

Comparative Study on the Implementation of Apprenticeship Viewed from the Perspective of Students and Employers

(Study of Aspects of Skill, Attitude, Implementation)

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Abstract—The lack of absorption of vocational school graduates in the business world and industry is the government's concern as one of the indicators of not achieving the goal of vocational education to prepare professional and character workers. This paper aims to understand Gap attitude, skills and the implementation of work practices that have been run according to the perspective of students compared with employers. The study was conducted by conducting surveys and interviews with students of the Computer Engineering Network SMK in Siak Regency, who have carried out the internship. Research results from 32 respondents of students and employers showed that the attitude of students was good with a difference of 2-8%, basic computer and printer skills were in accordance with the industrial business world but for the basic network and medium students and students were still weak, with a difference of 4 -22%, from the aspect of the implementation of students and students as well as the business world and industry said that it was good. In general, attitude training, the implementation of internship is good but it needs to improve the basic network skills. This research is useful for evaluation for educators and the government to establish appropriate patterns in education according to regional culture.

Keywords—internship; skill; attitude; comparation

I. INTRODUCTION

In accordance with the objectives of vocational secondary schools, namely to prepare students especially to work in certain fields [1]. SMK graduates are expected to be able to adjust to global competition and developments that have entered the 4.0 industrial revolution [2]. The fact explained, vocational education is still faced with the problem of high unemployment. BPS data shows that SMK accounts for 11.41 percent of the total open unemployment [3]. One of the factors that causes the absent of high school graduates is the incompatibility of school teaching programs with those in the workplace [4]. So far many schools are still using the supply driven approach and have not switched to the new demand driven paradigm so that the implementation of vocational high school students often faces the problem that what they get in school is very different from what they encounter in the good

workplace attitude, expertise learning in school is sometimes unused and tends to be different, this can affect their future efficacy. another factor is the management of laboratories during this is a problem in the district of Siak with the number of SMK students 7,110 people [5]. Students consider some teachers when in the implementation of the internship does not do well and they feel underserved.

Based on the description above, the main problem that will be explored in this study is how the internship process has been running well in terms of skill, attitude and management from the point of view of students so that the value of objectivity as a reference for schools and employers who carry out demand driven is obtained.

II. RESEARCH METHODS

This study uses a survey method with a descriptive approach with the ex-post facto method. Data collection was carried out through a survey of TKJ Vocational High School students in Siak District and an internship place where students carry out internships. The basic selection of students is chosen from vocational schools that have TKJ majors and have a large student population, while for internships, they are selected based on different types of businesses that are still related to the TKJ field. The principle of selecting research locations is based on two considerations, first, consideration of the representation of location and population. Second, consideration of the effectiveness of research implementation. Related to these considerations. In order to produce a sample that can represent the population in all research locations, the sampling technique uses purposive random sampling method.

While the aspect that becomes the focus of the research is how post-apprenticeship according to the student's perspective is compared with the perspective of the place of internship, from attitude (Communication, Cooperation, Independence, Creativity, Discipline), skill (computer and printer basis, network base and intermediate) and internship implementation (Management and coaching). The distribution and filling of questionnaires with online systems using the Google document

facility. To obtain the validity and reliability of the instrument used, firstly a trial (pretest) and expert judgment are carried out, to ascertain whether the instrument is an accurate and reliable measuring instrument. Validity shows how far a measuring device measures what you want to measure.

III. RESEARCH RESULTS AND DISCUSSION

Initial data obtained total number of respondents as many as 32 people from 4 vocational schools majoring in TKJ at different locations, and 4 worlds of industrial business. The identity of respondents the results of the study showed respondents male gender 17 people and women 15 people. The respondent's age is between 16-19 years. The scale used in attitude and skill assessment [6,7] is as follows.

