

# Factors Affecting the Interests of Junior High School Students to Continue to High School of Automotive Engineering



Fajrin Sidiq Muzaffarul Zaman, Zaenal Arifin, Didik Rohmantoro

**Abstract:** The purpose of this study is to find out how much interest students have in choosing to continue their studies at the vocational high school of light vehicle engineering expertise in bantul regency, seen from (1) individual students; (2) parents' encouragement; (3) environment; (4) mass media information.

The study population was all students of the vocational high school of light vehicle expertise in bantul regency. Sampling was carried out using two stages, namely cluster sampling and random sampling using the formula krejcie and morgan with an error rate of 5%, a sample of 221 students were taken from six vocational high schools in bantul district. Data collection is determined using a questionnaire. Data analysis techniques include simple regression analysis and multiple regression.

The results showed that: (1) there was a significant positive effect on the individual character of students on the students' interest in choosing to continue their studies at the vocational high school of light vehicle engineering package in bantul by 41.6%; (2) there is a significant positive effect of parents' encouragement on students' interest in choosing to continue their studies to a high vocational school of light vehicle engineering expertise in bantul by 48.8%; (3) there is a significant positive effect on the students' environment on the students' interest in choosing to continue their studies at the vocational high school of light vehicle engineering expertise in bantul by 46.6%; (4) there is a significant positive effect of mass media information on students' interest in choosing to continue their studies at the vocational high school of light vehicle engineering expertise in bantul by 40.2%

**Keywords :** Student interest, parent encouragement, student environment, mass media information

## I. INTRODUCTION

In this era of progress, the increase in the number of motorized vehicles in Indonesia can pose a particular threat to transportation problems. According to the national police

headquarters data, the number of motorcycles in circulation in Indonesia in 2002 was 17,002,130 units, and in 2012 it had increased to 76,381,183 units. While the number of passenger cars was 3,403,433 units in 2002 and became 10,432,259 units in 2012, which means that for ten years, in Indonesia there has been an increase in the number of motorcycle units by 449% and an increase in the number of passenger car units by 306%

The association of Indonesian automotive industries (gaikindo) estimates that the need for experts in the automotive sector will increase as the activities of motor vehicle production in Indonesia increase. Chairman gaikindo jongkie d. Sugiarto stated that the need for skilled personnel was needed by automotive assembly plants and domestic component production, which was growing. The solution in providing skilled and skilled workers can be through formal education, namely through the vocational high school.

School is a formal educational institution that intentionally, directed, and systematically must create the most comprehensive opportunity for each individual to develop themselves by their abilities. Education has a vital role in educating the nation. The 1945 constitution of the Republic of Indonesia article 31 paragraph (1) states that every citizen has the right to education, and paragraph (3) confirms that the government is endeavoring and implementing a national education system that enhances faith and piety and noble character in the context of educating the life of the nation which is regulated by law. Vocational education, according to the law of the Republic of Indonesia no. 20 of 2003 concerning national education system article 18 explained that: "vocational education is secondary education that prepares students especially to work in certain fields."

Improving the quality and relevance of vocational secondary education is carried out by developing study programs or majors that are suitable to the needs of the workforce. The vocational high school in each region is also encouraged to develop study programs oriented to local excellence, both in the aspects of skills and entrepreneurship, in addition to the educational services provided to the community in the history of the nation's journey so far have not fully met expectations. The world of education still faces fairly fundamental challenges, namely the problem of expansion and equity, quality issues, relevance and competitiveness of education as well as problems of strengthening governance, accountability, and public imaging.

Manuscript published on November 30, 2019.

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Bantul regency has a comparison between the number of intermediate schools/mas with relatively high vocational schools, namely public and private middle schools, amounting to 49 schools, while state and private vocational high schools amount to 36 schools. From the number of vocational high schools, there are only 2 high vocational schools and four vocational high schools that organize an automotive expertise package. Vocational high school automotive expertise package is one type of vocational secondary education. Vocational education is synonymous with learning how to improve one's technical competence and position in the environment through the mastery of technology and vocational education jointly with the needs of the job market.

