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Performance Level of the Skilled and Non – Skilled Automotive Students during Work Immersion

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Abstract

This research was conducted to assess/evaluate the performance level of skilled and nonskilled Grade 12 automotive students in Reina Mercedes Vocational and Industrial School. The study looked into the performance of Grade 12 Automotive student through evaluation with the used of administered self – made questionnaire that may lead to the determination of the strength and weakness of the student and to a certain areas improve, their quality as a student. The Quantitative-Comparative method will be used in this study to determine the Performance of grade 12 skilled and non-skilled automotive student in Reina Mercedes Vocational and Industrial School. The performance of non-skilled automotive student in the description of outstanding has a percentage of 50 with a frequency of 10 meanwhile in the description of very satisfactory has percentage 50 also and it has a frequency of 10 considering that non-skilled automotive student are not performing very well, it because there are some problems that they may encountered or beside of it, their knowledge is not enough.

Keywords: Reina Mercedes Vocational, Industrial School, demographic profile, respondents, etc.

INTRODUCTION

Background of the Study

Graduates of this generation are sometimes inefficient and ineffective in applying what they have learned from the four corners of the schools where they came from. One reason is they did not have focus during their school years, they took education for granted, and they did not perform well especially during the on the-job training, internship or work immersion.

Internship or on the job training is one way by which students are given an opportunity to apply the theories and computations that they have learned from school. It also helps to obtain applicable knowledge and skills by performing in actual work setting. Colleges and universities require the students to undergo such training within a specific number of hours as part of the curriculum.

As stipulated in Article 4 of the Vocational and Technical Educational Regulation, training is obligatory for the students who complete the theoretical and applied education at the institution. It aims to improve their vocational knowledge and ability, attitude and approach, and to accommodate their career in the real production and work environment. (Yönetmelik, 2002).

Work immersion for students is an active employment policy instrument to prepare students for work life. It is an instrument, which aims to increase employability by improving skills and qualification of the labor force. (DPT, 2007:47)

On the job training for students as an instrument of active employment policy would possibly affect the employability of graduates. It is based on cooperation between universities and enterprises, and considered a new mechanism that may respond to the demands of the economy and particularly, increase employability.(Ayup, 2008:69).

Automotive technology is the practical application of knowledge about self-propelled vehicles or machines. Students studying automotive technology learn about engine construction, fuel and ignition systems, power trains, brakes, transmissions, electronic and diagnostic equipment, and more. (Idahu, 2000).

Automotive engineering is one of the most exciting professions an individual can choose. From the global concerns of sustainable mobility, and teaching cars to drive in working out, automotive engineering is all about the future. The challenges facing personal mobility are endless.

Automotive engineers work in every area of the industry, from the look and feel of current cars, to the safety and security of new forms of transport. Attempting to make cars as fast as possible, while keeping them fuel-efficient may seem like an impossible task, but this is the kind of problem automotive engineers' deal with every day. (Fisita, 2004).

To combat the problems in the automobile industry, apprenticeship is one of the best ways in addressing the problems in the industry. Apprenticeship is through asking the young people or the local technical college, who might be interested in learning the trade. The best form of education is the hands-on one, especially when it comes to vehicle repair. (Jones, 2013)

The studies above show that work immersion really helps the student-trainees improve the skills that God has given them, help them solve the problems that the humankind have created, make them more responsible, accept challenges and face the consequences that these challenges may bring.

From the observations and viewpoints of the researchers as automotive students, although there are different immersion programs implemented to improve the performance and skills of the

automotive students by the education sector, the realization of the objectives of these programs could be hardly noticed or seen. Hence, this study was conceptualized to determine the performance of skilled and non-skilled automotive students in Reina Mercedes Vocational and Industrial School.

Conceptual Paradigm

The paradigm shows the framework of this study for better understanding on the performance of the skilled and non-skilled automotive students during work immersion.

In the conduct of the study, the researchers were guided by the system analysis approach using the IPO namely the input, process, and output. The input phase consists of the respondents' profile, the problems of non-skilled and skilled automotive students during work immersion and the performance level of the skilled and non-skilled automotive students during work immersion.

The process phase assesses the performance of the skilled and non-skilled automotive students during work immersion and the expected outputs of this study are advanced performance of the student-trainees during work immersion, enhanced, and developed the skills of the non-skilled automotive students.

