The Effect of Using Edmodo Learning Media and Learning Motivation on Fiqih Learning Outcomes

Rahmah Fadilah Tanjung*[1], Asnil Aidah Ritonga[2], Yahfizham[3]

[123] Universitas Islam Negeri Sumatra Utara Medan, Indonesia
e-mail: rizkiakmalia.mpd@gmail.com

ABSTRACT. *This study aims to find the effect of using Edmodo learning media on learning outcomes, the effect of learning motivation on learning outcomes, and the interaction between Edmodo learning media and learning motivation on Fiqh learning outcomes for students of class VIII MTsN 2 Medan. This type of research is a quantitative study with a population of all eighth-grade students consisting of 10 classes (401 students). Based on the Cluster Random Sampling technique, one class is used as a learning class with Edmodo media and another without Edmodo media. The research instruments used were tests and questionnaires. The normality test for learning outcomes data is the Liliefors test, and the homogeneity test is Fisher's and Bartlett's tests. The data analysis technique used two-way ANOVA at significant = 0.05. The study's results revealed an influence of Edmodo learning media on students' fiqh learning outcomes, where students' fiqh learning outcomes with Edmodo learning media were higher (26.22) than students' non-Edmodo learning media fiqh learning outcomes (23.25). The influence of learning motivation on learning outcomes obtained fiqh learning outcomes of students with high learning motivation was higher (27.12) than that of students with low learning motivation (22.03). While the interaction between learning media and learning motivation on students' fiqh learning outcomes through the results of the 2 x 2 ANOVA factorial calculation, the interaction factor value F = 9.113 and the P-Value = 0.004 smaller than 0.05. Thus there is an interaction between learning media and learning motivation on students' fiqh learning outcomes at MTsN 2 Medan.*

Keywords: *Learning Media, Learning Motivation, Learning outcomes, Learning Edmodo*

INTRODUCTION

The development of communication technology and social media is currently taking place so rapidly and quickly. Any information can be easily accessed anywhere and at any time using smartphones, tablets, and laptops connected to the internet network. These sophisticated tools are now available, ranging from the most affordable to the most expensive. The presence of this sophisticated, low-cost class tool expands the public's ability to access various things in cyberspace via mobile. Apart from low-cost internet access, there are institutions that offer Free Hot Spot services, particularly educational institutions, which can be used by teachers, students, lecturers, and their students. Of course, with this digitization, information delivery in all forms becomes easier and less expensive. Beyond that, and yet cheap and easy internet access does have an indirect impact on how students learn by allowing them to explore all kinds of information related to the material they are studying within the context of learning activities (Fitriasari et al., 2018). This can be seen in students' tendencies when given assignments from teachers, one of which is completed by searching the internet for the necessary data.

Based on the mentioned phenomenon, a teacher and student must truly comprehend and master technology in order for it to be used positively to improve educational quality. This is critical

because, regardless of whether or not technology must become more human-like in the future. When it comes to learning, the need for a concept and mechanism for IT-based teaching and learning (E-Learning) is unavoidable. Edmodo is one of the media that can be used in e-learning. Edmodo is a social media-based learning platform for teachers, students, and schools. According to Zwang (Zwang, 2010), Edmodo is a social networking-based educational site with various educational content. In real - time basis, teachers can post learning materials from various links and videos, project assignments, and student grade notifications. In addition, Edmodo can store and share all digital content, such as blogs, links, images, videos, documents, and presentations.

Meanwhile, Edmodo, according to Gruber (Gruber, 2008), allows users to easily create groups and various files, links, videos, and images that are equipped with alerts, assignments, and event agendas. Edmodo's strengths, according to Umaroh (Umaroh, 2012), include making learning less dependent on time and place and making classes more dynamic. Furthermore, Edmodo can assist teachers in creating a virtual class based on real-world class divisions at school, with assignments, quizzes, and grades at the end of each lesson. Edmodo can provide new variations in fiqh teaching and learning activities. Students enjoy learning activities that are similar to those found on Facebook. When students are happy, they are more motivated to learn. This Edmodo media can help students overcome difficult lessons and low cognitive scores. Furthermore, it is supported by assignment and quiz features in this media, which allow students to practice and improve cognitive learning outcomes.

