Original Research Paper

The contribution of anxiety to high school students' learning motivation in online learning

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Abstract

The COVID-19 pandemic has brought a change from face-to-face learning to online learning; thus giving rise to students' anxiety. This study aims to determine the contribution of anxiety to the learning motivation of senior high school students in online learning. This research is designed in the form of quantitative research methods. The population consists of high school students in Yogyakarta with a research sample of 80 students. The sampling technique uses probability sampling. The data collection tool uses a learning motivation scale developed by researchers based on aspects of perseverance in learning, tenacious in facing difficulties, interest and sharpness of attention in learning, achievement in learning, and independence in learning. The learning motivation scale has an alpha Cronbach reliability coefficient of 0.940. Meanwhile, the scale of disability was developed by researchers based on aspects of heart, cognitive, somatic, and motor with an alpha Cronbach reliability coefficient of 0.860. Data analysis was carried out using the statistical analysis method of product-moment correlation from Pearson with the help of SPSS release 16. The results of the data analysis obtained a significant value of 0.002 ($p < 0.05$) and a correlation coefficient of -0.320, which means that there is a significant negative relationship between anxiety and student learning motivation in online learning. The coefficient of determination of 0.103 shows that anxiety contributes 10.30% to the motivation of upper-secondary students in online learning, while 89.70% is influenced by other factors that were not involved in this study.

Keywords: anxiety; learning motivation; online learning

1. Introduction

The Covid-19 pandemic that emerged in early 2020 has had an impact on all aspects of the lives of the world's population. This non-natural disaster has had a significant impact on the life sector, including education. The temporary closure of schools as an effort to contain the spread of the COVID-19 virus occurred in almost all parts of the world, including in Indonesia. The increasing coverage and impact of COVID-19 have led to the elimination of the teaching and learning process in the classroom (Aji, 2020). Li & Lalani (2020) in their research reported that 12.2 billion students are learning outside the classroom worldwide. As a replacement for face-to-face learning in class, learning is carried out online (online), namely distance learning using digital platforms. Learning is carried out through various digital media conferences such as Zoom Cloud Meeting, Google Meet, Cisco WebEx, and Mikogo.

In Indonesia, online learning is mandated by the Ministry of Education and Culture as one of the prevention of the spread of Covid-19. However, reportedly many schools already have obstacles to transferring their curriculum to the online version due to a lack of information technology infrastructure support (Azzahra, 2020). The policy, which was taken as a form of rapid response to the COVID-19 pandemic, also caused various problems, such as student learning, disruptions in assessments, and cancellation of assessments. This requires students to adapt to new learning systems and mechanisms. The inability of students to adapt makes their learning motivation disrupted (Aji, 2020).

Motivation is defined as a theoretical construct to explain initiation, direction, intensity, perseverance, and behavioural qualities, especially goal-directed behavior (Brophy, 2013). This is related to cognitive and affective processes, where there is interaction between learners and their learning environment according to contextual and social factors as supporting factors or barriers (Schuck et al, 2014). Motivation described as machine learning influences what, how, and when learning for learners (Schunk & Usher, 2019). Furthermore, Ryan & Deci (2000b) argue that motivated learners can carry out challenging learning activities that involve them actively in figuring out the right strategies to facilitate student learning so that students enjoy and show a better, diligent, and creative learning process.

Student learning motivation is divided into 2 forms, namely intrinsic and extrinsic motivation. Intrinsic motivation is defined as an action performed as an activity of inherent satisfaction rather than a form of separable consequence. It is related to internal factors, such as interests, pleasures, or challenges that a person develops in performing activities, for the sake of pleasure or satisfaction that converges in the activity. Meanwhile, extrinsic motivation is defined as a construct related to each activity carried out to achieve separable results. It is related to external factors in carrying out activities, such as rewards or recognition from others (Ryan & Deci, 2000a). Both forms of motivation should be shared by students simultaneously, but the fact is that some students have neither intrinsic nor extrinsic motivation, which is called motivation. This happens when students have reluctance or lack of motivation to learn. They have low self-efficacy and feel inadequate, so they assume learning will not produce the desired results and that doing tasks is also of no value (Hartnett, 2016).

