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The Impact of Family Environment and Learning Independence on Learning Outcomes through Learning Motivation

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ABSTRACT

This study aims to analyze the impact of family environment and learning independence on student learning outcomes through learning motivation at SMKN 1 Tombariri using path analysis. A quantitative approach was used in this study with a survey method to collect data from 66 students through a questionnaire consisting of family environment variables, learning independence, learning motivation, and learning outcomes. Data were analyzed using path analysis techniques to identify direct and indirect relationships between the variables studied. The results showed that the family environment had a significant effect on student learning outcomes through learning motivation. Parental support in the form of attention, the formation of good learning habits, and the provision of learning facilities at home increased student motivation which ultimately had an impact on achieving better learning outcomes. In addition, learning independence also had a significant effect on student learning outcomes through learning motivation. Students who have the ability to learn independently, manage time, and develop learning strategies, show higher motivation, which leads to more optimal learning outcomes. Overall, path analysis shows that the family environment, learning independence, and learning motivation are interrelated and have a direct and indirect effect on student learning outcomes. This finding confirms the importance of synergy between these factors in improving student learning outcomes at SMKN 1 Tombariri.

Keywords: Family Environment, Learning Independence and Learning Outcomes

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1. INTRODUCTION

Education is the main pillar in building quality human resources in the challenging era of globalization. In the national education system, learning success is determined by the extent to which students achieve optimal learning outcomes as a reflection of the process of mastering predetermined competencies. Learning outcomes according to Sudjana (2017) are the abilities possessed by students after receiving learning experiences. Therefore, various factors that influence learning outcomes need special attention.

In general, factors that influence learning outcomes are divided into two groups, namely internal factors and external factors. Internal factors include psychological aspects of students such as learning motivation and learning independence, while external factors include the surrounding environment, especially the family environment. The family environment plays an important role as the first and main place for children to obtain learning and basic life values. Parents who care, provide moral support, and provide learning facilities at home can increase children's enthusiasm for learning (Wahyuni & Rachmawati, 2021). Conversely, family conditions that are not conducive, lack attention, or have economic limitations can reduce students' academic achievement (Yusuf, 2020).

Learning independence is also an important element in supporting student learning outcomes. Students who have learning independence are able to set learning goals, manage time, and evaluate their learning process and outcomes independently (Suryani & Hidayat, 2020). In this case, students do not only depend on teachers, but actively build their own knowledge. However, neither the family environment nor learning independence always have a direct impact on learning outcomes. Learning motivation acts as a mediating factor that strengthens the influence of both variables on students' academic achievement (Uno, 2020).

Learning motivation is an internal or external drive within students that fosters a desire to learn. According to Ryan and Deci (2000), students who have high learning motivation will show consistent effort, high interest, and perseverance in completing tasks. In the context of education in Indonesia,

learning motivation is often a problem, especially at the Vocational High School (SMK) level, which tends to face additional challenges such as work readiness and limited learning facilities.

This condition is also seen in SMKN 1 Tombariri, where most students have not achieved the Minimum Completion Criteria (KKM) in various subjects, especially productive subjects. Based on academic data for 2024/2025, around 45% of grade XI students did not achieve the KKM score in the odd semester exam. Based on the results of initial observations, it was found that this low achievement was related to minimal learning motivation, lack of family involvement in the child's education process, and weak student independence in managing the learning process.

Several previous studies have highlighted the relationship between family environment, learning independence, learning motivation, and learning outcomes. Fitriani (2022) found that family environment has a positive effect on motivation and learning achievement of high school students. Research by Rahmat and Putra (2021) revealed that learning independence has a significant relationship with learning outcomes of junior high school students. Meanwhile, Wulandari and Ningsih (2022) showed that learning motivation is a strong mediating variable in the relationship between social environment and learning outcomes of vocational high school students. However, these studies are generally separate and have not combined the four variables in one model.

This study has novelty by testing a structural model involving family environment and learning independence as independent variables, learning motivation as a mediating variable, and learning outcomes as dependent variables, in the context of vocational high school students in rural areas. There are not many studies that specifically examine this complex relationship in the vocational high school environment, especially in areas such as Tombariri which have their own social and geographical characteristics. Therefore, this study is important to contribute to strengthening theoretical models and educational practices in an effort to improve the quality of student learning outcomes.