Based on the explanation above, it is clear that the involvement of e-learning learning via the Edmodo application has an impact on student abilities and student learning outcomes. This is in line with the findings of Divine research (Ilahi et al., 2021), which found that multiple regression calculations yielded a good value for the independence variable of 43.30% and motivation of 54.48%, indicating that learning independence and motivation via Edmodo have an effect on learning outcomes. Furthermore, Destian Albet and Tri Sudarwanto stated that the independent variable (use of the Edmodo application) had a 17.1% effect on the dependent variable (student learning outcomes), and that the use of the Edmodo application could affect student learning outcomes with a significant t-test value of 0.018 (Fernanda & Sudarwanto, 2021). Edmodo's social media has a significant impact on student learning outcomes (Rahmawati, 2015). In line with this, Ricardo and Meilani (Ricardo, R., & Meilani, 2017), proved that learning interest and motivation have a positive and significant influence on student learning outcomes, both simultaneously and partially. Saputra (Saputra, H. D., Ismet, F., & Andrizal, 2018) discovered a positive and significant relationship between learning motivation and student learning outcomes. Several different strengths can motivate anyone (Akmalia, 2021). According to Sudirman, a student is always starting to grow because failure in learning is caused not only by the student, but also by the teacher who is not successful in cultivating student learning motivation, resulting in a decrease in student interest in learning, a decrease in learning enthusiasm, and poor learning outcomes (Tirtayadi, A., Yulina, Y., & Sudirman, 2017). As a result, improving educational quality is primarily in the hands of teachers, who serve as leaders in the classroom learning process (Akmalia, 2019).

The presence of the Covid 19 pandemic has also caused the learning process to switch from offline to online, with teaching materials being provided via Whatsapp or other applications. With the implementation of the online learning system, students must have access to resources that can support these activities, such as smartphones, networks, and data packages (Akmalia, 2021). As it's too rapid changes in the learning process make the online learning process ineffective and passive, because teachers send material without explaining and influencing student learning motivation, student learning motivation becomes low to participate in the online learning process, and finally low student learning motivation affects student learning results. Such learning conditions also occur at MTsN 2 Medan, where most teachers continue to use teacher-centered learning methods such as lecture, discussion, and assignment. In fact, many teachers still do not use learning media as a support to successful learning. Aside from that, based on the

documentation obtained, students' Fiqh learning outcomes in midterm tests remained low, falling short of the KKM (70) with 32 students. This can be seen from the following table:

Table 1
Mid-Semester Examination Scores for VIII-10 Grade in Fiqh Subject

SCORE	FREQUENCY	PERCENT%
50	4	12,5
52	3	9,375
56	5	15,625
58	6	18,75
61	4	12,5
65	5	15,625
66	3	9,375
68	2	6.25
TOTAL	32	100

(Source: Fiqih Teacher at MTsN 2 Medan)

Based on the data presented above, it is possible to conclude that students' midterm exam results continue to fall short of the KKM. As a result, a more in-depth investigation into the use of the Edmodo application and learning motivation on student learning outcomes is required. This is because the use of learning applications in the teaching and learning process is currently required, so this research can be used as a reference for educators to determine whether the Edmodo application can truly help educators and students in the learning process and can motivate students in learning and online school/ e-learning in order to achieve good learning outcomes.

METHOD

This study uses a quantitative approach to the experimental method. The sample population consisted of two classes, class VIII-10 with 32 students as the experimental class and class VIII-8 with 32 students as the control class. The data was gathered through the distribution of questionnaires on learning motivation and learning achievement test questions. To collect data on students' learning motivation, Edmodo media was used as a Fiqh learning medium, as well as tests to collect data on student learning outcomes. To formulate research problems, the technique used in analyzing data is the ANOVA technique with paths (2x2 factorial design). Prior to testing the hypothesis, however, the learning outcomes data were subjected to a requirement analysis test that included the normality, homogeneity, and linearity tests. The Liliefors test was used to determine the normality of the distribution of learning outcomes data on Hadas material and how to purify it, while the F test and Barlet's test were used to determine the homogeneity.