Tam et al (2021) found that students who do online learning during the COVID-19 pandemic with higher intrinsic motivation will produce maximum learning achievement compared to students who do not have intrinsic motivation. According to Gurumoorthy & Kumar (2020), achieving an achievement requires the growth of learning motivation in students, both intrinsically and extrinsically. Learning motivation is a determining factor for poor student learning, causing low learning achievement. Therefore, learning motivation is considered an important success factor in the learning environment that will lead to learning pleasure and have an impact on better and complete student achievement in the learning process (Sierra, 2020).

However, preliminary studies conducted by researchers show that based on the opinions of several high schools (SMA) level teachers in Yogyakarta, it was found that, during online learning, students tend to get bored because they do not meet their friends, as a result many students often delay doing assignments and do not even do them, sleep late and wake up late. In addition, during learning activities at home, in almost all classes some students have problems, such as never entering the *e-learning* class, not doing and collecting assignments, always waking up late every day. Furthermore, from the teacher's search during *the home visit*, it was found that many students who experience motivation are characterized by laziness in learning activities. This fact is the opinion of Djamarah (2015), that if students do not have the motivation to learn, then these students can't carry out learning activities. Referring to this, student learning motivation becomes important in the learning process at school in various situations.

Many factors affect motivation and its impact on student learning, so it is necessary to further identify motivation and influencing factors during the online learning process (Lapitan et al, 2021). Several factors affect learning motivation, among others: goals, learner abilities, learner conditions, learner environmental conditions, elements in learners, and teacher efforts in learning learners (Siregar and Nara, 2014). In this case, one of the factors that is considered influential on student learning motivation is the condition of the learner which includes physical conditions and psychological conditions, as also conveyed by Ryan & Deci (2000a) as intrinsic factors. The ongoing COVID-19 pandemic which is not yet clear when it will end and the increase in exposure to cases is predicted to

affect student psychics, namely the emergence of anxiety. During the COVID-19 pandemic, high school students in Jordan experienced anxiety, namely 46.9% of female students 46.9% and 27.6% of male students (Al Azzam et al, 2021). In Indonesia, a survey conducted by the Indonesian Association of Psychiatrists regarding psychological problems that arose for 5 months (April-August 2020) in the age range of 17-29 years, showed that 65% experienced anxiety. This means that some high school students in Indonesia experience anxiety due to changes in the education system that are too fast. This is also reinforced by research by Darmayanti et al (2022), that 51.4% of grade 3 high school students feel anxious about learning during the COVID-19 pandemic. Research conducted by Sari and Winingsih (2021) also found that students of SMA Negeri 2 Kota Mojokerto during the COVID-19 pandemic experienced anxiety in the moderate category of 48%.

The American Psychological Association (APA, 2020) states that anxiety is an emotion characterized by feelings of fear and the appearance of physical symptoms in the form of tension. Other physical symptoms that will appear are tense muscles, faster breathing patterns and increased heart rate. This emotion will arise when an individual anticipates impending danger, catastrophe or misfortune. According to Windarwati et al (2022), anxiety is the most discussed mental health problem among high school students during the COVID-19 pandemic. Many high school students are found to have an increased risk of experiencing mental health problems, namely psychological distress, worry, loneliness, anxiety, depression, traumatic symptoms, other psychological disorders, suicide risk, sleep disorders, and psychosocial functioning.

The anxiety in students during emergency online learning during the COVID-19 pandemic is very real. The feelings of anxiety and pressure experienced by students are caused by several factors, such as students' incomprehension of the material delivered by the teacher, students' difficulty in completing assignments according to the deadline given by the teacher, the instability of the internet network in the area where students live, various technical obstacles they experience during online learning, and a sense of worry about not being able to follow the next subject matter (Muhyidin, 2022). In addition, Siregar & Nara (2014) added that when students experience anxiety, their learning motivation will also decrease, but on the contrary if the psychological condition of students is good, then their learning motivation tends to also increase. The extent of the contribution of anxiety to learning motivation in upper secondary students in online learning during the COVID-19 pandemic has not been studied before, so this study aims to determine this contribution.