2. RESEARCH METHOD

This study uses a quantitative approach with the explanatory research method because it aims to explain the causal relationship between independent variables (family environment and learning independence), mediating variables (learning motivation), and attachment variables (learning outcomes) in students of SMKN 1 Tombariri. The quantitative approach was chosen because it is appropriate for testing hypotheses that have been formulated based on theories and previous research results and allows statistical data processing (Sugiyono, 2022).

The population in this study was all 11th grade students at SMKN 1 Tombariri in the 2024/2025 academic year totaling 120 students. The sampling technique used proportional random sampling to ensure balanced representation from each department. Based on the Isaac and Michael table for a population of 92 people at a 5% error rate, a minimum sample size of 65 students was obtained. This sample is considered representative enough to draw statistically valid conclusions (Creswell & Creswell, 2018).

The data collection technique was carried out by distributing a previously validated closed questionnaire. The instrument was compiled using a five-point Likert scale, ranging from "Strongly Disagree" to "Strongly Agree". The family environment variable was measured based on indicators of communication, parental attention, and the availability of learning facilities at home (Wahyuni & Rachmawati, 2021). The learning independence variable was measured through indicators of learning planning, learning initiative, and self-evaluation (Suryani & Hidayat, 2020). Learning motivation was assessed based on self-determination theory which includes intrinsic and extrinsic motivation (Ryan & Deci, 2000), while learning outcomes were taken from students' semester grade data obtained from homeroom teachers. Before being used for data collection, validity and reliability tests were carried out first. The validity test of the instrument was carried out using the Pearson Product Moment correlation technique, and was declared valid if the calculated r value > r table. The reliability test was carried out using Cronbach Alpha, with an α value ≥ 0.7 as the limit of reliable instrument provisions (Arikunto, 2019).

The data analysis technique used in this study is path analysis which allows researchers to analyze the direct and indirect effects between variables. The analysis process was carried out using Mplus software version 8, which is known to be effective in testing structural relationship models. To test the mediation effect of learning motivation, a bootstrapping approach of 5000 samples was used at a 95%

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confidence interval. The mediation effect is said to be significant if the confidence interval does not cross zero (Hayes, 2013). This procedure was chosen because it is more accurate in estimating indirect effects than conventional methods such as the Sobel test. Before conducting path analysis, a classical assumption test was first conducted to ensure the feasibility of the data. The normality test was conducted using Kolmogorov-Smirnov, multicollinearity was assessed based on the VIF value <10, and the heteroscedasticity test was conducted using the Glejser method. All of these assumption tests are important to ensure that the data analyzed meets the requirements of linear regression and does not produce bias (Gujarati & Porter, 2009).

3. RESULTS AND DISCUSSION

A. Results

1. Outer Model Evaluation (Measurement Model)

a. Convergent Validity

Convergent validity is part of the measurement model (measurement model) which in SEM-PLS is usually referred to as the outer model while in covariance-based SEM it is called confirmatory factor analysis (CFA). There are two criteria for assessing whether the outer model (measurement model) meets the convergent validity requirements for reflective constructs, namely (1) the loading must be above 0.7 and (2) the p value is significant (<0.05). However, in some cases, the loading requirement above 0.7 is often not met, especially for newly developed questionnaires. Therefore, loadings between 0.40-0.70 must still be considered to be maintained**.**

Indicators with loadings below 0.40 should be removed from the model. However, for indicators with loadings between 0.40 and 0.70, we should analyze the impact of the decision to remove the indicator on the average variance extracted (AVE) and composite reliability. We can remove indicators with loadings between 0.40 and 0.70 if the indicator can increase the average variance extracted (AVE) and composite reliability above its threshold. The threshold value for AVE is 0.50 and composite reliability is 0.7. Another consideration in removing indicators is the impact on the content validity of the construct. Indicators with small loadings are sometimes retained because they contribute to the content validity of the construct. Figure 4.1 presents the outer loading values for each indicator.

