



Journal of Educational Sciences

Journal homepage: <https://jes.ejournal.unri.ac.id/index.php/JES>



P-ISSN
2581-1657
E-ISSN
2581-2203

Effect of Family Environment and Education Costs on Student Achievement with Interest in Reading as an Intervening Variable

Sutriayu, Makhdalena, Sumarno

Economic Education Studies Program, Universitas Riau, Pekanbaru, 28293, Indonesia

ARTICLE INFO

Article history:

Received: 07 July 2019

Revised: 12 Oct 2019

Accepted: 04 Jan 2020

Published online: 24 Jan 2020

Keywords:

Family Environment

Education Costs

Interest in Reading

Learning Achievement

ABSTRACT

Learning entrepreneurship is very important for special students in vocational high schools (SMK). However, there are still many students getting entrepreneurial grades under the standard (KKM). It can be said that student achievement in entrepreneurship subjects is low, this is inseparable from the factors that influence learning achievement such as: family environment, education costs, and reading interest. The research objective is to look at the effect of family environment and educational costs on student achievement both simultaneously and partially and to see the influence of family environment, education costs, and reading interest on learning achievement both simultaneously and partially. The population in this study was the entire class XI Pharmacy Pharmacy Ikasari Pekanbaru with 249 students. The sampling technique used Simple Random Sampling with a sample size of 153 students. The data in this study were secondary data obtained from school documents in the form of student daily test scores and primary data obtained from questionnaires filled out by students. The results showed that family environment and education costs had a positive and significant effect on learning achievement both 43.4% simultaneously and partially with a large coefficient of peht 43.6% and 39.7% and family environment, education costs, and reading interest positive and significant effect both simultaneously at 56.3% and partial with a peht coefficient of 16.5%, 13.2%, and 57.3%.

© 2020 JES. All rights reserved.

1. Introduction

Education is an effort to develop the potential of human resources through learning activities. Whereas according to Erwiza et al. (2019) education plays an

* Corresponding author. Tel./Fax.: +6282284137410
E-mail: sutriayusutriayu@yahoo.com

important role in life because education can encourage the advancement of a nation. To support this, quality education is needed. The quality of an education can be seen from the level of student achievement. Learning achievement is a proof of the extent to which the child's success with the material received (Slameto, 2015). Learning achievement can also be interpreted as mastery of knowledge from the lessons received or the ability to master the subjects given by the teacher (Mulyono, 2010). The level of learning achievement is determined from the results obtained by a person through the learning process by conducting oral and written tests (Junita et al., 2014).

The level of learning achievement can be seen from student learning outcomes and measured by numbers. Final semester exam (UAS) even TA. 2017/2018 class XI at Faramasi Pekanbaru Vocational School shows that the level of student achievement in entrepreneurship subjects is still low, with many students getting grades below the KKM (minimum completeness criteria) of 77% and students achieving KKM of 23%.

The low learning achievement obtained by students can be influenced by several factors, including family environment. Munib (2007) states the family is the first and foremost environment, because before humans got to know other educational institutions this institution first existed. The family can also be interpreted as the oldest, first and foremost educational institution experienced by children (Hasbullah, 2010). While the family environment is a condition that can affect a person's behavior because the family is the environment that is first and foremost for individual development (Jamil et al., 2014). The place where the child grows and develops so that it can influence the personality and support the child's growth is the family environment (Nurmaliza et al., 2018). Based on these statements it can be concluded that the family environment can provide encouragement and motivation to children in increasing curiosity so that the child's achievement becomes higher.

Furthermore, the thing that affects learning achievement is the cost of education. The cost of education is defined as the amount of money generated and spent on various educational needs (Fattah, 2012). Government Regulation (PP) No. 48 of 2008 Article 3 explains that education costs include: education unit costs (investment costs and operational costs) the cost of organizing and / or managing education (investment costs and operational costs), and personal costs of students (personal). Based on the statement above, education funding consists of investment costs, operational costs, and personal costs. In this study, researchers focus on personal costs (personal). Personal costs play an important role in supporting the improvement of students' learning achievement. This opinion is supported by the results of research (Mawarnia et al., 2017).