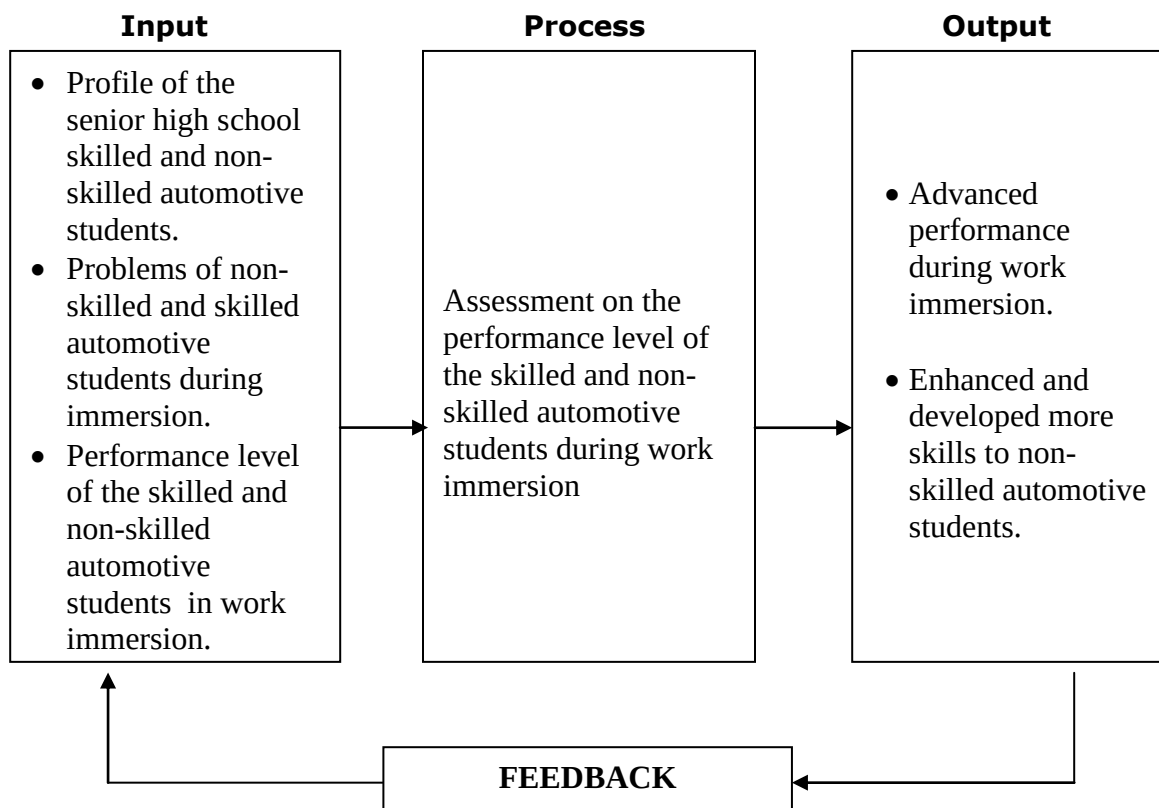


Figure 1. The Research Paradigm

METHODOLOGY

Research Design

The quantitative-comparative method was used in this study to determine the performance of the grade 12 skilled and non-skilled automotive students in Reina Mercedes Vocational and Industrial School.

Respondents of the Study

The study was conducted in Reina Mercedes Vocational and Industrial School. The data were gathered from the 59 grade 12 senior high school automotive students, 39 skilled and 20 non-skilled automotive students who underwent work immersion.

Total enumeration was employed in the identification of the respondents from the six sections grade 12 students in Reina Mercedes Vocational and Industrial School.

The distribution of the 59 respondents from the different sections is as follows: Grade 12 Mabini (11), Grade 12 Rizal (11), Grade 12 Jaena (10), Grade 12 Luna (8), Grade 12 Del Pilar (10), and Grade 12 Malvar (9).

Research Instrument

A survey questionnaire consisting of two parts was developed by the researchers for the purposes of the study. The first part focuses on the profile of the grade 12 skilled and non-skilled automotive students while the second part concentrates on the problems of the non-skilled and skilled automotive students during immersion and the performance of the skilled and non-skilled automotive students during work immersions.

Data Gathering Procedure

The data for this study were gathered using a self-administered questionnaire. This was personally conducted by the researchers with the respondents. The respondents were convened in the classroom and a briefing was conducted with the respondents before the questionnaires were floated so that everyone would have an equal understanding of the items to be accomplished in the questionnaires.

Statistical Tools

To describe the profile of the respondents and determine the difference of the performance level of the skilled and non-skilled automotive student during work immersion, frequency counts, percentages, and means were used.