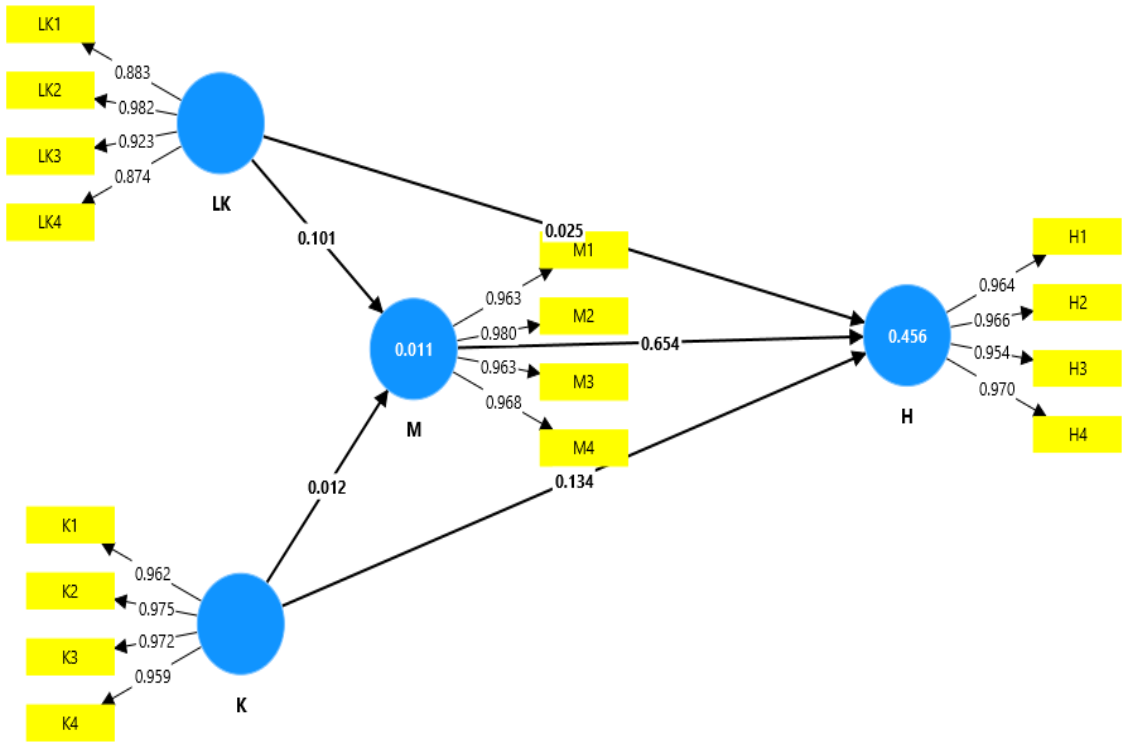


Fig 1. Outer Loading Values

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From the table above, it can be seen that the loading factor value of all statement items is >0.70, so it is concluded that all statement items are convergently valid. Furthermore, validity testing is carried out based on the average variance extracted (AVE) value, reliability based on composite reliability (CR) and Cronbach's alpha (CA).

b. Discriminant Validity

Table 1 Discriminant Validity Test: Fornell & Larcker

	Learning outcomes	Learning Independence	Family Environment	Motivation to learn
Learning outcomes	0.963			
Learning Independence	0.155	0.967		
Family Environment	0.110	0.133	0.916	
Motivation to learn	0.060	0.026	0.103	0.969

Based on the table above, the AVE root value for each variable is > correlation between constructs with other constructs, so it can be concluded that all variables are declared valid discriminants.

c. Reliability Test

Composite Reliability is used in the Structural Equation Modeling (SEM) model, especially in the Partial Least Squares (PLS) method. CR assesses the overall construct reliability by considering the indicator weights on the latent variables. While Cronbach's Alpha measures the internal reliability of an instrument based on the correlation between items in one variable. The higher the alpha value, the more consistent the items in the measurement instrument.

Table 2. Reliability Testing based on Composite Reliability (CR) and Cronbach's Alpha (CA)

	Cronbach's alpha	Composite reliability (rho_c)
Learning outcomes	0.974	0.981
Learning Independence	0.977	0.983
Family Environment	0.955	0.954
Motivation to learn	0.978	0.984

CR and CA ≥ 0.70, the instrument has good reliability. From the table above, the Cronbach's alpha and Composite reliability values of all variables are > 0.70, so all variables are reliable.