Aside from the family environment and the cost of education, what can affect student achievement is student interest in reading. Yarnefi et al (2019) states that interest is a feeling of pleasure that can encourage someone to do the activities they do. Interest in reading is one's interest in reading activities carried out as part of learning activities (Retariandalas, 2017). The higher interest in reading

someone will be higher insight and knowledge possessed by that person. If reading is done routinely it will help students improve their performance in school. Assumptions are strengthened by research (Kusuma et al., 2018).

The reading interest in this research is an intervening variable. Intervening variables are variables that theoretically affect the relationship between the independent variable and the dependent variable that is not directly and cannot be observed and measured. In this study, the intervening variable is interest in reading where the variable of the family environment and the cost of education affect the learning achievement through student interest in reading.

The objectives of this study are: (1) To determine the effect of family environment and education costs on reading interest both simultaneously and partially; (2) To determine the influence of the family environment, educational costs, and reading interest both simultaneously and partially.

2. Methodology

This type of research was quantitative descriptive. The objects in this study were family environment (X_1), education costs (X_2), reading interest (X_3), and learning achievement (Y). The population in this study were all XI grades of SMK Pharmacy Ikasari Pekanbaru, totaling 249 students. The research sampling technique used random sampling. Determination of sampling from the population used slovin formula suppressor, so the number of samples in this study were 153 students. Types and sources of data in this study were secondary data for learning achievement variables obtained from school documents in the form of student daily test scores and primary data for family environment variables, education costs, and reading interest in the form of questionnaires filled out by students who were previously tested for validity and reliability. Data analysis techniques in this study used path analysis using SPSS assistance. The structure of path analysis in this study can be seen in Figure 1.

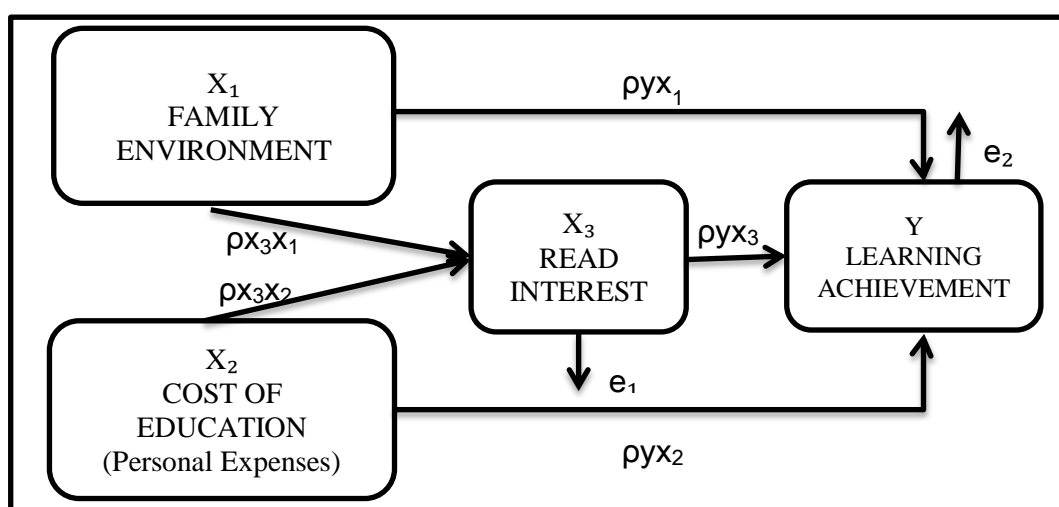


Figure 1. Complete Structure of Research

Based on Figure 1, this study has two structures:

Structure 1

There is an influence of the family environment, the cost of education on student achievement both simultaneously and partially. For more details can be seen in Figure 2.