RESULT AND DISCUSSION

The Effect of Using Edmodo Learning Media on Students' Fiqh Learning Outcomes

The analysis results show that using Edmodo learning media has an effect on Fiqh learning outcomes. The F value for the Learning Media factor is 4.447, and the P-Value is 0.039, because the P-Value is less than α 0.05, indicating that there is an influence between the use of Edmodo learning media and students' Fiqh learning outcomes.

In this case, the learning outcomes of fiqh students at Madrasah Tsanawiyah Negeri 2 Medan who were taught with Edmodo media were higher than the learning outcomes of fiqh students who were not taught with Edmodo media. The findings of this study have been validated as factual. This is also evident in the average fiqh learning outcomes of Madrasah Tsanawiyah Negeri 2 Medan students who are taught with Edmodo Media (x = 26.22), which are higher than

Rahmah Fadilah Tanjung*1, Asnil Aidah Ritonga2, Yahfizham3

the results of Madrasah Tsanawiyah Negeri 2 Medan students who are not taught with Edmodo media (x = 23, 25). Table 1 below will provide additional information.

Table 1

Descriptive Statistics

	N	Range	Mini mum	Maxi mum	Sum	Mean		Std. Deviation	Variance
	Statistic	Statistic	Statis tic	Statis tic	Statisti c	Statisti c	Std. Err or	Statistic	Statistic
Edmodo Media Learning Outcomes	32	13	19	32	839	**26,22**	625	3,535	12,499
Non-Edmodo Media Learning Outcomes Valid N (listwise)	32 32	13	17	30	744	**23,25**	589	3,331	11,097

According to the data presented above, the learning outcomes of Fiqh students at Madrasah Tsanawiyah Negeri 2 Medan who were taught using Edmodo Media were average or mean = 26.22, variance = 12.499, and standard deviation = 3.535. The highest possible score is 32, and the lowest possible score is 19. While Fiqh students at Madrasah Tsanawiyah Negeri 2 Medan who were taught with Non-Edmodo media achieved an average or mean of 23.25, variance of 11.097, and standard deviation of 3.331. The highest possible score is 30 and the lowest possible score is 17.

The Effect of Learning Motivation on Students' Fiqh Learning Outcomes

The findings indicate that learning motivation has an impact on students' Fiqh learning outcomes. The F value for the learning motivation motivation factor is 76.658, and the P-Value is 0.000, because the P-Value is less than α 0.05, indicating that learning motivation has an effect on students' Fiqh learning outcomes.

In this case, the fiqh learning outcomes of MTsN 2 Medan students with higher learning motivation are factually tested compared to the fiqh learning outcomes of MTsN 2 Medan students with low learning motivation. This is also demonstrated by the fact that the average fiqh learning outcomes of MTsN 2 Medan students with high learning motivation ($\bar{x}$ = 27,12) are higher than those of MTsN 2 Medan students with low learning motivation ($\bar{x}$ = 22,03). Table 2 below will provide more information.

Tabel. 2

Descriptive Statistics

	N	Range	Mini mum	Maxi mum	Sum	Mean		Std. Deviation	Variance
	Statistic	Statistic	Statis tic	Statis tic	Statis tic	Statisti c	Std. Error	Statistic	Statistic
Learning Outcomes with High Learning Motivation	34	12	20	32	922	**27,12**	,496	2,890	8,349

		11	17	28	661	**22,03**	,461	2,526	6,378
Learning Outcomes with Low Learning Motivation	30								
	32								
Valid N (listwise)									

The learning outcomes of Fiqh of MTsN 2 Medan with high learning motivation obtained an average or mean = 27.12, variance = 8.349, and standard deviation = 2.890 based on the data presented above. The highest possible score was 34, and the lowest possible score was 20. Meanwhile, learning outcomes of Fiqh of MTsN 2 Medan with low learning motivation achieved an average or mean of 22.03, a variance of 6.378, and a standard deviation of 2.526. The highest possible score is 28, and the lowest possible score is 17.