2. Structural Model Evaluation Results (Inner Model)

In Structural Equation Modeling (SEM), structural models are used to test causal relationships between latent variables. One important measure in evaluating a structural model is R-Square (R^2), which shows how much the independent variables can explain the dependent variable.

Table 3. Coefficient of Determination Test

	R-square	R-square adjusted
Learning outcomes	0.456	0.429
Motivation to learn	0.611	0.721

The adjusted R-square value of the learning motivation variable is 0.721, indicating that the family environment and learning independence variables are able to explain motivation by 72.1%. So it can be concluded that the model is considered moderate. While the adjusted R-square value of teacher innovative behavior is 0.429, indicating that the family environment, learning independence and learning motivation variables are able to explain learning outcomes by 42.9%.

3. Hypothesis Testing

Table 4. Path Coefficient Test & Significance of Influence

Path	Path Koefisien	T statistics	P values
Family Environment -> Motivation to learn	0.457	4.644	0.019

Learning Independence -> Motivation to learn	0.234	3.092	0.026
Motivation to learn -> Learning outcomes	0.525	5.217	0.000
Family Environment -> Learning outcomes	0.113	6.218	0.028
Learning Independence -> Learning outcomes	0.390	5.492	0.036
Family Environment -> Motivation to learn -> Learning outcomes	0.406	7.623	0.033
Learning Independence -> Motivation to learn -> Learning outcomes	0.291	6.089	0.029

Based on the results in Table 4 the following results were obtained:

1) Family environment has a positive effect on learning motivation, with a coefficient value = 0.157, and is significant, with T-Statistics = 4.644 > 2.00 and P-Values = 0.019 < 0.05 (Hypothesis Accepted).
2) Learning independence has a positive effect on learning motivation, with a coefficient value = 0.234, and is significant, with T-Statistics = 3.092 > 2.00 and P-Values = 0.026 < 0.05 (Hypothesis Accepted).
3) Learning motivation has a positive effect on learning outcomes, with a coefficient value = 0.525, and is significant, with T-Statistics = 5.217 > 2.00 and P-Values = 0.000 < 0.05 (Hypothesis Accepted).
4) Family environment has a positive effect on learning outcomes, with a coefficient value = 0.113, and is significant, with T-Statistics = 6.218 > 2.00 and P-Values = 0.028 < 0.05 (Hypothesis Accepted).
5) Learning independence has a positive effect on learning outcomes, with a coefficient value = 0.390, and is significant, with T-Statistics = 5.492 > 2.00 and P-Values = 0.036 < 0.05 (Hypothesis Accepted).
6) Family environment has a positive effect on learning outcomes through learning motivation, with a coefficient value = 0.406, and is significant, with T-Statistics = 7.623 > 2.00 and P-Values = 0.033 < 0.05 (Hypothesis Accepted).
7) Learning independence has a positive effect on learning outcomes through learning motivation, with a coefficient value = 0.291, and is significant, with T-Statistics = 6.089 > 2.00 and P-Values = 0.029 < 0.05 (Hypothesis Accepted).

B. Discussion

1) The Influence of Family Environment on Student Learning Motivation

This study found that the family environment has a significant influence on students' learning motivation at SMKN 1 Tombariri. A supportive family environment, such as parental attention, involvement in learning activities, open communication, and the provision of adequate learning facilities, has been proven to be able to encourage increased enthusiasm and willingness of students to learn. Students who come from families with a positive atmosphere generally show higher enthusiasm in participating in the learning process. They are more confident, have clear learning goals, and show perseverance in completing school assignments. This finding strengthens the view that the family is the first and foremost environment in shaping the character and motivation of students to develop academically.

Based on observations and interviews conducted at SMKN 1 Tombariri, it was found that the family environment plays an important role in shaping students' learning motivation. Students who come from families with supportive and caring parenting patterns generally show a high enthusiasm for learning. They are more organized in doing assignments, actively participate in learning activities, and have clear academic goals. On the other hand, students who come from families with less supportive conditions such as minimal parental attention, disharmony in the household, or low parental involvement in education tend to show weak learning motivation. This can be seen from the low attendance of students in class, lack of participation in discussions, and lack of initiative to complete assignments independently.