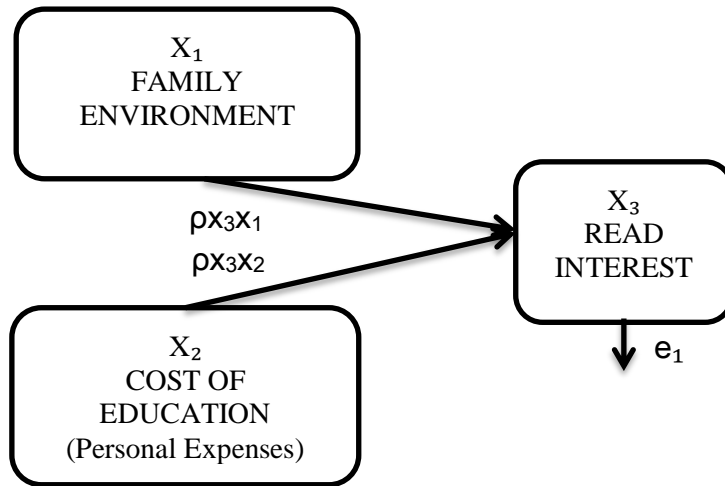


Figure 2. Structure 1

Based on Figure 2, the equation can be made as follows:

$$x_3 = \rho_{x_3x_1}x_1 + \rho_{x_3x_2}x_2 + e_1$$

Structure 2

There is an influence of family environment, education costs, and interest in reading on learning achievement both simultaneously and partially. To see more clearly can be seen in Figure 3.

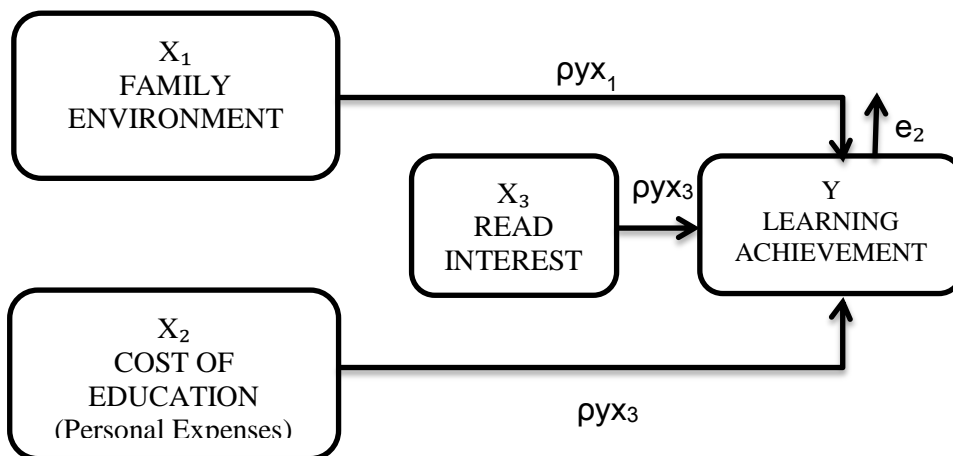


Figure 3. Structure 2

Based on Figure 3, the equation can be made as follows:

$$Y = \rho_{yx1} + \rho_{yx2} + \rho_{yx3} + e_2$$

Operational Variables in this study can be seen in Table 1.