The Effect of Using Edmodo Learning Media and Learning Motivation on Students' Fiqh Learning Outcomes

The findings indicate that students' Fiqh learning outcomes are influenced by their use of Edmodo learning media and learning motivation. Because the P-Value = 0.004 for the interaction factor indicates that it is less than 0.05, it can be concluded that the interaction between Learning Media and Learning Motivation influences students' Fiqh learning outcomes.

Thus, it can be concluded that there is an interaction between learning media and learning motivation on the outcomes of fiqh subject that has been empirically tested using SPSS 21.

Table. 3
Interaction Test Results of Learning Media with Learning Motivation

Dependent \ Media Pembelajaran

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	641,046[a]	3	213,682	30,368	,000	,603
Intercept	37361,780	1	37361,780	5309,733	,000	,989
MEDIAPEMBELAJARAN	31,501	1	31,501	4,477	,039	,069
MOTIVASI	539,405	1	539,405	76,658	,000	,561
MEDIAPEMBELAJARAN * MOTIVASI	64,126	1	64,126	9,113	,004	,132
Error	422,188	60	7,036			
Total	39137,000	64				
Corrected Total	1063,234	63				

a. R Squared = ,603 (Adjusted R Squared = ,583)

There is an interaction between learning media and learning motivation motivation for learning fiqh of MTsN 2 Medan students, as evidenced by Edmodo learning media providing fiqh learning outcomes for students with high learning motivation versusthan students with low learning motivation and non-Edmodo learning media. It has also been demonstrated that learning

fiqh results for MTsN 2 Medan students with high learning motivation outperform students with low learning motivation.

It is identified from the average score of fiqh learning outcomes for MTsN 2 Medan students who were taught with Edmodo media to students with high learning motivation ($\bar{x} =$ 28,82) high learning motivation (= 28.82) higher than MTsN 2 Medan students who were taught with Edmodo media to students with low learning motivation ($\bar{x} = 21,00$) and the average learning outcomes of fiqh of MTsN 2 Medan students who are taught with non-Edmodo media with high learning motivation ($\bar{x} = 25,41$) is higher than students with low learning motivation ($\bar{x} = 21,60$). The following figure shows the interaction of learning media and learning motivation in influencing the learning outcomes of fiqh students at Madrasah Tsanawiyah Negeri 2 Medan:
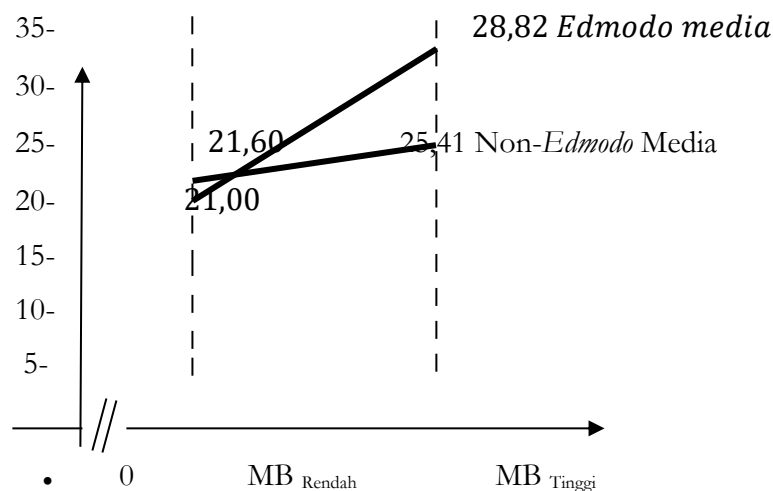

