of use of online games kahoot! chemical to improve student learning motivation. *Jurnal Pendidikan Kimia*, 11(2), 57-66.
- Risda, H. M. (2019). Hubungan Sarapan Dengan Konsentrasi Belajar Pada Mahasiswi Kebidanan Fakultas Kedokteran Universitas Andalas (Doctoral dissertation, Universitas Andalas).
- Sari, D. E. (2019). Quizlet: Aplikasi Pembelajaran Berbasis Smartphone Era Generasi Milenial. *Jurnal Pendidikan Ilmu Sosial*, 29(1), 9-15.
- Styaningrum, F., Sulistyowati, N. W., Pramusti, W. C., & Munawaroh, T. E. (2019, September). Media Quizlet Live Dalam Pembelajaran Ilmu Sosial Untuk Meningkatkan Kerjasama Mahasiswa. In *Seminar Nasional Pendidikan dan Pembelajaran 2019* (pp. 256-262).
- Slameto. (2010). Belajar dan Faktor-faktor yang Mempengaruhinya. Jakarta: PT. Rineka Cipta.
- Sodin & Dirgantoro, A. (2019). Respon Belajar Peserta Didik Terhadap Penggunaan Aplikasi Quizlet pada Mata Pelajaran IPS Kelas VIII di SMP Negeri 1 Sumbergompol. *INSPIRASI: Jurnal Ilmu-ilmu Sosial*, 16(2), 133-140.
- Sugiyono. (2014). Metode Penelitian Pendidikan Pendekatan Kuantitatif, Kualitatif, dan R&D. Bandung: Alfabeta
- Suhesty, A., Wanda, A., Dewandari, B. P., & Al-Muti'ah, B. K. (2018). Seni Kriya Dengan Limbah Pohon Hutan Tropis Kalimantan Untuk Meningkatkan Konsentrasi Anak. *Psikostudia: Jurnal Psikologi*, 7(1), 32-39.
- Thohir, K. (2013). Peningkatan Konsentrasi Belajar Menggunakan Metode Problem Solving Di Kelas VII D SMP Negeri 31 Purworejo Tahun Pelajaran 2012/2013 (Doctoral dissertation, Pendidikan Matematika-FKIP).

Troussas, C., Krouska, A., & Virvou, M. (2017, August). Social interaction through a mobile instant messaging application using geographic location for blended collaborative learning. In 2017 8th International Conference on Information, Intelligence, Systems & Applications (IISA) (pp. 1-5). IEEE.

Wolff, G. (2016). Quizlet Live: The classroom game now taking the world by storm. *The Language Teacher*, 40(6), 25-27.

Yusuf, A., Wanto, N., & Pertiwi, D. (2018). Perbedaan tingkat konsentrasi belajar siswa antara kebisingan lingkungan sekolah SDN 03 Alai dan SD Pertiwi 3 Padang. *Jurnal Kesehatan Andalas*, 6(3), 484-489.