Most students still consider vocational high school as a school aimed only at prospective workers and cannot continue to college as well as the middle school intended to continue on to college with the assumption that making vocational high school becomes the second school after top middle school, in the sense of the middle school, is superior to vocational high school [1]. Furthermore, quoted from mediaindonesia.com, only about 60% of the middle school graduates who continue to university, and surprisingly the junior high school / MTS graduates deliberately choose the middle school even though after graduation, they will look for work. This means that graduates of junior high school / MTS do not consider that in preparation for entering the workforce, choosing a vocational high school is more suitable than the middle school, this is certainly not by the functions and objectives of vocational high school.

In this connection, the government provides a policy to increase the proportion of vocational high schools: middle schools ie, 70:30. Increasing the proportion of vocational high school is also based on the fact that unemployment has not been controlled, especially for middle-level workers. It turns out that vocational high school graduates can help reduce unemployment rates [2].

Another factor that can influence students 'interest in choosing a vocational high school is the level of students' knowledge or understanding of the inside and outside of vocational high school. The level of student knowledge about vocational high school depends on the intensity of information obtained through electronic media (tv, radio, internet), print media (newspapers, magazines, etc.), guidance and counseling services at junior high school, the experience of visiting the vocational high school, and so forth. Student service programs in each school are not the same will cause the level of knowledge and understanding of vocational high school to be varied [3]

Currently, the government is only aggressively promoting the vocational high school through national print or electronic media in the hope that the public will be more interested in sending their children to vocational high school. The socialization done by the government through the mass media is considered sufficient to improve the image of vocational high school although it has not been fully touched because junior high school graduate students or their parents do not understand what vocational high school, what type of expertise program and so on. These problems need to be examined immediately to get more appropriate solutions and

more satisfying results on the education policy that will be issued (comparison of vocational high schools: middle schools, 3: 2) and on future education policies. It is expected that with this research, it can help the government target to increase the proportion of vocational high school compared to the middle school.

## II. STUDY OF LITERATURE

### A. Vocational High School

Vocational high school (vocational high school) is a form of formal education unit that organizes vocational education at secondary education level as a continuation of junior high school, MTS, or other equivalent forms. Schools in education and vocational level can be called vocational high school (vocational high school) or vocational aliyah madrasah (mak), or other equivalent forms (law on national education system number 20 the year 2003).

Vocational education is closely related to skills using tools or machines, vocational education is identified on the dichotomous assumption namely general knowledge versus specific knowledge; knowledge of theory versus practice; understanding the concept of opposing thinking skills; creative ability versus reproductive ability, intellectual ability versus physical ability; preparation for life opponents preparation for work [4].

Vocational education is an education that prepares young people and adolescents to enter the workforce; vocational education is a learning process related to engineering and practice issues. Vocational education is an effort to develop social employment, maintenance, acceleration, and improvement of the quality of individual workers in the context of increasing community productivity [5].

### B. Student Interest

Interest is a mental device consisting of a combination, combination, and a mixture of feelings, hopes, prejudices, fear, anxiety, and other tendencies that lead individuals to a particular choice [6]. Desire can be interpreted as a condition that occurs when someone sees the characteristics or meanings of a situation that connects with their interests or needs [7]. Interest is the acceptance of a relationship between oneself and something outside oneself [8].

### C. Factors That Affect Interest

Two main factors influence the emergence of interest, namely, internal factors and individual external factors. Individual internal factors such as academic ability, gender, desire to help the family economy, attitude, and achievement. Individual external factors, such as the environment, residence, and socioeconomic background [9]. Conditions that affect student interest in school are school experience, parental influence, sibling attitudes, friendly attitude, friend acceptance, academic success, attitude toward work, the relationship between teacher and student, and the emotional atmosphere of the school [10]. "the study investigated the predictive utility of interest profile differentiation, coherence, elevation, congruence and vocational identity commitment and career maturity" one of the factors influencing interest in vocational schools is career maturity in career planning [11].



#### D. Individual Character Of Students

Personality qualities are qualified into three namely; a) knowing oneself (knowing oneself) means students must be aware of their uniqueness, weaknesses, and strengths, and must know in what efforts to make themselves more successful; b) understanding others (understanding others) means that this quality requires openness of heart and freedom from a rigid way of thinking according to personal beliefs or views; c) the ability to communicate with others (relating to others) means that this ability clearly rests on the ability to understand others [12]. Each individual has characteristics, traits, and characteristics that are different from one another. Differences occur because each individual is influenced by nature or characteristics inherited (heredity) and environmental characteristics of each individual [13].

