



JTH

<https://jthkkss.com/>

e-ISSN 2805-4431



DOI: <https://doi.org/10.53797/jthkkss.v3i2.3.2022>

Research on The Effectiveness of The Bandar Baharu Community College Light Vehicle Service Program on The Automotive Industry

Kumaran, Kalaivanan¹ & Saad, Fakharul^{2*} & Samurgam, Tilakiswaran^{3*}

^{1,2,3}Bandar Baharu Community College, No 1 Jalan Shariah, Bandar Baharu, 34950, MALAYSIA

*Corresponding author email: kalaivanan@kkbb.edu.my

Available online 01 August 2022

Abstract: The Transformation of Technical and Vocational Education aims to produce TVET graduates with optimal technical and technological skills. This research paper was produced to identify the effectiveness of the Bandar Baharu Community College Light Vehicle Service program on the automotive industry, after 15 years of being offered educational service. To ensure that the programs being offered remain relevant to the country's employment needs in the automotive industry, this study is required and implemented by examining aspects of the content and suitability of the program with the needs of automotive organizations, employment opportunities for graduates, graduates' development opportunities and collaboration and industry cooperation with Bandar Baharu Community College. A total of 88 automotive operators answered the survey questionnaire and all of them were selected as survey respondents. A research study was also conducted to measure the reliability of the study instrument using Cronbach's Alpha. The overall value of the research study was 0.993. The data of this study were processed and analyzed using Statistical Package for the Social Science SPSS version 22 to obtain the mean value, standard deviation, frequency, and percentage. Overall, the findings of the study show that the level of effectiveness of the Bandar Baharu Community College Light Vehicle Service program in the automotive industry is at a high and commendable level with an overall mean value of 4.18 (SD = 0.415). The results of this study have also received the latest market feedback from the automotive industry which covers four aspects evaluated. The result of the study showed that the industry gave feedback that the content of the Bandar Baharu Community College Light Vehicle Service program is by the needs of organizations in the automotive industry. The results also show that career opportunities are very wide and open for graduates to work in organizations in the automotive industry around the states of Kedah, Perak, and Penang. The findings of this study are expected to help the management of Bandar Baharu Community College, Polytechnic Education Department, and Community College in planning and implementing the Light Vehicle Service program.

Keywords: Light vehicle service program, Bandar Baharu community college, automotive industry, program effectiveness

1. Introduction

The automotive industry is a contributor to 4% or RM40 million of the country's total revenue and is an industry that creates more than 700,000 jobs for Malaysians. Semi-skilled workers with certificates and diplomas are the largest group that is the backbone of the development of the country's automotive industry. According to Johari et al. (2014), technical and Vocational Education Training plays significant role as the medium to educate and prepare future workers to the industry needs. Therefore, various programs and courses are offered by various parties to supply the manpower in the industries.

In total, 106 Community Colleges throughout Malaysia operate with an enrolment of more than 23,721 students follow more than 134 study programs certificate, diploma (Work-Based Learning), and special skills certificates for students with special needs (Mat Isa et al., 2021).

Light Vehicle Service is the only program offered at Bandar Baharu Community College since 2006. The program offers higher education to high school graduates who pursue studies at the certificate level to gain theoretical and practical knowledge and skills in the field of light vehicle maintenance (Widoretno, 2017).

The Light Vehicle Service Program is conducted over four semesters. Three semesters of learning occur on campus and one semester requires students to undergo industrial training. The Light Vehicle Service Program is enhanced with a module learning syllabus that requires students to perform practical activities using mechanical equipment and machines such as hand tools, automotive tools, vehicle lifting machinery, and special automotive equipment to complete the assessment and evaluation at Bandar Baharu Community College (Bertuca, 2012; Situmorang, Situmorang, & Saragih, 2021). The knowledge and skills gained through this program prepare students for employment in the automotive industry and further their studies to a higher level in the automotive field (Farida & Rozi, 2022).

According to Dason, Hamzah, & Udin (2010), a successful course in Technical and Vocational Education Training is supposed to be updated with latest curriculum and trainings that match the current industry's needs. Therefore, this research paper was produced to identify the effectiveness of Bandar Baharu Community College Light Vehicle Service program on the automotive industry, after 15 years of being offered educational services. To ensure that the programs being offered remain relevant to the country's employment needs in the automotive industry, this study is required in line with the Twelfth Malaysia Plan (12MP) (2021–2025).