Table 1. Operational Research Variables

Variabel	Indikator	Skala
Learning Achievement (Y)	The results of daily tests of students	Rasio
School Environment (X ₁)	The way parents educate, relationships between members, the atmosphere of the house, economic circumstances, understanding parents	Ordinal
Education Costs (X ₂)	Additional school uniform costs, Shoe fees, Bag fees, Transportation fees, Printed book fees, Painting book fees, Pocket fees, Task fees, Internet vocational fees, Additional tutoring fees.	Rasio
Interest in Reading (X ₃)	Have a high awareness and interest in reading, Try as hard as possible without any compulsion in looking for reading books, Provide enough time to read more, Materials that have been read are discussed to friends or others, always suggest to friends to read books, Having good reading material	Ordinal

3. Results and Discussion

Descriptive Statistics of Learning Achievement Variables

Table 2 shows the deviation standard of this study that is far below the average number of students learning achievement in entrepreneurship subjects in class XI of Pharmacy, Ikasari Pekanbaru Vocational School. This means that student achievement data is quite homogeneous. Students who get below average scores are greater than above average students grades. This means that student achievement is in the low category.

Table 2. Student Learning Achievements

Student Learning Achievement (Y)	Total	Persentase (%)
Standard Deviation	6,42370	-
Average	74,8627	-
Below average	88	58%
Above average	65	42%

Descriptive Statistics of Interest Reading Variables

Table 3 shows the standard of deviation in this study is far below the average number of students reading interest questionnaire in class XI at the Pharmacy Pharmacy Ikasari Pekanbaru. This means that student achievement data is quite

homogeneous. Students who responded to the reading interest questionnaire with scores below the average were all respondents, totaling 153 students. This means that students interest in reading is still low (Table 3).

Table 3. Student Interest in Reading

Interest in Reading (X3)	Total	Persentase (%)
Standard Deviation	5,99877	-
Average	53,2941	-
Below average	153	100%
Above average	-	-

Descriptive Statistics of Family Environment Variables

Table 4 shows that the standard of devisisation in this study is far below the average number of results of the questionnaire environment of the class XI students of Pharmacy Pharmacy Ikasari Pekanbaru. This means that students family environment data is quite homogeneous. Students who answered questionnaire family environment with a value below the average is greater than students who answered above the average. This means that the student's family environment still rarely gives attention, support, and motivation to children at home.

Table 4. Family environment

Family Environment (X1)	Total	Persentase (%)
Standard Deviation	5,57701	-
Average	42,6732	-
Below average	88	58%
Above average	65	42%

Descriptive Statistics of Education Cost Variables

Table 5 shows that the standard of devisisation in this study is far below the average cost of Education for students of the Pekanbaru Vocational Pharmacy Vocational School. This means that the data on student education costs is quite homogeneous. Under average student tuition fees are smaller than above average education costs. Thus, the cost of education for X1th grade students at SMK Pharmacy Ikasari Pekanbaru is quite high.

Table 5. Education Costs

Education Costs (X2)	Total	Persentase (%)
Standard Deviation	781.270,54249	-
Average	2.082.994,1176	-
Below average	73	48%
Above average	80	52%

Research Hypothesis Results

The overall results of the research can be seen in Figure 4.