#### E. Parent Student Encouragement

Children's attitudes towards school will be influenced by parents' attitudes as well [14]. Parents' income plays a vital role in determining the allocation of funds for their children's education: "this negative relationship at the family level between the number of children and spending per child implies a close and also usually negative relationship at the aggregate level between population growth and investment in human capital. Differences among ethnic groups in the united states are fascinating. Groups with high school families generally spend a lot on each child's education and training, while those with prominent families spend much less. Small family groups usually spend more on training and education for their children, while those with significant family members spend very little [15].

#### F. Student Environment

Life and environmental experiences will significantly affect a person's way of thinking, which results in the creation of a human outcome resulting from the formation of his social environment, and vice versa, one's way of thinking is influenced by their sensory perception of the environment [16]. The units of the social environment that surround a person's life consist of family, institutions, community, community, and nation [17].

#### G. Mass Media Information

Mass media is an abbreviation of the mass media of communication or media of mass communication. The mass media is "communication using facilities or equipment that can reach the maximum mass and the broadest area." "mass communication will not be separated from the masses, because in mass communication, the delivery of messages is through the media." Mass media is a source of strength of control, management, and innovation tools in society that can be utilized as a substitute for strength or other resources. The mass media has a variety of strategic roles which include a decisive role, such as: contributing in disseminating and strengthening common understanding among citizens of an issue, as a public event that can be used as a venue for exchanging aspirations between government-citizens, understanding of culture, as a controlling medium in control of a person, group, group and also individual institutions, raising awareness of social, political, defense-security, cultural and so on [18].

### III. RESEARCH METHODS

The method used in this study is an ex-post facto (non-experimental) research method in which the researcher does not control the independent variable directly because the embodiment of the variable has occurred [19]. Furthermore, the research approach used is a quantitative approach with descriptive analysis, which is an approach in which the results of research in the form of numbers are described and then presented in the form of graphs, diagrams, tables, pictograms, mean, mode, median, standard deviation, and variance. Because in this study aims to measure the symptoms without investigating the causes of symptoms from a population and using a questionnaire as a primary data collection tool.

The type in this study, when viewed from the level of exploration, is the type of correlation research. Because this study aims to determine the relationship between two or more variables, this research conducted by collecting facts based on measurements of the symptoms that occur in respondents, be real, and do not manipulate the research variables.

This research, as conducted in six vocational high schools in bantul regency. The school is at, one vocational school state one Sanden, vocational high school states one Sedayu, vocational high school Muhammadiyah 1 bambanglipuro bantul, vocational high school Muhammadiyah 1 bantul, high vocational school Muhammadiyah 1 Imogiri bantul, and high vocational school Muhammadiyah Piyungan bantul. The time of the research in September to October 2018.

The population in this study were all students of class x vocational high vocational school the expertise package in bantul regency that will be examined. Sampling was carried out using two stages, namely cluster sampling and random sampling using the formula krejcie and morgan with an error rate of 5%, a sample of 221 students were taken from six vocational high schools in bantul district. Data collection techniques in this study used a questionnaire in the form of a questionnaire. The questionnaire contained items of questions compiled using a Likert scale (Likert scale) and rating scale (rating scale). Likert scale is used to regulate the attitudes, interests, and perceptions of a person or group of people. The rating scale is used to measure respondents' perceptions of environmental phenomena, such as a scale to measure social, economic status, knowledge, abilities, and so on. In research instruments, the variables to be measured are translated into indicator variables and arranged into instrument items, which can be questions or statements.

The measurement scale uses four answer choices, namely strongly agree (ss), agree (s), disagree (ts), and strongly disagree (sts) with a score of 4,3,2,1 for definite answers and 1,2,3, 4 for negative answers. The scoring of each answer is as follows.

**Table 3. Scoring of each answer**

Positive Questions		Negative Questions	
Alternative Answer	Value	Alternative Value	Value
Strongly agree	4	Strongly agree	1
Agree	3	Agree	2
Disagree	2	Disagree	3
Strongly Disagree	1	Strongly Disagree	4

The questionnaire that has been arranged is then consulted and tested before being used in actual research, to find out whether the instrument is valid and reliable.