The results of this study are supported by research conducted Nurbayan, et al. (2024), relationships or relationships between family members are also needed for children to support the learning process, if parents do not have a good relationship with their children, such as parents who are too strict in educating and indifferent to children's learning, then it will cause children's enthusiasm and

motivation to learn to decrease. Agustina & Kurniawan (2020) stated that students' learning motivation is influenced by the family environment. Students will be more motivated to learn when they get positive support from their families because students will feel appreciated and cared for.

2) The Influence of Learning Independence on Learning Motivation

The results of the study showed that learning independence has a significant influence on students' learning motivation. Students who have independence in learning tend to show a strong internal drive to achieve their academic goals. They are better able to manage their study time, take the initiative in understanding the material, and set learning targets without having to always rely on external encouragement, such as teachers or parents**.**

Facts on the ground support this finding. The results of interviews with teachers at SMKN 1 Tombariri show that students who are able to manage their own study time and do not wait for instructions continuously are generally more enthusiastic in participating in learning. They not only complete assignments on time, but also look for additional references outside the material given in class. Several teachers stated that independent students tend to be more proactive in asking questions and discussing, which indicates a high motivation to learn from within themselves. On the other hand, students who do not yet have independence in learning often show a passive attitude. They only learn when asked, rarely ask questions, and show a high dependence on the presence of teachers or friends. This condition makes their learning motivation low, because it does not grow from self-awareness, but rather because of external factors.

This finding is in line with previous research by Yuliana and Wibowo (2021), which showed that students with a high level of learning independence have stronger learning motivation compared to students who tend to rely on others. This study also emphasizes that strengthening the independence aspect can be an important strategy in increasing learning motivation in a sustainable manner. Learning independence is said to have an influence on learning motivation and the coefficient has a positive value, resulting in the better learning independence, the better learning motivation will be (Khotimah & Eko, 2021). Setiaji et al (2021) stated that independent learning can influence learning motivation.

3) The Influence of Learning Motivation on Learning Outcomes

Learning motivation is one of the internal factors that has a strong influence on student learning outcomes. Based on the results of research conducted at SMKN 1 Tombariri, it was found that students with high levels of learning motivation tend to have better learning outcomes compared to students who are less motivated. High motivation makes students more focused, consistent in learning, and better prepared to face academic challenges. Theoretically, learning motivation encourages students to set goals, direct attention and effort to learning activities, and maintain learning behavior over a certain period of time (Uno, 2019). With strong motivation, students will be more active in understanding the material, doing assignments optimally, and showing tenacity in facing learning difficulties. This certainly has a positive impact on their academic achievement.

Based on the observation results, students who show high learning enthusiasm are usually more disciplined in doing assignments, are active in the learning process, and have a strong interest in the subject matter. They also tend to have regular study habits at home and do not delay schoolwork. This can be seen from the consistency of the academic grades they achieve, which are generally in the satisfactory category or exceed the Minimum Completion Criteria (KKM). On the other hand, students who lack learning motivation show the opposite behavior. They are more often late in submitting assignments, are less enthusiastic in following lessons, and rarely show initiative to understand difficult material. When asked about their academic ideals or goals, these students also appear to not have a clear direction, which reflects a weak internal drive to learn. As a result, their learning outcomes often do not meet the KKM.

The results of this study are supported by research conducted by Saragih et al. (2023), learning motivation significantly affects social studies learning outcomes. Students who have high motivation in learning social studies will produce better learning outcomes and understand social studies concepts more completely. This study shows that learning motivation is an important factor in determining social studies learning outcomes, and this strategy can be used to describe learning motivation in the field of social studies.

4) The Influence of Family Environment on Learning Outcomes

The results of this study indicate that the family environment has a significant effect on student learning outcomes. This is shown through the results of quantitative data analysis which reveal a positive correlation between family environment variables and learning outcomes. In other words, the more conducive a student's family environment is, the higher the tendency for their learning outcomes. The family environment includes several aspects such as parental support, family interactions, socio-economic conditions, and learning habits at home. In this study, it was found that students who received emotional support and motivation from their parents tended to have a higher enthusiasm for learning. Parents who are involved in their children's learning activities, such as helping with homework or providing special time for discussion, contribute to improving students' understanding of the lessons.