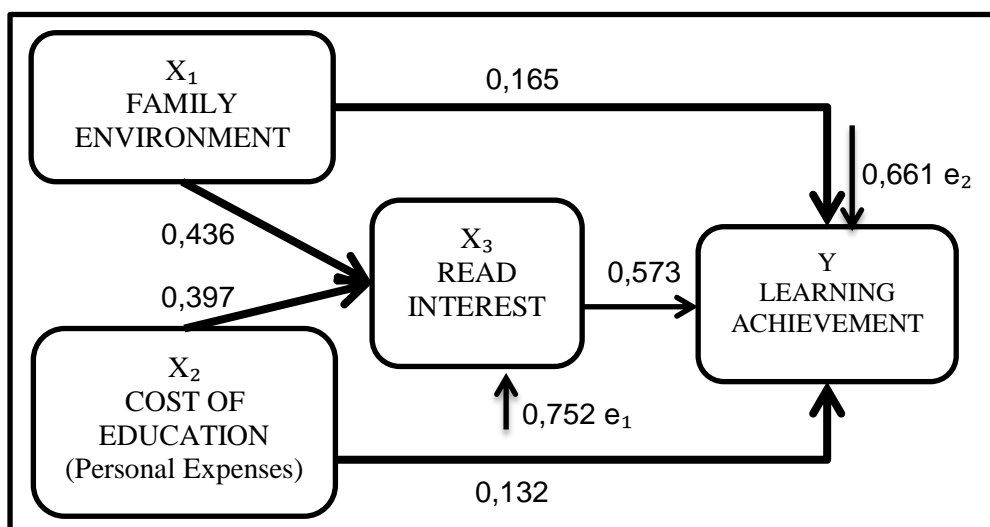


Figure 4. Path Diagram

Research Hypothesis

1. Family environment and the cost of education have a positive and significant effect on reading interest both simultaneously and partially.
2. Family family environment, education costs and interest in reading have a positive and significant impact on student achievement both simultaneously and partially.

To see the magnitude of the influence of the family environment and the cost of education on learning achievement with interest in reading as an intervening variable more clearly can be seen in structures 1 and 2, as follows:

Structure 1

To see the results of structure 1 research can be seen in Figure 5.

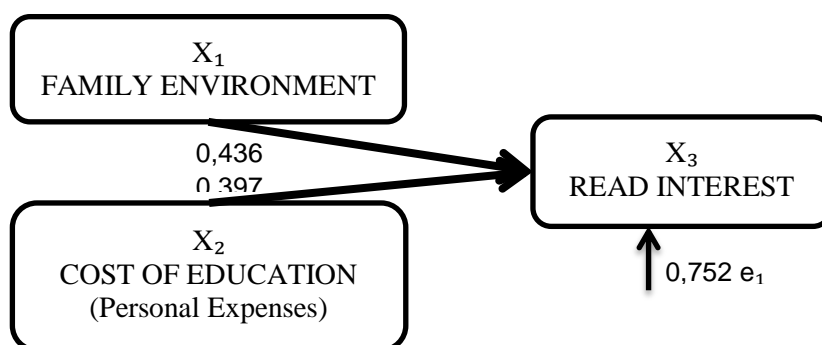


Figure 5. Structure Path Diagram 1

Based on Figure 5, the structural path equation 1 is $X_3 = 0.436 X_1 + 0.397 X_2 + 0.752 e_1$. For more details, see Table 7.

Table 7. Effects of Family Environment (X1) and Education Costs (X2) Towards Reading Interest (X3)

Path	Koefisien Paht	Signifikan	Information	Influence
$X_1 \rightarrow X_3$	0,436	0,000	Signifikan (Ho refused Ha accepted)	19%
$X_2 \rightarrow X_3$	0,397	0,000	Signifikan (Ho refused Ha accepted)	15,77%
$R^2 = 0,435$ (43,5%)				
Sig. (<i>p</i> -volie) = 0,000				
$e_1 = \sqrt{1 - R^2} = \sqrt{1 - 0,435} = 0,752$				

The Effect of Family Environment and Education Costs on Reading Interest Simultaneously and Partially

In the diagram, the shape of the structure of family environment variables and the cost of education on reading interest can be seen in Figure 5. Furthermore, the influence of family environment and the cost of education on reading interest can be seen in Table 7.

Simultaneously the family environment and the cost of education have a positive and significant effect on students' reading interest with the remaining 43.4% (56.6%) influenced by other factors beyond the factors studied. Other factors include internal and external motivation (school environment and community environment), learning systems, low production of quality books, lack of reading facilities in Indonesia, and technology (Periyeti, 2017). The partial influence of family environment variables and the cost of education on reading interest can be seen as follows:

Influence of Family Environment on Students Reading Interest

The results showed that the family environment had a positive and significant effect on students' reading interest. For more details, it can be seen in Table 7. The statement is in line with the opinion of Aida (2015) stating that the factor influencing reading interest is the family environment and in line with the results of previous research which states that the Family Environment has a significant effect on interest in reading (Aida, 2015).