**IV. RESEARCH RESULT**

The first hypothesis in this study is that the individual character factors of students have a significant influence on students' interest in choosing to continue their studies at the vocational high school of light vehicle engineering expertise in bantul regency. The hypothesis proposed is accepted and is very significant. This can be seen from the results of the statistical test calculations, which obtained a regression coefficient of 1.069 with a count of 12.489 > t table 1.971 at a significance level of 95% (α = 0.05). These results indicate that t arithmetic higher than t table so rejected h0, so there is a significant positive effect of the regression coefficient of the variable in question.

The second hypothesis in this study is that parents 'encouragement factors have a significant effect on students' interest in choosing to continue their studies at vocational high school of light vehicle engineering expertise packages in bantul regency. The hypothesis proposed is accepted and is very significant. This can be seen from the results of the statistical test calculations, which obtained a regression coefficient of 0.744 with a count of 14.438 > t table 1.971 at a significance level of 95% (α = 0.05). These results indicate that t arithmetic higher than t table so rejected h0, so there is a significant positive effect of the regression coefficient of the variable in question.

The third hypothesis in this study is that students 'environmental factors have a significant influence on students' interest in choosing to continue their studies at the vocational high school of light vehicle engineering expertise in bantul regency. The hypothesis proposed is accepted and is very significant. This can be seen from the results of the statistical test calculations, which obtained a regression coefficient of 0.670 with t count 13.817 > t table 1.971 at a significance level of 95% (α = 0.05). These results indicate that t arithmetic higher than t table so rejected h0, so there is a significant positive effect of the regression coefficient of the variable in question.

The fourth hypothesis in this study is that the mass media information factor has a significant influence on students' interest in choosing to continue their studies at the vocational high school of light vehicle engineering expertise package in bantul regency. The hypothesis proposed is accepted and is very significant. This can be seen from the results of the statistical test calculations, which obtained a regression coefficient of 0.842 with t count 12.128 > t table 1.971 at a significance level of 95% (α = 0.05). These results indicate that t arithmetic higher than t table so rejected h0, so there is a

significant positive effect of the regression coefficient of the variable in question.

The fifth hypothesis in this study is the individual character factors of students, parents 'encouragement, student environment, and mass media information significantly influence students' interest in choosing to continue their studies to the vocational high school of light vehicle engineering expertise package in bantul regency. The hypothesis proposed is accepted and is very significant. This can be seen from the results of the statistical test calculations, which are obtained with an f count of 95.267 > f table of 2,413 at a significance level of 95% (α = 0.05). These results indicate that t arithmetic greater than t table so rejected h0, so there is a significant positive effect of the regression coefficient of the variable in question.

**V. CONCLUSION**

Based on the results of testing the research hypothesis, data findings, tabulation, processing, and assessment of all data netted in the instrument of each variable, it can be obtained several conclusions from the results of this study as follows: students in choosing to continue their studies to the vocational high vocational light vehicle engineering expertise package in bantul regency are included in both categories by 41.6%. (2) there is a significant positive effect of parents 'encouragement on students' interest in choosing to continue their studies at the vocational high school of light vehicle engineering expertise in bantul regency, which is included in both categories by 48.8%. (3) there is a significant positive effect on the students 'environment on students' interest in choosing to continue their studies at the vocational high school of light vehicle engineering expertise in bantul regency, which is included in both categories by 46.6%. (4) there is a significant positive effect of the mass media on students' interest in choosing to continue their studies at the vocational high school of light vehicle engineering expertise in bantul regency, which is included in the excellent category by 40.2%. (5) There is a significant joint effect of individual character factors of students, parents 'encouragement, student environment and mass media information on students' interest in choosing to continue their studies to vocational high school of light vehicle engineering expertise packages in bantul regency with the y regression equation = 3.40 + 0.473x1 + 0.255x2 + 0.294x3 + 0.173x4. R2 value of multiple linear regression of 0.638. This means that the individual character factors of students (x1), parents 'encouragement (x2), student environment (x3) and mass media information (x4), affect students' interest in choosing to continue their studies to high school vocational light vehicle engineering expertise packages in bantul regency has a high category of 63.8%, the rest (36.2%) is influenced by factors other than the individual character of students, parents' encouragement, student environment, and mass media information.