- Very Good = SB (value range 81 – 100)
- Good = B (value range 66 – 80)
- Fair = C (value range 50 – 65)
- Less = K (value range 30 – 49)
- Very Less = SK (value range < 30)

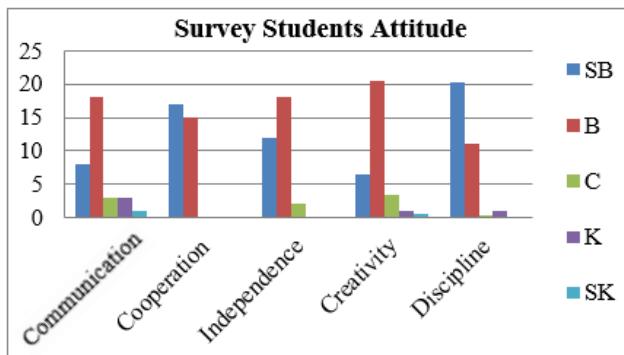


Fig. 1. Attitude survey according to students.

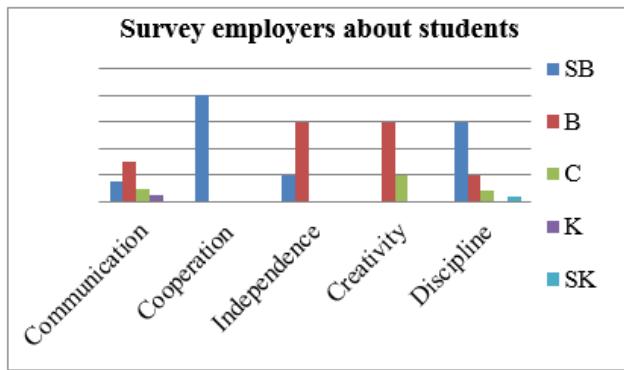


Fig. 2. Attitude survey according to employers.

A. Student Perspectives about Attitude

In the assessment of attitudes, students of SMK TKJ are divided into 5 factors: first, the ability to communicate both verbally and in writing, be able to use English the ability to

express ideas and be able to translate commands from mentors at the internship location both oral and written.

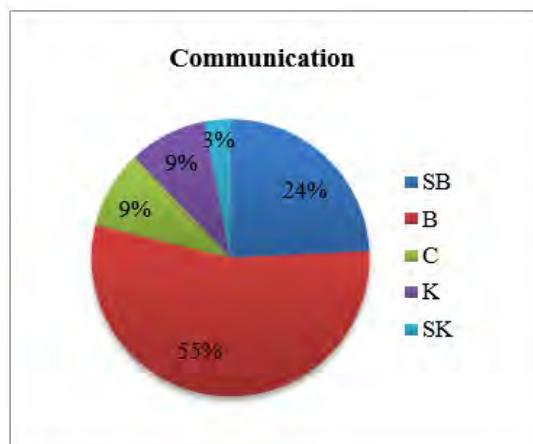


Fig. 3. Communication chart.

Second, the collaboration factor of students considers they are able to work in team work and are able to work on time.

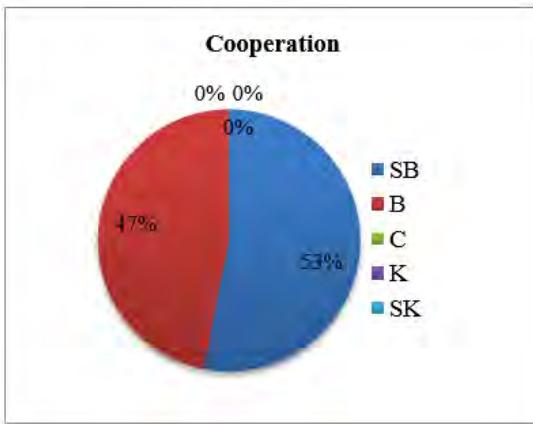


Fig. 4. Cooperation chart.

Third, the independence factor is able to work without supervision, has good self-confidence and can solve problems on its own initiative.

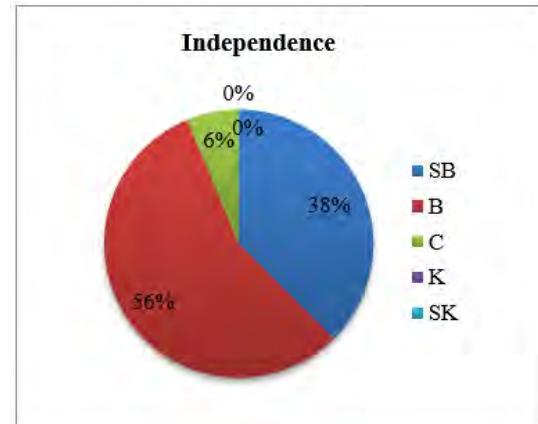


Fig. 5. Independence chart.