2. Research Methods

This research is designed in the form of quantitative research methods. The dependent variable in this study is learning motivation, which is defined as a drive both from within and outside the student who can provide encouragement and direction to carry out a learning activity to achieve the desired learning goals based on aspects of perseverance in learning, tenacious in the face of difficulties, interest and sharpness of attention in learning, excel in learning, and be independent in learning. Learning motivation is measured by the learning motivation scale developed by researchers referring to aspects of learning motivation proposed by Sardiman (2018). The learning motivation scale has an alpha Cronbach reliability coefficient of 0.940. The higher the student's score, the higher the learning motivation, and the lower the student's score, the lower the learning motivation.

The independent variable in this study was anxiety, which was defined as a signal that alerted to a warning of a threatening danger and allowed someone to take action on the threat based on aspects of the heart, cognitive, somatic, and motor. Anxiety is measured using a disability scale developed by researchers based on aspects of anxiety proposed by Semiun (in Misdeni et al, 2019). The anxiety scale has an alpha Cronbach reliability coefficient of 0.860. The higher the student's score, the higher the anxiety and vice versa the lower the student's score, the lower the anxiety level.

The research population determined in this study is students from high school who attend school in Yogyakarta and take part in online learning during the COVID-19 pandemic. The sample of this study consisted of 80 students. Meanwhile, in sampling, research uses probability sampling techniques, which are sampling techniques that provide equal opportunities for each member of the population to be selected as a sample member. The data obtained in the study will be analyzed statistically using the SPSS application. Meanwhile, data analysis used the product moment correlation technique from Pearson to determine the relationship between the independent variable, namely anxiety and dependent variables, namely learning motivation and also to determine the contribution of anxiety to the learning motivation of high school students in online learning during the COVID-19 pandemic.

3. Results and Discussion
3.1.Data Analysis

The data analysis test in this study uses the product-moment correlation test technique and produces the following data description:

Table 1. Variable Categorization Value

Variable	Category	Frequency	Percentage (%)
Anxiety	Low	3	3.4
	Moderate	33	37.5
	High	52	59.1
Learning motivation	Low	0	0
	Moderate	47	53.4
	High	41	46.6

Source: Primary Data, 2023

Based on Table 1. shows that the anxiety possessed by students tends to fall into the high category. This means that 59.1% of students experience anxiety in facing the COVID-19 pandemic, especially during online learning. Meanwhile, student learning motivation shows that students tend to have moderate learning motivation. This illustrates that 53.4% of students still have learning motivation even though learning is done online.

Table 2. Learning Motivation Scale Normality Test

Variable	Index Normality	Variable	Category
Residual Data	0.476	0.977	Data is normally distributed

Source: Primary Data, 2023

Based on Table 2. Indicates that the significance value of asiymp. *Sig* (2-tailed) of 0.977>0.05, which means the anxiety data is normally distributed.

Table 3. Anxiety Scale Normality Test

Variable	Index Normality	Sig (p)	Information
Residual Data	0.628	0.825	Data is normally distributed

Source: Primary Data, 2023

Based on Table 3, shows the significance value of asiymp. *Sig* (2-tailed) of 0.825>0.05, which means the anxiety data is normally distributed.

Table 4. Linear Test of Learning Motivation and Anxiety Scale

Variable	Linearity		Deviation from Linearity		Information
	F	Sig (p)	F	Sig (p)	
Learning motivation*Anxiety	10,679	0.002	1.271	0.219	Linear

Source: Primary Data, 2023

Based on Table 3. obtained the value of Deviation from Linearity Sig. By 0.219 > 0.05, it can be concluded that there is a significant linear relationship between anxiety variables and learning motivation variables.