## VI. SUGGESTION

Based on the findings in the field obtained in this study, then there are several suggestions as follows: (1) for vocational high schools, the light vehicle engineering expertise program is recommended to provide students with character education through activities in school. The need for additional socialization about prospects for students. Because it will give students a complete and clear understanding of themselves, so students are not confused about channeling their talents. (2) for the government through the department of education it is advisable to socialize the advantages of high vocational school further so that with more information, it will further increase interest in attending vocational high school. (3) for further researchers, it is necessary to conduct further research on other factors that can influence students' interest in choosing to continue their studies to a vocational high school of light vehicle engineering expertise package, in addition to those used in this study.

## REFERENCES

1. Samani, Muchlas, Hariyanto. 2011. *Konsep dan Model Pendidikan Karakter*. Bandung Remaja Rosdakarya
2. Isjoni. 2009. *Lulusan SEKOLAH TINGGI KEJURUAN Bantu Atasi Pengangguran*. Data diambil 12 Juli 2018 dari [www.koran-jakarta.com](http://www.koran-jakarta.com).
3. Ahmad Zahrowi. (2007). *Minat Siswa Kelas 3 JUNIOR HIGH SCHOOL di Kecamatan Piyungan Untuk Memilih Sekolah Menengah Kejuruan*. Tesis Magister, tidak diterbitkan, Universitas Negeri Yogyakarta.
4. Pavlova, M. (2009). *Tecnology and Vocational Education For SustainableDevelopment*. Austalia:Spinger.
5. Clarke, L. & Winch, C. (2007). *Vocational ed- ucation. international approaches, developments, and systems*. Routledge. 270.Madison Avenue, New York.
6. Sukardi, DK. 2000. *Pengantar Pelaksanaan Program Bimbingan dan Konseling di Sekolah*. Jakarta: Rineka Cipta.
7. Muhibbin,Syah. 2009. *Psikologi Belajar*. Jakarta: Raja Grafindo Persada.
8. Djaali. (2007). *Psikologi Pendidikan*. Jakarta: Bumi Aksara.
9. Crow Lester D. & Crow Alice. (1982). *An Outline of General Psychology*. Tokyo: Charles E. Tuttle Company.
10. Hurlock,E.B.1993. *Psikologi Perkembangan: Suatu pendekatan sepanjang rentang kehidupan* (edisi kelima). Jakarta: Erlangga
11. Hirschi, A. (2010). Individual Predictor of Adolescents Vocation Interest Stabilities. *Journal Springer Science & Business Media B.V*. Diambil pada tanggal 1 Desember 2018 dari <http://search.proquest.com/pqri/docview>.
12. Winkel, W.S. dan Sri Hastuti. 2006. *Bimbingan dan Konseling di Institusi Pendidikan*. Yogyakarta: Media Abadi.
13. Sunarto & B. Agung Hartono. 2007. *Perkembangan peserta didik*. Jakarta: Adi Mahasatya.
14. Crow L. dan Crow. A. 2000. *Psikologi Pendidikan* (Terjemahan Kasijan Z). Surabaya : Bina Ilmu.
15. Becker, Gary Stanley. (1993). *Human Capital : a theoretical and empirical analysis, with special reference to education* 3rd edition. London : The University of Chicago Press, Ltd.
16. Agustian, Ary Ginanjar. 2001. *Rahasia Sukses Membangun Kecerdasan Emosi dan Spiritual- ESQ*. Jakarta: Penerbit Arga.
17. Siti Irene Astuti. 2001. *Ilmu Sosial Dasar*. Yogyakarta: UPT MKU UNiversitas Negeri Yogyakarta.
18. McQuail, Denis. 2010. *Mass Communication Theories 6th edition*. London: Sage Publication.
19. Furchan, Arief. 2011. *Pengantar Penelitian Dalam Pendidikan*. Yogyakarta: Pustaka Pelajar Offset (Journal Online Sources style) K. Author. (year, month). Title. *Journal* [Type of medium]. Volume(issue), paging if given. Available: <http://www.URL>

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