The fourth factor is students' creativity in using new ideas or techniques in solving problems.

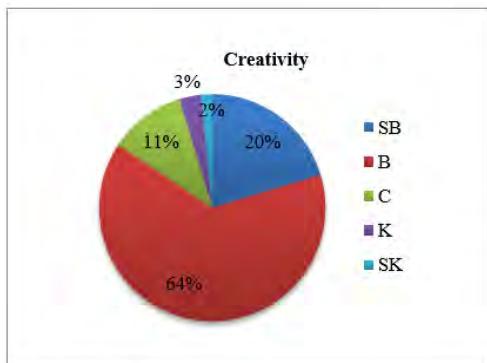


Fig. 6. Creativity chart.

While the fifth factor is discipline in time and attendance, and always tidy up the tools and workpieces used and always document what they are doing.

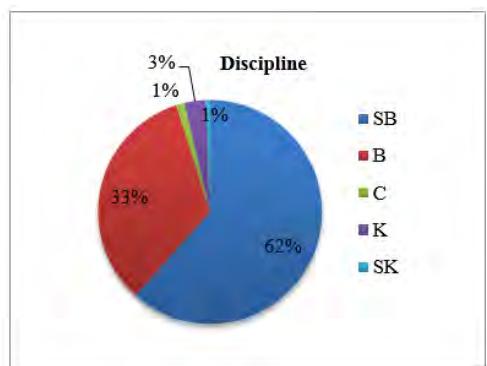


Fig. 7. Discipline chart.

From the results of a survey of employers on students who carry out the internship in their place from the first factor of communication ability.

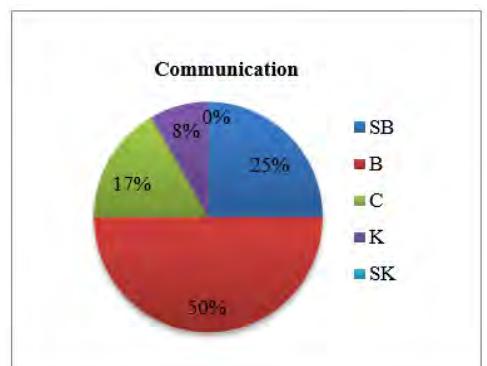


Fig. 8. Communication chart about students.

In general, students who have practiced well in communication verbally and in writing, are able to express ideas. The second factor of cooperation, the employers considers all students who carry out internships have very good cooperation.

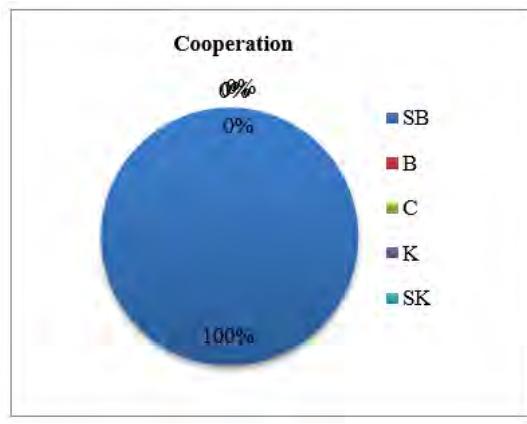


Fig. 9. Cooperation chart about students.

While the independence factor, the average student and student is good.

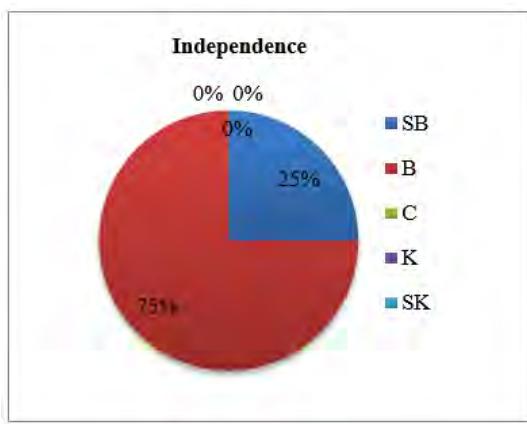


Fig. 10. Independence chart about students.