The level of education and occupation of parents also contribute to student learning outcomes. Parents with a higher educational background tend to understand the importance of education better and are able to provide adequate tutoring. They also tend to have higher academic expectations for their children, which indirectly motivates students to study harder. This study is also in line with several previous studies. For example, research by Susanti & Haryanto (2022) found that direct parental involvement in the child's educational process is closely related to academic achievement. Likewise, Putra (2021) revealed that more stable family economic factors allow students to have access to better learning resources, such as books, the internet, and additional tutoring. The results of this research are in accordance with Chulsum (2017) who stated that there is a significant positive impact of the family environment on learning outcomes.

5) The Influence of Learning Independence on Learning Outcomes

The results of the study show that learning independence has a significant influence on student learning outcomes. Students who have a high level of learning independence tend to get better academic grades compared to students who tend to rely on help from teachers or peers. This shows that students who are able to plan, manage time, and complete assignments independently have an advantage in mastering the subject matter. Facts in the field show that students who actively make their own study schedules and consistently work on practice questions independently succeed in achieving exam scores above the class average. In addition, the results of observations in the field strengthen the quantitative data, where students who demonstrate independent learning habits, such as looking for additional references, taking notes on important material, and reflecting on previous exam results, appear more prepared to face learning evaluations. Conversely, students who have a high dependence on teachers, are not used to studying without guidance, and are less disciplined in managing study time show less than optimal results.

Although most of the data supports a positive relationship between learning independence and learning outcomes, there were some respondents in this study who had a high level of learning independence but their learning outcomes were not optimal. This shows that in addition to independence, other factors such as cognitive ability, environmental support, psychological conditions, and learning methods also influence students' academic achievement.

The results of this study are supported by the results of research conducted by Hidayat (2019) that learning independence is very necessary for students' needs for their learning achievements because with learning independence students are able to have a sense of responsibility in their learning and an attitude of initiative, creativity and activeness in learning will emerge without depending on others. Handayani & Hidayat, (2018) that there is a significant positive influence of learning independence on mathematics learning outcomes. Independence is something that plays an important role in learning, especially mathematics learning. This is because learning independence is the ability of students to carry out learning activities with their own motivation and without coercion.

6) The Influence of Family Environment on Learning Outcomes Through Learning Motivation

The results of the study showed that the family environment indirectly influences student learning outcomes through learning motivation. This means that a conducive family environment characterized by emotional support, attention to education, and positive communication can increase students' learning motivation, which then has an impact on their academic achievement. Quantitative data shows that students who come from families with high attention to the learning process tend to have strong

intrinsic learning motivation, such as the desire to excel and a sense of responsibility for school assignments.

Facts on the ground support these results. In interviews with several students, it was found that those who have parents who are actively involved in education (for example by reminding them of study time, asking about their grades, or providing learning facilities) feel more enthusiastic about learning. In contrast, students who come from families with low involvement show a lack of motivation to learn, feel that learning is only a school obligation, and do not have clear academic targets. This shows that the role of the family is not only in physical aspects such as providing learning needs, but also in shaping attitudes and learning motivation.

The results of this study are in line with the results of Prabasari & Subowo's research (2017) which explains that there is a significant positive influence between parenting patterns of parents to students on learning achievement through learning motivation as an intervening variable. And Tirtiana (2013) states that there is an impact between the family environment on learning outcomes through learning motivation.

7) The Influence of Learning Independence on Learning Outcomes Through Learning Motivation

The results of the study indicate that learning independence has an indirect effect on student learning outcomes through learning motivation as a mediating variable. This means that students who are independent in learning tend to have higher learning motivation, and this motivation then drives them to achieve better learning outcomes. Statistical data supports that students with a high level of independence also show high motivation scores, and ultimately have significantly better academic achievements compared to students who are not independent.