1.1 Objectives of the Study

From the observation of the lecturers of the Automotive Unit of Bandar Baharu Community College, it was found that the graduates of the Light Vehicle Service program at Bandar Baharu Community College have gotten jobs in the automotive field easily and at an immediate rate after graduation. This is evidenced by the TVET Graduate Tracking Study Report 2018 to 2020 Bandar Baharu Community College. Therefore, the question for this study is to obtain data from employers to help the Bandar Baharu Community College to know the extent of the effectiveness of the Light Vehicle Service program and further maintain the relevance of offering this program in Bandar Baharu Community College. Briefly, the objective of this study is to:

- To identify the effectiveness of the Bandar Baharu Community College Light Vehicle Service Certificate Program
- Get the latest market feedback from the automotive industry.

1.2 Scope of The Research

The study of the effectiveness of the Bandar Baharu Community College Light Vehicle Service program on the automotive industry covers the automotive industry in the field of vehicle maintenance. The industry involved is also an automotive premises or center where Light Vehicle Service students have previously undergone industrial training and have also obtained work placements upon graduation. This study fully emphasizes the feedback from employers or the automotive industry around the States of Kedah, Penang, and Perak.

The study of the effectiveness of the Bandar Baharu Community College Light Vehicle Service program on the automotive industry tends to get feedback from employers in the automotive industry in the following aspects:

- Content and suitability of the program with the needs of the automotive organization.
- Employment opportunities for graduates.
- Opportunities for self-development (personal development) of graduates.
- Collaboration and cooperation of the industry with the Community College Bandar Baharu.

2. Research Methodology

2.1 Research Design

The chosen research method is a descriptive survey with a quantitative method. A set of survey questions was developed online and distributed in the framework of Google Form to automotive center operators around Kedah, Perak, and Penang where the purpose of the study was to evaluate the effectiveness of the Bandar Baharu Community College Light Vehicle Service program on the Automotive Industry. The Likert scale was used to evaluate the respondents' answers to the questions of this study. Descriptive statistics is a study of current issues and questionnaires are one of the descriptive research methods aimed at obtaining feedback from the study sample Gillham (2008). A research study was also conducted to measure the reliability of the study instrument using Cronbach's Alpha and found that the overall value was 0.993. This research was conducted at Bandar Baharu Community College, Kedah. The research location was chosen based on the factors of offering the Light Vehicle Service course here. These factors help researchers easily obtain company information that will be the research sample. Company information was obtained from the Industrial Relations and Collaboration unit of Bandar Baharu Community College. The second factor that led to the selection of Bandar Baharu Community College as the study site is because it is a place to serve all study researchers.

2.2 Population and Research Sample

Populations are defined as individuals, objects, or things that have similar or specific properties that can be used as a measure of the research. A sample is a small group of the population targeted by researchers for research purposes (Creswell & Creswell, 2013). The current population for this research is automotive center operators around the states of Kedah, Perak, and Penang. Population information of 100 local automotive operators was collected from the Industrial Relations and Collaboration Unit of Bandar Baharu Community College and of the 100 automotive operators, a total of 88 automotive operators responded to the survey questions and all 88 automotive operators are samples for this research.

2.3 Research Instruments

Research instruments are tools used by researchers to research to obtain data such as the needs of researchers to meet the objectives of a study or research (Cohen, Manion, & Morrison, 2002). For this study, a questionnaire in the framework of Google Form was used as a research instrument. Tuckman & Harper (2012) stated that the questionnaire method is most effective in getting feedback because respondents are free to choose the appropriate answer for the questionnaire supplied.

The set of survey questions that have been supplied to the respondents contains two parts of questions, namely parts A and B. The content of part A includes 3 questions related to the background information of the respondents, organization, name, type of organization and type of business. The content of part B consists of questions related to four aspects of the effectiveness of the Bandar Baharu Community College Light Vehicle Service program which are program content and suitability with organizational needs, graduate career opportunities, graduates' development opportunities and the last is collaboration and cooperation industry with Bandar Baharu Community College.

This study uses a Likert Scale by offering five answer choices for the questionnaire questions. The use of the Likert Scale was tailored to the research question. Respondents are required to answer each question and choose only one answer for each question provided.