Figure 1. Interaction of Learning Media and Learning Motivation

Discussion

The results of the first hypothesis test show that Fiqh learning outcomes of MTsN 2 Medan students who are taught with Edmodo Media and have high learning motivation ($\bar{x} =$ 28,82) outperform Fiqh learning outcomes of MTsN 2 Medan students who have low learning motivation ($\bar{x} = 21,00$). The results of testing the second hypothesis show that fiqh learning outcomes of MTsN 2 Medan students taught with non-media Edmodo and high learning motivation ($\bar{x} = 25,41$) are higher than fiqh learning outcomes of MTsN 2 Medan students taught with low learning motivation ($\bar{x} = 21,60$). So, in this study, learning motivation is divided into two categories: high and low. According to the findings of the overall data analysis, the average Fiqh learning outcomes of MTsN 2 Medan students with high learning motivation ($\bar{x} = 27,12$) were higher than those studying fiqh with low learning motivation ($\bar{x} = 22,03$).

This demonstrates that learning motivation has a significant impact on students' fiqh learning outcomes, with students taught with Edmodo learning media achieving high learning motivation and good fiqh learning outcomes, whereas students taught with non-Edmodo media have low learning motivation and poor fiqh learning outcomes. good. These findings show that learning motivation has a significant impact on students' fiqh learning outcomes.

Students who are engaged in learning have different learning motivations. But one thing is certain: every student wants to be able to achieve high learning outcomes while also having value in their life. As a result, every student has directed learning motivation that encourages them to do

something with all of their abilities. With the involvement of learning motivation, it is possible to carry out learning activities independently and optimally. The role of learning motivation in a student's learning success is critical and cannot be separated. The higher the student's learning motivation, the higher their effort to achieve learning success. Because one's learning motivation provides the motivation, activating all existing energy, including the prime motivator for learning activities. As a result, motivation can be said to have a positive and significant relationship with learning outcomes. In line with this, Rusmayani revealed that there was a significant difference in the final test results, with the group of students who were taught with a media having the highest score compared to those who were not taught with a media (Rusmayani, 2017).

While testing the third hypothesis, there is an interaction between learning media and learning motivation in influencing the students' Fiqh learning outcomes. When comparing the average fiqh learning outcomes of MTsN 2 Medan students with high learning motivation who are taught with Edmodo media ($\bar{x} = 28,82$) to MTsN 2 Medan students with non-Edmodo media and high learning motivation ($\bar{x} = 25,41$). The average fiqh learning outcomes of MTsN 2 Medan students are then presented with low learning motivation taught by Edmodo media ($\bar{x} = 21,00$) ower than the average fiqh learning outcomes of MTsN 2 Medan with non-Edmodo media and low learning motivation ($\bar{x} = 26,04$).

These findings show that using Edmodo media to teach fiqh is advantageous to using non-Edmodo media. This is consistent with Edmodo media being a learning media that can assist and encourage students to develop self-motivated learning attitudes. Because students in this media are expected to be good at managing time and solving their own problems within the time limitations.

Halil's (Halil, 2020) research demonstrated that online learning using Edmodo was carried out effectively at USN Kolaka's FKIP. Edmodo's effectiveness arises from its practicality (simple appearance, various features, and support for various file types), as well as its accessibility (can be accessed even if the connection is unstable, and saves internet quota). The Edmodo platform's convenience has increased the average level of student participation in online learning to 89.18%. Meanwhile, Hafizah describes that the overall average effect size of using Edmodo-assisted learning media on high school student learning outcomes is 2.51 in the high category (Hafizah, Naura, 2021). The use of Edmodo really helps the student learning process, and it is easily accessible anywhere and at any time, so it can be concluded that Edmodo media with the Discovery Learning learning model has an influence on student learning outcomes in class VIII SMP Negeri 1 Salatiga (Jumaeroha, 2019). Independent learning contributes positively to learning outcomes when using Edmodo; learning motivation contributes positively to learning outcomes; and self-determination and learning motivation both contribute positively to learning outcomes. (Ilahi et al., 2021).