Table 4. Hypothesis test

Hypothesis	r	r^2	Sig (p)	Information
Anxiety Learning motivation	-0.320	0.103	,002	Significant

Source: Primary Data, 2023

Based on Table 4. Correlation test using Pearson's Product Moment method, it can be seen that the significant value of 0.002 (p < 0.05) and the correlation coefficient of -0.320 which means that there is a significant negative relationship between anxiety and student learning motivation during online learning, the higher the anxiety, the lower the student's learning motivation; Conversely, the lower the anxiety, the higher the student's learning motivation. The coefficient of determination of 0.103 contributed significantly to the variable anxiety to the decrease in student motivation in online learning by 10.30%.

3.2.Discussion

Online learning in various parts of the world is inevitable due to the impact of the COVID-19 pandemic, where more than 12.2 billion students study outside the classroom (Li & Lalani, 2020). However, many reports show that the implementation of online learning does not run smoothly, even causing anxiety caused by students' incomprehension of the material delivered by the teacher, students' difficulty in completing assignments according to the deadline given by the teacher, the instability of the internet network in the area where students live, various technical obstacles they experience when learning online, and a sense of worry about not being able to follow the next subject matter (Muhyidin, 2022; Oktawirawan, 2020). In addition, anxiety in online learning was proven to be found in respondents in this study, namely 3.4% in the low category, 37.5% medium, and 59.1% high. This means that most respondents experienced difficulties in online learning during the COVID-19 pandemic. The results of this study also corroborate previous research showing that most high school students experience anxiety during the COVID-19 pandemic in moderate to high categories (Al Azzam et al, 2021; Sari and Winingsih, 2021; Windarwati et al, 2022; Darmayanti et al, 2022).

Anxiety is a psychological condition and one of the important elements that become an intrinsic factor that can affect student learning motivation (Ryan & Deci, 2000a). Meanwhile, Kaplan et al (2018) illustrate that anxiety states will be higher associated with libidinal inhibition which Freud viewed as biological anxiety, namely anxiety characterized by worry or fear derived from repressed thoughts or expectations. The desire of students who prefer to learn face-to-face (offline) rather than online learning which cannot be realized due to the situation of the spread of COVID-19 that is still happening, can make this desire also repressed so that it will affect the student's learning motivation. In addition, Siregar and Nara (2014) added that when students experience anxiety, their learning motivation will also

decrease, but on the contrary if the psychological condition of students is good, then their learning motivation tends to also increase.

The results of this study showed a correlation coefficient of -0.320 with a significant value of 0.002 ($p < 0.05$) which means that there is a significant negative relationship between anxiety and student learning motivation in online learning during the COVID-19 pandemic. This means that the higher the anxiety, the lower the student's learning motivation; Conversely, the lower the anxiety, the higher the student's learning motivation. This result also corroborates the findings of Tam et al's research (2021) which shows that the condition of learners in psychological aspects (anxiety) has a significant influence on student learning motivation during online learning. Other findings also show that intrinsic motivation has a large role in strengthening students or weakening students in participating in online learning. This shows that anxiety is one of the psychological aspects that play a role in influencing student learning motivation (Giriansyah & Pujiastuti, 2021).

The findings in this study also corroborate research conducted by Saputra et al (2023), that there is a direct negative influence contributed by anxiety on student learning motivation in mathematics learning. Other results also found that student anxiety had a significant influence on student learning motivation. This is to the results obtained that student anxiety and learning motivation have a significant influence on student learning outcomes where student anxiety and learning motivation have a partial correlation (Putri & Kurniasari, 2020). In other research results, it was also found that the results of the regression correlation test (β) of -0.075 with a significance of 0.00 (<0.05), showed that the higher the motivation to learn, the lower the level of anxiety. Conversely, the lower the motivation, the higher the motivation (Mukhayyaroh & Winta, 2024).