Table 1: Item classification and Likert scale

Knowledge	Likert Scale	Classification
Strongly Disagree	1	Strongly Disagree
Disagree	2	Disagree
Slightly Disagree	3	Slightly Disagree
Agree	4	Agree
Strongly Agree	5	Strongly Agree

3. Results and Discussion

The data obtained from the respondents were processed and translated into tabular form based on percentage values, mean and standard deviation. The analysis that will be discussed in this chapter includes the analysis of part A which includes the background information of the respondents. The analysis of part B includes the analysis of the following aspects, analysis of program content evaluation and suitability to organizational needs, analysis of job opportunity evaluation for graduates, analysis of graduates' development opportunities, and analysis of collaboration and cooperation of the industry with Bandar Baharu Community College. Analytical data for the study were obtained using SPSS software version 22.

3.1 Data Analysis: Part A - Background of Respondents

The total number of respondents who have answered the survey questionnaire is 88 industries where all respondents are local organizations/industries. Of the 88 respondents, 78 respondents are organizations that run vehicle maintenance businesses, then 4 respondents are organizations that run vehicle body repair businesses, 4 respondents are organizations that run car, tire, and battery maintenance businesses, then 2 respondents are organizations that run business new/old spare parts. Table 2 shows the distribution of respondent data by type of organization and type of business.

Table 2: Distribution of respondents by type of organization and type of business

Type of Business	Locally owned Organization/Industry	Foreign-owned Organization/Industry
Maintenance of Vehicles	78	0
Vehicle body repair	4	0
Car, Tire, and Battery Maintenance	4	0
New/Old Spare Parts	2	0
Others	0	0

3.2 Data Analysis: Part B Based on Research Questions

This Part B data analysis covers the results and data analysis of aspects that influence the effectiveness of the Bandar Baharu Community College Light Vehicle Service program on the automotive industry. The data and analysis that will be discussed in this chapter are based on the data of the following aspects:

- Content and suitability of the program with the needs of the automotive Organization
- Employment opportunities for graduates
- Opportunities for self-development (personal development) of graduates
- Collaboration and cooperation of the industry with Bandar Baharu Community College.

3.2.1 Results and Data Analysis Aspects of Content and Suitability of The Program with The Needs of Automotive Organizations

As for the aspects of content and suitability with the needs of automotive organizations, a total of 5 questions were submitted to the respondents to assess the aspects. Referring to Table 3, the analysis data shows an average mean value of 4.21 respondents and an average standard deviation of 0.402 for that aspect. Analysis of this aspect shows that respondents agree that the content and suitability of the program meet the needs of organizations in the automotive industry. The program content supplied in the program should be appropriate and accepted by the industry so that it is in line with the current industry, the mean average results for this aspect show respondents agree the program content is appropriate and effective as it can be adopted by automotive industry representatives. The results of these data conclude that the content of the Bandar Baharu Community College Light Vehicle Service program is in line with the needs of the automotive industry. The analysis data in Table 3 shows that 21.6% of respondents strongly agree and 78.4% of respondents agree with item 1. For item 2, 20.5% of respondents strongly agree and 79.5% of respondents agree with the question. A total of 20.5% of respondents answered strongly agree and a total of 79.5% of respondents agreed with the duration of the program offered. For item 4, it was found that 21.6% of respondents strongly agreed and 78.4% of respondents agreed with the time and duration of industrial training. Furthermore, for item number 5, it was found that 19.3% of respondents strongly agreed and 80.7 respondents agreed that the Vehicle Service program at Bandar Baharu Community College has a syllabus commensurate with the automotive industry.

Table 3: Distribution of respondents by percentage, mean and standard deviation for aspects of content and suitability of the program with the needs of automotive organizations

No.	Item/ Question	1	2	3	4	5	Min	SD
1	Does the program proposed by KKBB meet the theoretical and practical foundations in the field concerning?	-	-	-	78.4	21.6	4.22	0.414
2	Is a program offered appropriate in the current situation?	-	-	-	79.5	20.5	4.20	0.406
3	Do you think this proposed program is adequate in terms of duration of the study?	-	-	-	79.5	20.5	4.20	0.406
4	Do you think this proposed program is adequate in terms of the Duration of Industrial training (6 Months)?	-	-	-	78.4	21.6	4.22	0.414
5	Do you think this proposed program has a syllabus that is commensurate with the industry of Current automotive?	-	-	-	80.7	19.3	4.19	0.397
Overall							4.21	0.402