In addition to that, but the findings of Sabila's research (Sabila, 2020) show that teachers conduct online assessments with Edmodo using appropriate procedures, where Edmodo leads teacher and student technology knowledge and Edmodo makes tests practical and motivating. Samratulangi (Samratulangi, 2021) also demonstrates that Edmodo's e-learning schoology and e-learning media have a significant impact on students' learning outcomes because students can access material provided by lecturers for free. The effectiveness of implementing learning with the Edmodo-assisted problem-based learning model is 94.11%, implying that using the Edmodo application in learning can increase student self-managed learning (Aulia, 2019).

According to the findings of this study and previous research, Edmodo media has a significant impact on student learning outcomes. The novelty of this research is that the Edmodo media has not been implemented at Madrasah Tsanawiyah Negeri 2 Medan, especially in Fiqh subjects. According to Article 10 paragraph 1 of Law No. 14 of 2005 Concerning Teachers and Lecturers, teachers must be able to master four competencies: pedagogic competence, personal competence, social competence, and professional competence. One of the requirements for becoming a professional teacher is the ability to master and apply learning media in the classroom a nd Edmodo media is an appropriate learning media to use in madrasah.

*Rahmah Fadilah Tanjung*1, Asnil Aidah Ritonga2, Yahfizham3*

CONCLUSION

The Edmodo learning media has an effect on the results of Fiqh learning for students at MTsN 2 Medan. In this case, students' Fiqh learning outcomes with Edmodo learning media outperform students' Fiqh learning outcomes with Edmodo non-learning media. The average learning outcomes of fiqh taught using Edmodo learning media ($\bar{x}$ = 26,22) are higher than the learning outcomes of students learning fiqh using non-Edmodo learning media ($\bar{x}$ = 23,25). The Fiqh learning outcomes of MTsN 2 Medan students with high learning motivation outperformed those of MTsN 2 Medan students with low learning motivation. The average fiqh learning outcomes of MTsN 2 Medan students with high learning motivation ($\bar{x}$ = 27,12) are higher than the learning outcomes of MTsN 2 Medan students with low learning motivation ($\bar{x}$ = 22,03). While the interaction between learning media and learning motivation is the result of learning fiqh for MTsN 2 Medan students, the interaction factor shows a F value = 9.113 and a P-Value value = 0.004, because P-Value = 0.004 means less than α 0.05. This means that Learning Media and Learning Motivation have an effect on students' Fiqh learning outcomes.

REFERENCIES

Akmalia, R. (2019). *Pengaruh Perilaku Individu, Kelompok Dan Tim Kerja Terhadap Kinerja Guru Di Sekolah Menengah Atas Negeri 3 Medan* [Universitas Islam Negeri Sumatera Utara]. http://repository.uinsu.ac.id/11863/

Akmalia, R. (2021). Intensitas Motivasi Berprestasi Melalui Pembelajaran Daring. *Pionir: Jurnal Pendidikan*, *10*(3), 1–11. https://doi.org/10.22373/pjp.v10i3.12174

Aulia, L. N. D. (2019). *Upaya peningkatan kemandirian belajar siswa dengan model problem-based learning berbantuan media Edmodo. 5*(1). https://doi.org/https://doi.org/10.21831/jipi.v5i1.18707

Fernanda, D. A. E., & Sudarwanto, T. (2021). Pengaruh Media Pembelajaran Online Berbasis Edmodo Terhadap Hasil Belajar Siswa. *Jurnal Pendidikan Tata Niaga (JPTN)*, *9*(2), 1195–1201.

Fitriasari, P., Tanzimah, T., & Sari, N. (2018). Kemandirian belajar mahasiswa melalui blended learning pada mata kuliah metode numerik. *Jurnal Elemen*, *4*(1), 1–8. https://www.researchgate.net/profile/Novita-Sari-11/publication/322889467_Kemandirian_Belajar_Mahasiswa_Melalui_Blended_Learning_pada_Mata_Kuliah_Metode_Numerik/links/5eb115fc299bf18b9595b3bf/Kemandirian-Belajar-Mahasiswa-Melalui-Blended-Learning-pada-Mata-Kuliah-Metode-Numerik.pdf

Gruber, F. (2008). *Edmodo: Microblogging for Education*. Some What Frank.