Effect of Education Costs on Student Reading Interest

The results showed that the cost of education had a positive and significant effect on students' reading interest. It can be seen more clearly in table 7. One of the factors affecting reading interest is the lack of facilities for reading (Nafisah, 2014). To get facilities to support increased interest in reading, we need sufficient funds so that the availability of reading facilities and can have an impact on increasing student interest in reading and can improve student knowledge. In the world of education funds spent on educational activities are called education costs. It can be concluded that, the cost of education has an effect on students' interest in reading. This statement is in line with research Mawarnia et al (2017) which states that one indicator of the cost of personal education is the purchase of textbooks and the purchase of pulses used for the internet.

Structure 2

To see the results of structure 1 research can be seen in Figure 6

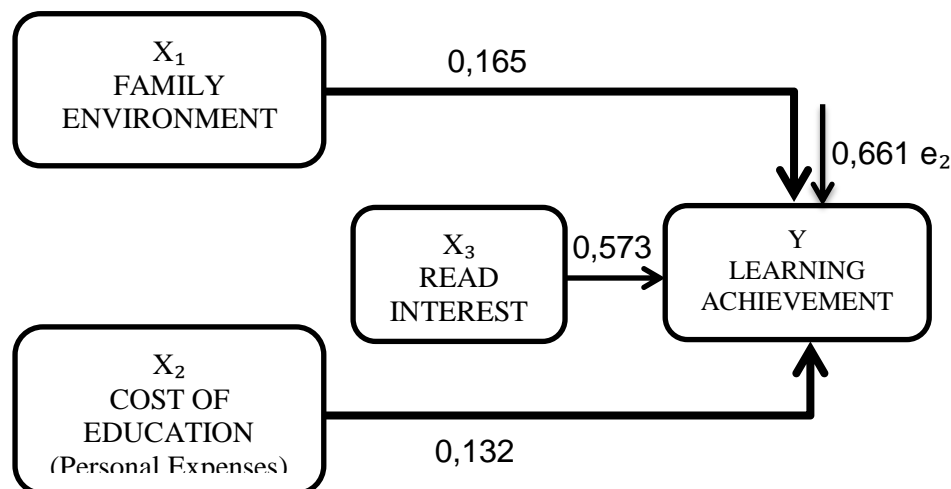


Figure 6. Effect of family environment (X1), Education Costs (X2), and Reading Interest (X3) on Learning Achievement (Y)

Based on Figure 6, the structural path equation 2 is: $X_3 = 0.165 X_1 + 0.132 X_2 + 0.573 X_3 + 0.661 e_2$. For more details, see Table 8.

Table 8 Effects of Family Environment (X1), Education Costs (X2), and Reading Interest (X3) on Learning Achievement (Y)

Path	Koefisien Paht	Signifikan	Information	Influence
$X_1 \rightarrow Y$	0,165	0,011	Signifikan (Ho refused Ha accepted)	2,73%
$X_2 \rightarrow Y$	0,132	0,037	Signifikan (Ho refused Ha accepted)	1,75%
$X_3 \rightarrow Y$	0,573	0,000	Signifikan (Ho refused Ha accepted)	32,84%
$R^2 = 56,3\%$				
Sig. (<i>p</i> -volie) = 0,000				
$e_2 = \sqrt{1 - R^2} = \sqrt{1 - 0,563} = 0,661$.				

Effects of Family Environment, Education Costs, and Reading Interest on Student Achievement Both Simultaneously and Partially

The diagram form of the structure of family confusion, middle-aged education, and interest in reading on student achievement is shown in Figure 6. Furthermore, the magnitude of the influence of the family environment, educational costs, and reading interest on student achievement both simultaneously and partially can be seen in Table 8.