To assess the level of performance of the grade 12 skilled and non-skilled automotive students during work immersion, Likert scales with corresponding quantitative range and adjectival description was used as follows:

Range	Descriptive Scale
4.20 – 5.00	Always
3.40 – 4.19	Oftentimes
2.60 – 3.39	Seldom
1.80 – 2.59	Rarely
1.00 – 1.79	Never

RESULTS AND DISCUSSIONS

This chapter presents the analysis and interpretation of the findings of the study on the assessment on the performance of skilled and non-skilled automotive students during immersion.

Profile of the Respondents

Age

Table 1. Age of the Respondents

Age	Frequency(n)	Percentage (%)
17	30	50.85
18	20	33.90
19	8	13.36
20	0	0.00
21	1	1.69
Total	59	100

On the data presented, majority of the respondents are 17 years old (30 or 50.85%). One of the respondents is 21 years old. This proves that in education, age does not matter.

Table 2. Type of Last School Attended

Last School Attended	f(n)	Percentage (%)
Integrated	15	25.42
National High School	5	8.47
Private	0	0.00
Vocational	39	66.10
Total	59	100

Table 2 presents that (39 or 66.10%) of the respondents are graduates of a vocational school while (15 or 25.42%) graduated in integrated school.

Immersion

Table 3 shows the problems encountered by the skilled automotive students during work immersion and it revealed that they rarely experienced the following: performing the ignition system, driving a car/ vehicle, naming the different parts of an engine, performing diesel engine tune up, and checking the air conditions of tires. On the other hand, the skilled automotive students never experienced a problem in diagnosing an engine, identifying the different parts of an engine and knowing the usage of different tools and equipment. It is worthy to note that the skilled automotive students who graduated from a vocational school rarely experience problems during work immersion.

Table 3. Problems Encountered by the Skilled Automotive Students during Work

Problems Encountered during Immersion	1	2	3	4	5	Mean	Interpretation
I don't know to perform ignition system	0%	6.49%	7.67%	4.72%	4.13%	2.17	Rarely
I can't drive a car/ vehicle	2.36%	4.72%	7.67%	4.72%	3.54%	2.09	Rarely
I can't name the different parts of an engine	3.54%	5.9%	4.72%	4.72%	4.13%	2.04	Rarely
I can't perform diesel engine tune up	2.95%	7.08%	5.31%	3.54%	4.13%	1.99	Rarely
I don't know how to check the air of tires if it is in good or bad situation	2.36%	8.26%	4.72%	3.54%	4.13%	1.98	Rarely
I can't perform the wiring system	2.36%	7.085	5.31%	5.9%	2.36%	1.98	Rarely
I don't know how to loosen and tighten bolts and knots of an engine	4.13%	5.9%	6.49%	3.54%	2.95%	1.91	Rarely
I can't perform gas engine tune up	2.95%	8.26%	5.31%	3.54%	2.95%	1.89	Rarely
I don't know how to use hydrometer tester in batteries	1.77%	8.85%	6.49%	4.72%	1.18%	1.86	Rarely
I don't know how to test an alternator if it is functioning	2.95%	7.67%	7.08%	3.54%	1.77%	1.84	Rarely
I can't identify the parts of an engine	4.13%	5.9%	8.26%	2.95%	1.77%	1.82	Rarely
I don't know how to diagnose an engine	0.59%	9.44%	10.03%	2.36%	0.59%	1.79	Never
I don't know the functions of the different parts of an engine	0.59%	10.03%	6.49%	4.72%	0.59%	1.79	Never
I don't know how to use the different kinds of tools	5.9%	5.9%	4.72%	5.9%	0.59%	1.76	Never

Table 4. Problems Encountered by the Non-skilled Automotive Students during Work Immersion

Problems Encountered During Immersion	1	2	3	4	5	Mean	Interpretation
I can't perform diesel engine tune up	1.18%	1.18%	5.9%	2.36%	1.18%	3.10	Seldom
I don't know how to use hydrometer tester in batteries	0%	3.54%	4.13%	4.13%	0%	3.05	Seldom
I can't perform gas engine tune up	0.59%	2.95%	4.13%	4.13%	0%	3.00	Seldom
I don't know to perform ignition system	1.77%	1.18%	5.9%	2.36%	0.59%	2.90	Seldom
I don't know how to check the air of tires if it is in good or bad situation	2.36%	4.13%	1.18%	1.18%	2.955	2.85	Seldom