Facts in the field strengthen these findings. In observations and interviews, it was found that students who are accustomed to designing their own study schedules, looking for additional learning resources without being asked by teachers, and evaluating their learning outcomes independently, feel more confident and motivated to continue to improve their achievements. They tend to set personal learning targets and feel satisfied if they succeed in achieving them. Conversely, students who are still dependent on teachers or friends in the learning process often show a lack of initiative and low motivation, which has an impact on less than optimal learning outcomes.

The results of this study are supported by the results of research Kharisma Hidayat (2014) The results of this study are supported by the results of Kharisma Hidayat's research (2014) which states that the variable of learning independence has an indirect influence on learning outcomes through learning motivation.

4. CONCLUSION

Based on the research results, it can be concluded that this study shows that the family environment has a positive effect on students' learning motivation at SMKN 1 Tombariri. A supportive family, with a parenting pattern that cares about children's education, has a positive impact on students' learning motivation. An environment that pays attention to students' academic needs and provides adequate learning facilities will create a conducive atmosphere, which in turn increases students' enthusiasm and drive to learn better.

Students' learning independence also plays an important role in increasing their learning motivation. Students who can manage their own study time, plan academic activities, and find additional learning resources without relying on others tend to have higher motivation. This independence encourages students to feel more responsible for their learning process, which has an impact on strengthening their internal motivation to achieve higher achievements.

Student learning motivation has been shown to have a direct influence on their learning outcomes. Students who have high learning motivation, both intrinsic and extrinsic motivation, show better learning outcomes. Motivation is the main driving force that directs students to be active in the learning process, more committed to completing tasks, and trying to achieve their academic goals.

This study shows that the family environment has a significant influence on student learning outcomes. A supportive family environment, whether in the form of parental attention to education, the formation of good learning habits, or the provision of adequate learning facilities, can improve student

learning outcomes. Students who receive strong support from their families tend to have higher motivation and enthusiasm for learning, which leads to better academic achievement.

Learning independence has a positive influence on student learning outcomes. Students who are able to organize and manage their learning time independently, plan learning activities, and find solutions to problems faced during learning tend to achieve better results. Learning independence allows students to be more responsible for their learning process, which in turn encourages them to try harder and achieve optimal academic results.

The family environment plays an important role in indirectly influencing student learning outcomes, through learning motivation. When the family environment supports by providing attention and encouragement to learn, students become more motivated. This high motivation then contributes directly to achieving optimal learning outcomes.

Learning independence also has an indirect effect on learning outcomes through learning motivation. Students who are able to learn independently will develop the motivation to continue to progress, and feel more confident in achieving academic goals. This learning independence encourages students to try harder in learning, which ultimately results in better academic achievement.

REFERENCES

Agustina, M. T., & Kurniawan, D. A. (2020). Motivasi belajar mahasiswa di masa pandemi Covid-19. *Jurnal Psikologi Perseptual*, 5(2), 120–128.

Saragih, A. Y. (2023). Pengaruh motivasi belajar terhadap hasil belajar IPS. *Didaktik: Jurnal Ilmiah PGSD FKIP Universitas Mandiri*, 9(2), 145–156.

Chulsum, U. (2017). Pengaruh lingkungan keluarga, kedisiplinan siswa, dan motivasi belajar terhadap hasil belajar ekonomi siswa di SMA Negeri 7 Surabaya. *Jurnal Ekonomi Pendidikan dan Kewirausahaan*, 5(1), 5–20.

Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). Sage.

Fitriani, N. (2022). Pengaruh lingkungan keluarga terhadap motivasi dan hasil belajar siswa SMA. *Jurnal Pendidikan dan Pembelajaran*, 15(2), 133–140.

Garrison, D. R. (1997). Self-directed learning: Toward a comprehensive model. *Adult Education Quarterly*, 48(1), 18–33.

Gujarati, D. N., & Porter, D. C. (2009). *Basic econometrics* (5th ed.). McGraw-Hill.

Handayani, N., & Hidayat, F. (2018). Hubungan kemandirian terhadap hasil belajar siswa mata pelajaran matematika di kelas X SMK Kota Cimahi. *Jurnal Pendidikan Matematika*, 1(2), 1–8.

Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. Guilford Press.