Simultaneously the family environment, the cost of education, and interest in reading have a positive and significant effect on student achievement with the effect of 56.3% while the remaining 43.7% is influenced by other factors beyond

the factors studied. For more details, it can be seen in Table 8. Other factors that influence learning achievement are (1) internal factors such as aspects of jamani, psychological aspects (student intelligence, attention, talent, motivation, readiness maturity), and fatigue aspect; (2) External factors in the form of school environment and community environment (Slameto, 2015). The partial influence of family environment variables, the cost of education, and reading interest on student achievement can be seen as follows:

Effect of Family Environment on Student Learning Achievement

The results showed that the family environment had a positive and significant effect on student achievement. for more clearly can be seen in Table 8. The results of this study are in line with the results of research Suranto (2014) states that, family environment has a significant effect on learning achievement. Meanwhile according to Jamil et al (2014); Pubrianto et al (2018) states that, the Family Environment has a positive and significant effect on learning outcomes.

Effect of Education Costs on Student Learning Achievement

Research results show that the cost of education has a positive effect on student achievement. For more details, it can be seen in Table 8. The results of this study are in line with the research of Suhirman (2012); Muhroji (2012); Mawarnia et al (2017) states the cost of education has an influence on learning outcomes.

The Influence of Interest in Reading Against Student Learning Achievement

The results showed that students interest in reading had a positive and significant effect on learning achievement. for more details, it can be seen in Table 8. The results of this study are in line with the research of Kusuma et al (2018); Nurdin (2011) explained that interest in reading had a significant effect on learning achievement. whereas according to Marlina et al (2017); Hapsari et al (2018) states that, interest in reading partially has a significant effect on economic learning outcomes. However, this study is not in line with research Retariandalas (2017) states that there is no significant influence of interest in reading on student achievement.

4. Conclusion

Based on the results of the study, it can be concluded that the family environment and education costs have a positive and significant effect on the reading interest of students at the Pekanbaru Vocational Pharmacy Pekanbaru both simultaneously and partially and the family environment, the cost of education, and reading interest have a positive and significant effect on student achievement in the Vocational School of Pharmacy Ikasari Pekanbaru both simultaneously and partially.