In this study also found a coefficient of determination of 0.103 contributed significantly to the variable anxiety to the variable of learning motivation. This means that anxiety has contributed 10.30% to the learning motivation of high school students during the COVID-19 pandemic. Meanwhile, there are 89.70% of other factors not involved in this study that are predicted to affect student learning motivation. These results suggest that anxiety contributes negatively to learning motivation. Decreased learning motivation can result in disruption of student learning activities (Jamaris, 2015). If students do not have the motivation to learn, the individual can't carry out learning activities (Djamarah, 2015). This opinion is to the respondent's statement, that online learning can be done simultaneously with playing *gadgets,* watching movies, eating, or can be left to sleep. This makes students not focus on receiving the subject matter. As a result, students find it difficult to understand the subject matter which have an impact on obtaining grades that are not optimal. Learning outcomes will be optimal if there is learning motivation. Through learning motivation, students can develop activities and initiatives and can direct and maintain harmony in carrying out learning activities (Sardiman, 2018). In addition, learning motivation is a determining factor for the good and bad of the student learning process, thus impacting the student's learning achievement (Sierra, 2020).

This online learning process also shows a change in educational interaction between teachers and students who are usually face-to-face to screen with the help of online media, so students who are unable to adapt quickly according to the demands of existing learning conditions will result in loss of motivation (Sardiman, 2018). In addition, online learning from home can reduce learning motivation due to family conditions, learning capacity, student conditions, monotonous learning, lack of learning drive, and lack of teacher effort in teaching (Rahmania et al, 2021). From the results of other studies, Izzatunnisa et al (2021) also found factors that reduce student learning motivation during online learning, including; technological capabilities, internet network access connections, learning media used, and student capacity for online learning. As a result, learning motivation in students who take part in online learning amid the COVID-19 pandemic situation is decreasing, which can be seen from the significance value of Mann-Whitney of 0.000 less than 0.05 ($p<0.05$) (Cahyani, 2020).

Based on the description above, this study can provide a better understanding of how anxiety affects student learning motivation. The results can help teachers, researchers, and policymakers to design more targeted educational programs or interventions. For example, it is proven that anxiety turns out to be a significant factor affecting student learning motivation, so schools can develop programs to reduce anxiety especially in the face of difficult situations, such as the COVID-19 pandemic. Despite this, the study also had limitations, researchers only considered one factor that influenced students' learning motivation. There are many other factors, such as goals, learner abilities, learner conditions, learner environment conditions, elements in learners, and teacher efforts in learning learners that can be explored and tested for their effect on upper secondary students' learning motivation in emergencies, such as the COVID-19 pandemic.

4. Conclusion

Based on the analysis of the results and discussion, it can be concluded that there is a significant negative relationship between anxiety and the motivation to learn upper secondary students in online learning. The higher the anxiety, the lower the student's learning motivation; Conversely, the lower the anxiety, the higher the student's learning motivation. In addition, anxiety contributed 10.30% to the motivation of upper secondary students in online learning, while 89.70% was influenced by other factors not included in this study. As a suggestion, factors that affect learning motivation, such as goals, learner abilities, learner conditions, learner environmental conditions, elements in learners, and teacher efforts in learning learners can be explored and studied further in future research. In addition, qualitative research is recommended to be carried out to analyze the psychological dynamics of the formation of upper-secondary students' learning motivation in online learning during the post COVID-19 pandemic.

Reference

Aji, R. H. S. (2020). Dampak Covid-19 pada Pendidikan di Indonesia: Sekolah, Keterampilan, dan Proses Pembelajaran. *SALAM: Jurnal Sosial Dan Budaya Syar-i*, *7*(5). https://doi.org/10.15408/sjsbs.v7i5.15314

Al Azzam, M., Abuhammad, S., Abdalrahim, A., & Hamdan-Mansour, A. M. (2021). Predictors of depression and anxiety among senior High school students during the COVID-19 Pandemic: The context of home quarantine and Online education. The Journal of School Nursing/Journal of School Nursing, 37(4), 241–248. https://doi.org/10.1177/1059840520988548

American Psychological Association. (2020). *APA Dictionary of Psychology.* https://dictionary.apa.org/anxiety

Azzahra, N. (2020). Mengkaji hambatan pembelajaran jarak jauh di Indonesia di masa pandemi Covid-19. In *Center for Indonesian Policy Studies*. https://doi.org/10.35497/309163

Brophy, J.E. (2013). *Motivating students to learn* (3rd ed.). New York, NY: Routledge.