3.2.2 Results and Data Analysis of Aspects of Employment Opportunities for Graduates

As for the aspect of job opportunities for graduates, 6 questions were presented in the questionnaire to assess the aspect. Referring to Table 4 it is found that the average mean is 4.18 and the average standard deviation is 0.414 for that aspect. Analysis of this aspect shows that respondents agree that graduates of the Bandar Baharu Community College Light Vehicle Service program have career opportunities in the automotive industry upon graduation. The marketability of graduates is an important factor in measuring the effectiveness of a program, so the average mean value obtained shows that the representatives of the automotive industry think that the graduates of this program are suitable for the automotive job market. The analysis data in Table 4 shows that 20.5% of respondents strongly agree and 79.5% of respondents agree with item 6. For item 7, it consists of 20.5% of respondents strongly agree and 79.5% of respondents agree with the item question. A total of 19.3% of respondents strongly agree and 80.7% of respondents agree that graduates of the Bandar Baharu Community College Light Vehicle Service program are suitable to be a service advisors in the automotive industry. For item 9, it was found that 19.3% of respondents strongly agreed and 80.7% of respondents agreed that graduates of the Bandar Baharu Community College Light Vehicle Service program are suitable to be entrepreneurs in the automotive industry. Furthermore, for item 10, 20.5% of respondents strongly agree and 79.5% of respondents agree with the statement on item 10. Finally, for item 11, 20.5% of respondents strongly agree and 67% of respondents agree that graduates of the Community College Light Vehicle Service program Bandar Baharu should be offered the minimum wage recommended by the government while 12.5% of the respondents slightly disagreed with the question on item 11.

Table 4: Distribution of respondents by percentage, mean and standard deviation for aspects of career opportunities for graduates

No.	Item/ Question	1	2	3	4	5	Min	SD
6	Are graduates of this program suitable to work in your organization?	-	-	-	79.5	20.5	4.20	0.406
7	Are the graduates of this program suitable to hold the position of Vehicle Mechanic in the industry Automotive?	-	-	-	79.5	20.5	4.20	0.406
8	Are graduates of this program suitable to hold a Service Advisor position in the Automotive industry?	-	-	-	80.7	19.3	4.19	0.397
9	Do you agree to a graduate of this program is suitable to be an entrepreneur in the Automotive industry?	-	-	-	80.7	19.3	4.19	0.397
10	Is at least 1 technical position in your organization suitable to be filled by graduates this program?	-	-	-	79.5	20.5	4.20	0.406
11	Do you agree graduates of this program should be offered the minimum wage (2021) recommended by the Malaysia government?	-	-	12.5	67.0	20.5	4.08	0.572
Overall							4.18	0.414

3.2.3 Results and Data Analysis of Aspects of Opportunity for Graduates (Personal Development)

Table 5 shows the distribution of respondents for the aspect of opportunities for self-improvement (personal development) of graduates. A total of 5 questions were submitted to the respondents for this aspect. The findings in Table 5 show an average mean of 4.13 and an average standard deviation of 0.479 for the assessed aspects. The average mean value obtained showed that the respondents agreed that the graduates of the Bandar Baharu Community College Light Vehicle Service program met the criteria of self-improvement (personal development). This means the approach used by Community Colleges Bandar Baharu in shaping the personality of the graduates of the Light Vehicle Service program was accepted by the representatives of the automotive industry. From table 5, it is found that 22.7% of respondents strongly agree and 77.3% of respondents agree that the existing program is suitable to be extended to a higher level. For item 13 found that 19.3% of respondents strongly agree and 68.2% of respondents agree with the statement that graduates of this program have good communication skills, however, 12.5% of respondents have expressed slightly disagree with item 13. Next item 14 shows that 19.3% strongly agree and 68.2% of respondents agree that program graduates have good computer application skills, however, there are 12.5% of respondents slightly disagree with item 14. The data shows that 20.5% of respondents strongly agree and 79.5% of respondents agree with the statement on item 15. For item 16 is found as many as 20.5% of respondents strongly agree and 67% of the total respondents agree with the statement on the item, however, there are 12.5% of respondents slightly disagree with the statement of item 16.