References

- Aida, W. (2015). Pengaruh Lingkungan Keluarga Dan Minat Membaca Terhadap Hasil Belajar Ekonomi Siswa Kelas XI Ilmu Pengetahuan Sosial Sekolah Menengah Atas Negeri Kota Padang. *Jurnal Ilmiah Cano Ekonomos*, 4(2), 109-120.
- Erwiza, Kartiko, S., & Gimin. (2019). Factors Affecting the Concentration of Learning and Critical Thinking on Student Learning Achievement in Economic Subject. *Journal of Educational Sciences*, 3(2), 205-215.
- Fattah, N. (2012). *Ekonomi & Pembiayaan Pendidikan*. PT. Remaja Rosda Karya. Bandung.
- Hapsari, S., & Rachmawati, L. (2018). Pengaruh Minat Baca Dan Penggunaan Gadget Terhadap Hasil Belajar Ekonomi Peserta Didik Kelas X Ips Ma Al-Hidayah Bangkalan. *Jurnal Pendidikan Ekonomi*, 6(2), 17-22.
- Hasbullah. (2010). *Dasar-dasar Ilmu Pendidikan*. Jakarta : PT Raja Grafindo Persada.
- Jamil, H., & Azra, F. I. (2014). Pengaruh Lingkungan Keluarga Dan Motivasi Belajar Siswa Terhadap Hasil Belajar Akuntansi Siswa Kelas X Smk Negeri 1 Solok Selatan. Jurnal. Jl. Gunung Pangilun No.1, Padang Sumatera Barat, *Journal of Economic and Economic Education*. 2(2), 85-98.
- Junita, D., Suarman., & Kartiko, S. (2018). Accomplishment Motivation and Soft Skill Related to Learning Achievement. *Journal of Educational Sciences*, 2(2), 83-89.
- Kusuma, D., Adi, B.W., & Sunarto. (2018). Pengaruh Minat Baca, Motivasi Belajar dan Lingkungan Teman Sebaya terhadap Prestasi Belajar Mahasiswa Pendidikan Ekonomi Tahun Angkatan 2014-2016. *Jurnal Pendidikan Bisnis dan Ekonomi*, 4(1), 1-15.
- Marlina, L., Casca., & Mahdum. (2017). Hubungan Minat Baca dan Motifasi Belajar Dengan Hasil Belajar Ekonomi Siswa Kelas XI IPS SMAN 10 Pekanbaru. *Pekbis Jurnal*, 9(1), 33-47.
- Mawarnia, B., & Unesa, P. (2017). Pengaruh Biaya Pribadi (*PrivateCost*) dan Presepsi Siswa Dalam Pembelajaran Ekonomi Materi Akuntansi Terhadap Hasil Belajar Siswa, *Jurnal Ekonomi Pendidikan dan kewirausahaan*, 5(1), 91-104.
- Muhrojid. (2012). Pengaruh Sarana dan Biaya Pendidikan Terhadap Hasil Belajar di Sekolah Menengah- *Jurnal Pendidikan Ilmu Sosial*, 22(2), 93-102.
- Mulyono. (2010). Pendidikan Bagi Anak Berkesulitan Belajar. Rinaka Cipta. Jakarta.
- Nafisah, A. (2014). Arti Penting Perpustakaan Bagi Upaya Peningkatan Minat Baca Masyarakat. *Jurnal Perpustakaan Libraria*, 2(2), 69-81.
- Nurdin. (2011). Pengaruh Minat Baca, Pemanfaatan Fasilitas dan Sumber Belajar Terhadap Prestasi Belajar IPS Terpadu SMP Negeri 13 Bandar Lampung. *Jurnal Ekonomi & Pendidikan*, 8(1), 88-101.
- Nurmaliza, Caska., & Indrawati, H. (2018). Analysis of Factors Affecting Entrepreneurial Interest of Vocational High School Students in Pekanbaru. *Journal of Educational Sciences*, 2(2), 42-5.
- Peraturan Pemerintah (PP) No. 48 Tahun 2018. *Pendanaan Pendidikan*.
-

-
- Pubrianto, R., & Rustiana, A. (2018), Pengaruh Disiplin Belajar, lingkungan Keluarga, dan Motivasi Belajar Terhadap Hasil Belajar. *Economic Education Analysis Journal*, 7(1), 341-361.
- Retariandalas. (2017). Pengaruh Minat Membaca Dan Motivasi Belajar Terhadap Prestasi Belajar IPA Siswa. *Jurnal Formatif*, 7(2), 190-197.
- Slameto. (2015) *Belajar dan Faktor-Faktor Yang mempengaruhinya*. Jakarta: Rineka Cipta.
- Suhirman. (2012). Pengaruh Biaya Pendidikan Terhadap Hasil Belajar Melalui Proses Belajar Mengajar Di SMA Negeri Se-Kabupaten Rembang Tahun 2011. *Journal of Economic Education*, 1(2), 117-122.
- Suranto. (2014). Pengaruh Lingkungan Keluarga dan Lingkungan Pergaulan Terhadap Prestasi Belajar Ekonomi Siswa. *Jurnal Pendidikan Ekonomi Dinamika Pendidikan*, 9(1), 92-99.
- Yarnefi, Kartiko, S., & Gimin. (2019). Interest and Factors Affecting Student in Choosing Social Departments. *Journal of Educational Sciences*, 3(2), 227-236.

How to cite this article:

Sutriayu, Makhdalena, & Sumarno (2020). Effect of Family Environment and Education Costs on Student Achievement with Interest in Reading as an Intervening Variable in Ikasari Pharmacy Vocational School Pekanbaru. *Journal of Educational Sciences*, 4(1), 164-175.