The factor of creativity of good students about 25% is still in a sufficient category.

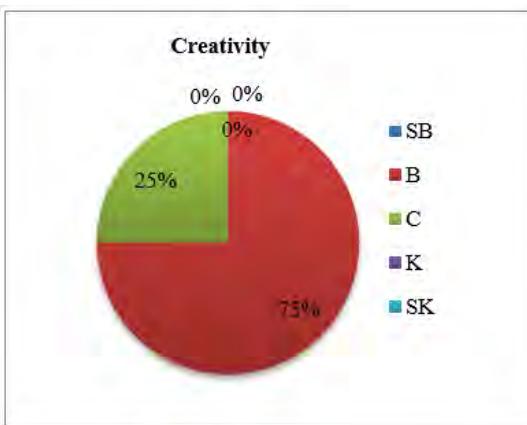


Fig. 11. Creativity chart about students.

The last factor of discipline is very good and only 4% of students are very lacking in discipline.

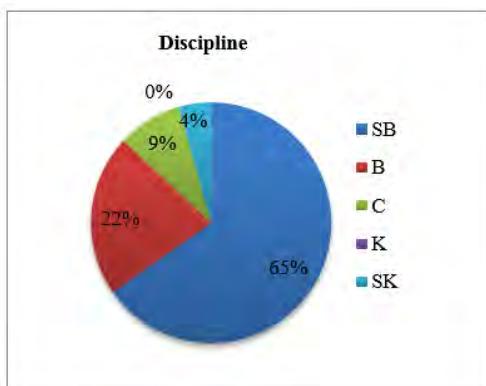


Fig. 12. Creativity chart about students.

B. Skills in Computer and Network Engineering (TKJ)

In general, TKJ students and students consider them in good category (66-80) in basic knowledge of computer equipment, installation, assembly, capable of using data processing software, doing trouble shooting and repairing computer and printer devices. computers are in the category of both designing and configuring, trouble shooting and simple network repairs, IP addressing and repair of medium scale WAN networks. The employer considers students and students in terms of computers and printers to be in the good category (66-80), while the knowledge of basic and secondary networks of employers considers students to be in sufficient category (50-65).

TABLE I. SKILL COMPARISON ACCORDING TO STUDENTS AND EMPLOYERS

NO	TKJ SKILL	Students	Employers
1	Basic computer and printer	B	B
2	Basic network and Medium	B	C

C. Management

In terms of the management of the average student considers the implementation of apprenticeship is good, the employer also considers the management of the apprenticeship from the administrative side is good indicated by the indicator students wear their respective school identities, wear complete practice attributes, and each student and student make a practice report, and often the tutor does monitoring. Employers from the survey results have directed students and students, guiding students, giving assignments according to their field of expertise.

TABLE II. COMPARISON ACCORDING TO STUDENTS AND EMPLOYERS ABOUT MANAGEMENT

NO	Aspects	Students	Employers
1	Management	B	B
2	Guidance	B	B

IV. CONCLUSION

From the results of the comparison of several indicators, Attitude according to the majority of students and employers is good, this shows that the training carried out in schools towards students who will carry out the internship is good and in accordance with what is desirable from the employer.

TABLE III. ATTITUDE CONCLUSION

Value Scale	Students	Employers
SB	39%	45%
B	51%	43%
C	6%	10%
K	3%	1%
SK	1%	1%

In terms of skill in the TKJ field, the basis of computers and printers is good according to students and employers, but in the basic and secondary networks shows different results where employers assume the need to improve students' skills so that they are in line with the wishes of the employer. there is an adjustment in the curriculum with industry in the form of demand-driven [8,9].

TABLE IV. SKILL CONCLUSION

Value Scale	Students	Employers
SB	10%	5%
B	53%	44%
C	24%	46%
K	9%	5%
SK	4%	0%

In terms of the implementation of both management and coaching done by employers and schools is good.

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