I can't name the different parts of an engine	0.59%	2.95%	6.49%	1.77%	0%	2.80	Seldom
I can't perform the wiring system	1.18%	2.95%	4.72%	2.95%	0%	2.80	Seldom
I don't know the functions of the different parts of an engine	1.18%	2.95%	5.31%	2.36%	0%	2.75	Seldom
I don't know how to loosen and tighten bolts and knots of an engine	1.18%	2.95%	5.31%	2.36%	0%	2.75	Seldom
I don't know how to diagnose an engine	0.59%	4.72%	4.13%	2.36%	0%	2.70	Seldom
I can't identify the parts of an engine	0.59%	4.72%	4.72%	1.77%	0%	2.65	Seldom
I don't know how to test an alternator if it is functioning	0.59%	4.72%	5.31%	1.18%	0%	2.60	Seldom
I can't drive a car/ vehicle	1.18%	5.31%	4.72%	0.59%	0%	2.40	Rarely
I don't know how to use different kinds of tools	2.36%	5.31%	2.36%	1.77%	0%	2.30	Rarely

Table 4 presented the problems encountered by the non-skilled automotive students during work immersion and they seldom experienced the following: performing diesel engine tune up, using hydrometer tester in batteries, performing gas engine tune up, performing the ignition system, checking the air conditions of tires, naming, identifying, and performing the different parts of an engine, performing wiring system, testing an alternator and they rarely experienced driving a car/vehicle and using different kinds of tools. This shows that non-skilled students or non-graduate of a vocational school may experience problems during work immersion.

Table 5. Performance of the Skilled and Non-skilled Automotive Students during Work Immersion

Description	Skilled		Non-skilled	
Outstanding	30	76.92%	10	50%
Very Satisfactory	9	23.08%	10	50%
Satisfactory	0	0%	0	0%
Fairly Satisfactory	0	0%	0	0%
Did not Meet Expectations	0	0%	0	0%

The performance of the automotive students during their work immersion can be gleaned in table 5. It shows that at least seventy-five percent and fifty-percent of the skilled and non-skilled respondents performed with an outstanding performance respectively and almost twenty-five percent of the skilled automotive students got a very satisfactory performance while fifty percent for the non-skilled automotive students.

SUMMARY OF FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

Summary of Findings

Based on the presentation of the data, the researchers found the following:

1. Majority of the respondents are 17 years old (30 or 50.85%) and one of the respondents is 21 years old.

2. Two thirds of the respondents are graduates of a vocational school while (15 or 25.42%) graduated in integrated school.
3. The following problems are rarely experienced by the skilled automotive students: performing the ignition system, driving a car/ vehicle, naming the different parts of an engine, performing diesel engine tune up, and checking the air conditions of tires.
4. The non-skilled automotive students seldom experienced the following during work immersion: performing diesel engine tune up, using hydrometer tester in batteries, performing gas engine tune up, performing the ignition system, checking the air conditions of tires, naming, identifying, and performing the different parts of an engine, performing wiring system, testing an alternator.
5. Seventy-five percent and fifty-percent of the skilled and non-skilled respondents performed with an outstanding remark respectively and almost twenty-five percent of the skilled automotive students got a very satisfactory rating while fifty percent for the non-skilled automotive students.

Conclusions

After careful considerations of the findings of the study, the researchers concluded the followings:

1. Majority of the respondents are 17 years old.
2. Two thirds of the respondents are graduates of a vocational school while one fourth graduated in integrated school.
3. The skilled automotive students rarely experienced the following problems: performing the ignition system, driving a car/ vehicle, naming the different parts of an engine, performing diesel engine tune up, and checking the air conditions of tires.
4. The non-skilled automotive students seldom experienced the following during work immersion: performing diesel engine tune up, using hydrometer tester in batteries, performing gas engine tune up, performing the ignition system, checking the air conditions of tires, naming, identifying, and performing the different parts of an engine, performing wiring system, testing an alternator.
5. Seventy-five percent of the skilled automotive students performed with an outstanding performance and fifty percent for the non-skilled automotive students got a very satisfactory rating.

Recommendations

In view of the foregoing findings and conclusions, the following are recommended:

1. Non-skilled students or graduates of a non-vocational school should undergo bridging program and attend trainings and workshops to cope up with the competencies offered in a vocational school. Also, seek for assistance to the skilled students through peer or group sessions.

2. Skilled students should assist the non-skilled students during work immersion for them to perform better. Likewise, non-skilled students will ask assistance to the industry partner's personnel and staff for them to follow and perform the competencies needed.
3. The school administrators should consider the problems encountered both by the skilled and non-skilled students to provide an immediate and sustainable solution. Likewise, the work immersion coordinator and the technical and vocational teachers should visit the student-trainees regularly to get updated on how they performed the different competencies and what problems they have encountered to provide them assistance and immediate action regarding the matter.

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