Cahyani, A., Listiana, I. D., & Larasati, S. P. D. (2020). Motivasi Belajar Siswa SMA pada Pembelajaran Daring di Masa Pandemi Covid-19. IQ (Ilmu Al-Qur'an): Jurnal Pendidikan Islam/IQ (Ilmu Al-qur'an), 3(01), 123–140. https://doi.org/10.37542/iq.v3i01.57

Darmayanti, N., Khairani, W., & Ermawan, B. (2022). Gambaran Tingkat Kecemasan Siswa SMA Kelas 3 Dalam Mengikuti Pembelajaran Di Masa Pandemi Covid-19 Di Desa Belah, Pacitan. *Diploma Thesis*. Poltekkes Kemenkes Yogyakarta.

Djamarah, S.B. (2015) *Psikologi Belajar*. Jakarta: Rineka Cipta

Giriansyah, F. E., & Pujiastuti, H. (2021). Pengaruh Kecemasan Matematis dan Motivasi Belajar terhadap Prestasi Belajar Matematika. *JKPM (Jurnal Kajian Pendidikan Matematika)*, 6(2), 307. https://doi.org/10.30998/jkpm.v6i2.9938

Gurumoorthy, R., & Kumar, N. S. (2020). Study of impactful motivational factors to overcome procrastination among engineering students. *Procedia Computer Science*, 172(2019), 709–717. https://doi.org/10.1016/j.procs.2020.05.101

Hartnett, M. (2016). Motivation in online education. In *Springer eBooks*. https://doi.org/10.1007/978-981-10-0700-2

Indonesian Association of Psychiatrists / Perhimpunan Dokter Spesialis Kedokteran Jiwa Indonesia (PDSKJI). (2020). *5 bulan pandemi covid di indonesia.* http://pdskji.org/home

Izzatunnisa, L., Suryanda, A., Kholifah, A.S., Loka, C., Goesvita, P.P.I., Aghata, P.S., & Anggraeni, S. 2021. Motivasi Belajar Siswa Selama Pandemi dalam Proses Belajar dari Rumah. *Jurnal Pendidikan Unimuda Sorong*, Vol. 9, No. 2, 714. https://doi.org/10.36232/pendidikan.v9i2.811

Jamaris, M. (2015). *Orientasi Baru dalam Psikologi Pendidikan*. Bogor: Ghalia Indonesia

Kaplan H.I.,Sadock B.J., & Grebb J.A.(2018). *Sinopsis Psikiatri: Ilmu Pengetahuan Perilaku Psikiatri Klinis*. Jakarta: Binarupa Aksara

Li, C., & Lalani. F. (2020). The COVID-19 pandemic has changed education forever. This is how. *World Economic Forum*. https://www.weforum.org/agenda/ 2020/04/coronavirus- education-global-covid19-online-digital-learning/

Misdeni, M., Syahniar, S., & Marjohan, M. (2019). The effectiveness of rational emotive behavior therapy approach using a group setting to overcome anxiety of students facing examinations. *International Journal of Research in Counseling and Education*, *3*(2), 82–88. https://doi.org/10.24036/0064za0002

Muhyidin, M. (2022). Kecemasan Siswa Sekolah Menengah Atas Saat Pembelajaran Daring di Tengah Pandemi COVID-19. *Discovery*, *7*(1). https://doi.org/10.33752/discovery.v7i1.2419

Mukhayyaroh, L., Winta, M.V.I. (2024). The Influense of Learning Motivation Students Anxiety in Preparing The Final Asignment. *Jurnal Kebidanan, Vol 13 (1), 17-22.* DOI: https://doi.org/10.26714/jk.13.1.2024.17-22