Hidayat, M. A. (2019). Pengaruh kemandirian belajar siswa terhadap prestasi belajar matematika. *Jurnal Pendidikan Matematika*, 4(2), 809–817.

Hooper, D., Coughlan, J., & Mullen, M. R. (2008). Structural equation modelling: Guidelines for determining model fit. *Electronic Journal of Business Research Methods*, 6(1), 53–60.

Hidayat, K. (2014). Motivasi belajar sebagai mediasi pengaruh kemandirian belajar dan lingkungan keluarga terhadap hasil belajar mata pelajaran produktif siswa kelas XI AP SMK N 2 Magelang. *Economic Education Analysis Journal*, 3(2), 145–156.

Khotimah, N. V. K., & Wahjudi, E. (2021). Pengaruh kemandirian dan gaya belajar terhadap hasil belajar dengan variabel mediasi motivasi belajar. *Jurnal Pendidikan Akuntansi (JPAK)*, 9(2), 101–112.

Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). McGraw-Hill.

Nurbayan, S. T., & tim penulis. (2024). Pengaruh lingkungan keluarga terhadap motivasi belajar siswa di SMAN 3 Woja Kabupaten Dompu. *Edusociata: Jurnal Pendidikan Sosiologi*, 7(2), 155–166.

Prabasari, B., & Subowo, S. (2017). Pengaruh pola asuh orang tua dan gaya belajar terhadap prestasi belajar melalui motivasi belajar sebagai variabel intervening. *Economic Education Analysis Journal*, 6(2), 549–558.

Putra, Y. D. (2021). Pengaruh kondisi sosial ekonomi keluarga terhadap hasil belajar siswa SMP. *Jurnal Ilmu Pendidikan Sosial*, 15(2), 101–110.

Rahmat, A., & Putra, R. (2021). Kemandirian belajar dan implikasinya terhadap prestasi akademik siswa SMP. *Jurnal Psikologi Pendidikan Indonesia*, 10(1), 23–30.

Ryan, R. M., & Deci, E. L. (2000). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary Educational Psychology*, 25(1), 54–67.

Setiaji, K., Muktiningsih, S., & Farliana, N. (2021). Pengaruh kemandirian belajar terhadap kemampuan berpikir kritis dengan motivasi belajar sebagai variabel intervening. *JEKPEND (Jurnal Ekonomi dan Pendidikan)*, 4(1), 56–63.

Sudjana, N. (2017). *Penilaian hasil proses belajar mengajar*. Remaja Rosdakarya.

Sugiyono. (2022). *Metode penelitian kuantitatif, kualitatif, dan R&D*. Alfabeta.

Suryani, T., & Hidayat, R. (2020). Pengaruh kemandirian belajar terhadap prestasi belajar siswa. *Jurnal Ilmu Pendidikan*, 8(3), 115–124.

Susanti, R., & Haryanto, D. (2022). Pengaruh interaksi keluarga terhadap motivasi belajar siswa SMP di kota Surakarta. *Jurnal Pendidikan Karakter*, 13(1), 13–25.

Tirtiana, C. P. (2013). Pengaruh kreativitas belajar, penggunaan media pembelajaran PowerPoint, dan lingkungan keluarga terhadap hasil belajar mata pelajaran akuntansi. *Economic Education Analysis Journal*, 2(2), 15–23.

Uno, H. B. (2020). *Teori motivasi dan pengukurannya: Analisis di bidang pendidikan*. Bumi Aksara.

Wahyuni, L., & Rachmawati, D. (2021). Peran lingkungan keluarga terhadap motivasi belajar anak. *Jurnal Pendidikan Karakter*, 12(1), 88–97.

Wulandari, E., & Ningsih, S. (2022). Motivasi sebagai mediasi antara lingkungan sosial dan hasil belajar pada siswa SMK. *Jurnal Manajemen Pendidikan*, 14(1), 45–53.

Yuliana, D., & Wibowo, M. E. (2021). Kemandirian belajar dan motivasi belajar siswa SMA pada masa pembelajaran daring. *Jurnal Pendidikan dan Pembelajaran*, 28(1), 34–41.

Yusuf, S. (2020). *Psikologi perkembangan anak dan remaja*. Remaja Rosdakarya.