Hafizah, Naura, D. (2021). *Meta Analysis: The Effect of Edmodo Assisted Physics Learning Media on Student Learning Outcomes. 7*(Spesialissue). https://doi.org/https://doi.org/10.29303/jppipa.v7iSpecialIssue.822

Halil, N. I. (2020). *The Effectiveness of Using Edmodo as an Online Learning Platform in Covid-19. 4*(4). https://doi.org/https://doi.org/10.36312/e-saintika.v4i3.316

Ilahi, I., Rizal, F., & Irfan, D. (2021). Kemandirian dan Motivasi Belajar dalam Menggunakan Edmodo terhadap Hasil Belajar Siswa. *EDUKASI: Jurnal Pendidikan*, *19*(1), 75–89. https://doi.org/https://doi.org/10.31571/edukasi.v19i1.2322

Jumaeroha, D. (2019). Pengaruh Media Edmodo Terhadap Hasil Belajar IPA pada Materi Tekanan dengan Model Discovery Learning. *Jurnal Thabiea*, *2*(2). https://doi.org/http://dx.doi.org/10.21043/thabiea.v2i2.5995

Rahmawati, E. dkk. (2015). Pengaruh Media Edmodo Terhadap Hasil Belajar Peserta Didik Pada Mata Pelajaran Ekonomi Di Sma Negeri 1 Indralaya Utara. *Jurnal Profit*, *2*(2). https://doi.org/http://dx.doi.org/10.36706/jp.v2i2.5563

Ricardo, R., & Meilani, R. I. (2017). Impak Minat dan Motivasi Belajar terhadap Hasil Belajar Siswa

(The impacts of students' learning interest and motivation on their learning outcomes). *Jurnal Pendidikan Manajemen Perkantoran*, *1*(1), 79–92.

Rusmayani, S. dkk. (2017). Pengaruh Model Pembelajaran Problem Based Learning dan Motivasi Terhadap Hasil Belajar Fiqh Siswa Madrasah Tsanawiyah Negeri Stabat. *Edu Riligia*, *1*(1). https://doi.org/http://dx.doi.org/10.47006/er.v1i1.878

Sabila, N. F. (2020). *Incorporating Edmodo As Learning Management System Of Summative Assessment In Efl Classroom*. https://doi.org/https://doi.org/10.22460/eltin.v8i2.p%25p

Samratulangi, S. D. (2021). *Penggunaan Media E-Learning Shcoology dan Edmodo untuk Meningkatkan Hasil Belajar Mahasiswa*. *3*(1). https://doi.org/https://doi.org/10.30736/voj.v3i1.368

Saputra, H. D., Ismet, F., & Andrizal, A. (2018). Pengaruh motivasi terhadap hasil belajar siswa SMK. *Invotek: Jurnal Inovasi Vokasional Dan Teknologi*, *18*(1), 25–30. https://doi.org/https://doi.org/https://doi.org/10.24036/invotek.v18i1.168

Tirtayadi, A., Yulina, Y., & Sudirman, A. H. M. A. D. (2017). Hubungan Motivasi Belajar dan Persepsi Siswa Tentang Kompetensi Pedagogik Guru dengan Prestasi Belajar. *Pedagogi: Jurnal Pendidikan Dasar*, *5*(17).

Umaroh, S. (2012). *Penerapan Project Based Learning Menggunakan Microblogging Edmodo Untuk Meningkatkan Prestasi Belajar Siswa Pada Mata Pelajaran TIK*. Universitas Pendidikan Indonesia.

Zwang, J. (2010). *Edmodo: A Free, Secure Social Networking Site For School*. http://www.eschoolnews.com