Oktawirawan, D. H. (2020). Faktor Pemicu Kecemasan Siswa dalam Melakukan Pembelajaran Daring di Masa Pandemi Covid-19. *Jurnal Ilmiah Universitas Batanghari Jambi*, *20*(2), 541. https://doi.org/10.33087/jiubj.v20i2.932

Putri, N. M. A., & Kurniasari, I. (2020). Pengaruh Kecemasan Matematika dan Motivasi Belajar terhadap Prokrastinasi Akademik. *Jurnal Penelitian Pendidikan Matematika Dan Sains*, Vol 3(1), 42. https://doi.org/10.26740/jppms.v3n1.p42-45

Rahmania, R., Hendriana, H., & Siddik, R. R. (2021). Konsep Motivasi Belajar Siswa Kelas X Sma Di Masa Pandemi COVID-19. *FOKUS (Kajian Bimbingan Dan Konseling Dalam Pendidikan)*, *4*(4), 309. https://doi.org/10.22460/fokus.v4i4.7210

Ryan, R.M., Schunk, D.H., Usher, E.L., & Carver, C. (2019). *The Oxford handbook of human motivation* (pp. 13–27). Oxford, UK: Oxford University Press.

Ryan, R. M., & Deci, E. L. (2000a). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary Educational Psychology, 25*(1), 54– 67. https://doi.org/10.1006/ceps.1999.1020

Ryan, R. M., & Deci, E. L. (2000b). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist, 55*(1), 68–78. doi:10. 1037/0003-066X.55.1.68.

Saputra, K.A.A., Ratyana, I.G., Parwata, I.G.L.A., Widiartini, N.K. (2023). The Effect of Students' Anxiety, Learning Discipline, and Learning Motivation on Students' Mathematic Learning Outcomes in Vocational High School. *Jurnal Pendidikan dan Pengajaran*, Vol 56 (3), 454-461.DOI. https://doi.org/10.23887/jpp.v56i3.68105

Sardiman, A.M. (2018). *Interaksi dan Motivasi Belajar*. Jakarta: Rajagrafindo Persada

Sari, A.R. & Winingsih, E. (2021). Kecemasan Akademik Siswa Dalam Pembelajaran Daring Di Era Pandemi Covid-19 Di SMA Negeri 2 Kota Mojokerto. Jurnal BK UNESA. Vol 12 (3), 466-487.

Schunk, D. H., & Usher, E. L. (2019). Social cognitive theory and motivation. In R. M. Ryan (Ed.), *The Oxford handbook of human motivation* (2nd ed). Oxford University Press

Schunk, D. H., Meece, J. L., & Pintrich, P. R. (2014). *Motivation in education: Theory, research, and applications* (4th ed.). Boston, MA: Pearson.

Sierra, J. (2020). The potential of simulations for developing multiple learning outcomes: The student perspective. *International Journal of Management Education*, 18(1), 100361. https://doi.org/10.1016/j.ijme.2019.100361

Siregar, E., & Nara, H. (2014). *Teori Belajar dan Pembelajaran*. Bogor: Ghalia Indonesia

Tam, H. lin, Kwok, S. Y. C. L., Hui, A. N. N., Chan, D. K. yin, Leung, C., Leung, J., Lo, H., & Lai, S. (2021). The significance of emotional intelligence to students' learning motivation and academic achievement: A study in Hong Kong with a Confucian heritage. *Children and Youth Services Review*, 121, 105847. https://doi.org/10.1016/j.childyouth.2020.105847

Windarwati, H. D., Lestari, R., Supianto, A. A., Wicaksono, S. A., Ati, N. a. L., Kusumawati, M. W., Humayya, A., & Ekawati, D. (2022). A narrative review into the impact of COVID-19 pandemic on senior high school adolescent mental health. *Journal of Child and Adolescent Psychiatric Nursing*, *35*(3), 206–217. https://doi.org/10.1111/jcap.12370