Table 5: Distribution of respondents by percentage, mean and standard deviation for aspects of (personal development) opportunities of graduates

No.	Item/ Question	1	2	3	4	5	Min	SD
12	Is this program suitable to be extended to higher-level studies?	-	-	-	77.3	22.7	4.23	0.421
13	In your opinion do the graduates of this program have good communication skills?	-	-	12.5	68.2	19.3	4.07	0.563
14	In your opinion, the graduates of this program have good skills in computer application?	-	-	12.5	68.2	19.3	4.07	0.563
15	In your opinion, are graduates of this program eligible to register with MBOT for the title of Tc. Certified technician in the field of Automotive?	-	-	-	79.5	20.5	4.20	0.406
16	In your opinion, the graduates of this program have the technical knowledge of automotive and soft skill which conforms to meet the needs of the industry current automotive?	-	-	12.5	67.0	20.5	4.08	0.572
Overall							4.13	0.479

3.2.4 Results and Data Analysis Aspects of Collaboration and Cooperation of the industry with Bandar Baharu Community College

Table 6 shows the findings of the evaluation data for the aspects of collaboration and cooperation of the industry with Bandar Baharu Community College. A total of 4 questions were submitted to the respondents to assess this aspect. From the data obtained, it is found that the mean value is 4.20 and the mean standard deviation is 0.401. The average mean value obtained shows that the industry agrees and is interested in establishing collaboration and cooperation related to the Bandar Baharu Community College Light Vehicle Service program. Collaboration and corporation with industry are very important to strengthen the implementation of the Bandar Baharu Community College Light Vehicle Service program as it is the backbone of the exchange of current ideas and technologies. In addition, collaboration with the industry adds value to the marketability of graduates. The data obtained showed that 20.5% of respondents strongly agree and 79.5% agree with the question of item 17. Furthermore, item 18 found that 20.5% of respondents strongly agree and 79.5% of respondents agreed with the question on item 18. The data shows that 20.5% of respondents strongly agree and as much as 79.5% of respondents agreed to become an industry advisor if offered in the future. These data show that the Bandar Baharu Community College Light Vehicle Service program has gained trust from the automotive industry. Finally, 19.3% of respondents strongly agree and 80.7% of respondents agree with the statement of graduates in this field be the choice of organizations in job offers.

Table 6: Distribution of respondents by percentage, mean and standard deviation for aspects of collaboration and cooperation of the industry with Bandar Baharu community college

	Item/ Question	1	2	3	4	5	Min	SD
17	Is your organization interested in taking KKBB students for industry training and being absorbed into the job in the future?	-	-	-	79.5	20.5	4.20	0.406
18	Will you encourage staff or any contacts of yours to follow this program of study?	-	-	-	79.5	20.5	4.20	0.406
19	In your opinion, does your organization agree to become a KKBB Industry Advisor if offered in the future?	-	-	-	79.5	20.5	4.20	0.406
20	In your opinion will our graduates of this field become your organization's choice in automotive job offers?	-	-	-	80.7	19.3	4.19	0.397
Overall							4.20	0.401

3.2.5 Results and Data Analysis Overall Aspects of The Study

Table 7 shows the mean values and standard deviations for each aspect that have been achieved through this study. The study data showed a mean value of 4.21 and a standard deviation of 0.402 for the content aspect and suitability of the program with the needs of the automotive organization. As for the aspect of employment opportunities for graduates, the mean value is 4.18 and the standard deviation is 0.414. Furthermore, for the aspect of opportunities for self-improvement (personal development) of graduates, the mean value is 4.13 and the standard deviation value is 0.479. For the aspect of collaboration and cooperation of the industry with Bandar Baharu Community College, the mean value achieved is 4.202 and the standard deviation value is 0.401. The results show that the overall average of the study is 4.18 which is a high

mean value and close to 5 and this data shows that the effectiveness of the Bandar Baharu Community College Light Vehicle Service program is at a high and commendable level.

Table 7: Distribution of respondents by mean and standard deviation for the overall study

Aspects of The Study on The Effectiveness of The Community College Light Vehicle Service Program Bandar Baharu Towards The Automotive Industry		Min	SD
1	Content and Suitability of the program with the needs of the automotive organization	4.21	0.402
2	Employment Opportunities for graduates	4.18	0.414
3	Opportunities for self-development of graduates	4.13	0.479
4	Collaboration and Cooperation of the industry with Bandar Baharu Community College	4.20	0.401
		4.18	0.415

4. Conclusion

Overall, the findings of this study show that the effectiveness of the Bandar Baharu Community College Light Vehicle Service Certificate program is at a good and commendable level. The overall mean value of all aspects is highly rated and proves the effectiveness of the program offered. The results of this study have also received the latest market feedback from the automotive industry which covers four aspects evaluated. The findings of the study showed that the industry gave feedback that the content of the Bandar Baharu Community College Light Vehicle Service program is by the needs of organizations in the automotive industry. The results also show that career opportunities are very wide and open for graduates to work in organizations in the automotive industry around the states of Kedah, Perak, and Penang. The study also shows that the industry agrees that graduates of the Bandar Baharu Community College Light Vehicle Service program have a high value of self-development. This shows that the graduates produced are a balanced product of higher education. The industry also believes that the graduates produced have high technical knowledge and soft skills (Murugayya & Nachiappan, 2022). The study also shows that local automotive industry organizations are interested in establishing collaboration and cooperation for the Light Vehicle Service program with Bandar Baharu Community College. Studies prove that the programs offered are effective and should be continued. Therefore, the implications for continuing to offer this study program are as follows:

- The lectures/instructor at Bandar Baharu Community College should be retained and given extensive training opportunities to gain skills in the latest fields.
- The existing infrastructure and facilities need to be updated with the latest version so that the programs offered continue to grow.
- The program curriculum should be dynamic, where the changes should be made according to current industry demands.
- The offering of this program will continue to support the needs of the industry in supplying skilled and semi-skilled manpower in the automotive industry, especially in the field of light vehicle maintenance in Malaysia.

Based on this study, several suggestions can be put forward to ensure that the Bandar Baharu Community College Light Vehicle Service program is always in line with industry requirements and technological developments. Among them are:

- The machines and equipment used for the Teaching and Learning process must be in line with the ever-changing and increasingly advanced state of technology so that the delivery of students' skills can be balanced when they work in the future.
- Lecturers should always be allowed to improve their skills in the field of automotive through various appropriate courses and upgrades in industrial training.
- Maintenance of equipment and machines must be carried out according to schedule to ensure that students have sufficient equipment throughout their studies at Bandar Baharu Community College.
- Curriculum improvement must be in line with the achievements of the Educational Outcomes Program and Learning Outcomes Program so that the curriculum, teaching methods, and assessment methods as well as the application of Outcomes Based Education further strengthen the implementation of the Bandar Baharu Community College Light Vehicle Service Program.

References

- Bertuca, T. (2012). Will losing bidders get back in the game? Joint Light Tactical Vehicle Program To Roll On Without Industry Protests. *Inside the Army*, 24(36), 1-12.
- Cohen, L., Manion, L., & Morrison, K. (2002). *Research methods in education*. routledge.
- Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.

- Dason, A., Hamzah, R., & Udin, A. (2010). Hala tuju Pendidikan Teknik Dan Vokasional ke arah memartabatkan falsafah pendidikan negara. *edupress 2010*.
- Farida, L. A., & Rozi, F. (2022). Scaffolding Talks in Teaching Speaking Skill to the Higher Education Students, Why Not? *Asian Pendidikan*, 2(1), 42-49. <https://doi.org/10.53797/aspen.v2i1.6.2022>
- Gillham, B. (2008). *Developing a questionnaire*. A&C Black.
- Johari, F. M. B., Othman, W., Ismail, H. N., & Isa, Z. (2014). Isu dan cabaran pelaksanaan pendidikan asas vokasional (PAV) di sekolah menengah harian, Malaysia. In Conference on Professional Development in Education (pp. 98-106).
- Mat Isa, C. M., Mustafa, N. K., Joseph, E. O., & Preece, C. N. (2020). Development of Psychomotor Skill and Programme Outcome Attainment of Civil Engineering Students in Malaysia. *Asian Journal of Vocational Education And Humanities*, 1(2), 9-24. <https://doi.org/10.53797/ajvah.v1i2.2.2020>
- Murugayya, C., & Nachiappan, S. (2022). Analysis of Problems in The Teaching and Learning of Science Process Skills Through Hermeneutic Method in SJK(T) from North Kinta District. *ICCCM Journal of Social Sciences and Humanities*, 1(1), 1-7. <https://doi.org/10.53797/icccmjssh.v1i1.1.2022>
- Situmorang, F., Situmorang, J., & Saragih, A. H. (2021, January). The Development of Web-Based Learning Media on the Chassis and Drive Train Maintenance of Light-Vehicle to Improve Students' Learning Achievement at Vocational High School. In *6th Annual International Seminar on Transformative Education and Educational Leadership (AISTEEL 2021)* (pp. 198-201). Atlantis Press.
- Tuckman, B. W., & Harper, B. E. (2012). *Conducting educational research*. Rowman & Littlefield Publishers.
- Widoretno, Y. S. (2017, November). Evaluation Framework With CIPOO Model For Industrial Internship In Light Vehicle Engineering (TKR) Major. In *1st International Conference on Vocational Education And Training (ICOVET 2017)* (pp. 129-132). Atlantis Press.