



ANALYSIS OF PRE-KWT COMPETENCY TEST FOR ALPHA CLASS PROGRAM STUDENTS

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Abstract

This study presents the results of the Pre-PKWT competency test analysis for Alfa Class program students. The purpose of this study was to conduct a study of program evaluation in the form of the Alfa Class Pre-PKWT competency test. Data were taken from three Alfamidi Class schools in the Bitung Branch, namely, SMKN 1 Tangerang, SMKN 15 Jakarta, and SMKN 47 Jakarta. The results showed that most of the students succeeded in achieving the expected competencies of the Alfa Class program where out of 135 students, 116 students or 85.92% passed the program. The findings show that the competence of male and female students is the same. Then from the three schools, SMKN 47 Jakarta has students with the highest competence and SMKN 1 Tangerang has students with the least competence. In terms of learning material, the average understanding of students can be said to have not reached competency standards. There are differences in the level of understanding of the material, as the findings show that students really understand material related to stores and services and have difficulty understanding material related to products, flow of goods, displays, SO & PDBH. It is necessary to evaluate the program both for the curriculum, monitoring the utilization of teaching factories, the learning methods and media used, and the development of a program assessment system.

Keyword: Program Analysis, Competency Test, Vocational High School.

1. Introduction

To examine problems, produce solutions, practice those solutions, assess, and manage them by considering all elements of learning, educational technology is a complex and interconnected process that combines people, processes, ideas, technologies, and organizations (Miarso, 2004). In the study of learning theory, interpersonal communication, and non-human learning resources, in order for learning to be more efficient, educational technology allows the application of technology in a structured manner in the planning, implementation, and evaluation of the entire learning process in the form of specific learning objectives. One of them is the use of learning program assessment in the implementation of learning by assessing the success and progress of achieving the learning goals that have been set.

One of the strategies of the Ministry of Education and Culture of the Republic of Indonesia, called "*Link and Match*", aims to make Vocational High Schools (SMK) more relevant to the skills needed by the world of work, especially the business world and the industrial world. The *link and match* program seeks to reduce the increasing percentage of unemployed graduates from secondary and high universities. In particular, the role and status of the education system in relation to employment issues must be considered to address the problem of unemployment (Robst, 1995). Based on this, it is necessary to improve the concept of *link and match* in order to create success and improve the quality of the industry, where the industry is towards competency-based development and vocational education.

To achieve this competency, a final competency test is needed that can measure whether students already have the expected competencies. An agreement on termination of employment

for a certain time or for a specific activity is known as a Fixed-Time Work Agreement (PKWT) (PP 35/2021). Students of the Alfa Class program will be recruited and undergo a selection process in class X and will run the program up to grade XII with a curriculum that has been carried out a *link and match* process between industrial competencies and the government curriculum. When students have completed the program, they will be absorbed to work at Alfamidi in a predetermined position.

The achievement of competencies that have been established by students in this scenario serves as an important part of the evaluation of the learning process. There are two types of assessment methods: test evaluation methods and non-test evaluation methods. The pre-PKWT competency exam of the Alfa Class program uses a testing strategy to measure students' ability to achieve predetermined learning goals (Priowuntato, 2020). In line with the opinion (Matondang & Sitompul, 2021), where in assessing student learning outcomes in terms of the cognitive domain, the test method is more often used.

Departing from this, it is necessary to conduct a study on the evaluation of the learning program or in this study, namely the pre-PKWT competency test of the Alfa Class program. This research was carried out by analyzing the results of the competency test of students of the Alfa Class program. The research data was taken from three Alfamidi Class schools in the Bitung branch, namely SMK Negeri 1 Tangerang, SMK Negeri, SMK Negeri 47 Jakarta, and SMK Negeri 15 Jakarta.

2. Method

Descriptive quantitative research methodology is applied in this study. The descriptive quantitative approach uses statistical tools to convey facts in the form of numbers with the aim of describing and explaining the phenomenon being studied. The analysis of the competency test for the business and online marketing department based on the Alfa Class program can be explained by the researcher thanks to this research method.

This research is located at SMK Negeri 1 Tangerang, SMK Negeri 47 Jakarta, and SMK Negeri 15 Jakarta. The subjects of this study are 1) Students at SMKN1 Tangerang consisting of 37 women and 15 men , 2) Students at SMKN 47 Jakarta consisting of 19 women and 18 men , 3) Students at SMKN 15 Tangerang consisting of 23 women and 20 men – Meanwhile, the object used by the researcher in this study is a Pre-PKWT competency test instrument developed by the Alfamidi vocational development team.

The data collection method for this study uses test questions. With the results of the test, the researcher gets information and directly processes the data. Data analysis was carried out by analyzing the results of the test questions that students had filled in. Then, a descriptive analysis was carried out to measure the level of competency achievement which would later be described by branch, gender-based, and based on school.

Table 1. Graduation Standards

	LEARNING MATERIALS	VALUE	
		PASS	NOT PASSING
		70-100	<70
PHASE 1	has. Introduction & Oritentation Brand Essence, Corporate Culture School Awareness, Information Security Management System For Store, Hygiene Standards, b.Service	Meet the program's passing criteria	Not meeting the program passing criteria

	Alfamidi Service, Crew Appearance Standards, Greeting Standards, Intonation, and Crew Gestures, Crew Service Ethics, Complaint Handling
PHASE 2	Product Knowledge, Handling Grocery, In Out Barang, Display, SO & PDBH
STEP 3	Duties and Responsibilities of Fresh Food Crew, Fresh Food Product Knowledge, Fresh Food Facilities, Fresh Food Display, Fresh Food Handling.
STEP 4	Cashier Activities and Administration, Cash Payments, Card Payments, Voucher Payments, Ponta, E-Wallet Payments, Fee Base

3. Results and Discussion

3.1 Result

The information provided in the study findings is an overview of information collected directly from the Alfamidi vocational development team. Using descriptive statistical methods, the data results are processed and displayed through tables and graphs. The frequency distribution, maximum score, lowest score, average score, median score, mode score, and standard deviation are generated after the data is analyzed using this method.

Statistics Descriptive

Table 2. Pre-PKWT Competency Test for Bitung Branch Students

Statistics		Value
N	Valid	135
	Missing	0
	Mean	79
	Median	82
	Mode	88
	Hours of deviation	11,0061
	Variance	121,134
	Range	65
	Maximum	96
	Minimum	31

Table 2 shows the *mean* or average score of the Pre-PKWT competency test for Students, which is 79 with a standard deviation of 11.0061 and a variant value of 121.134. The median

score obtained was 82. Then the mode value is 88. The maximum value obtained is 96 and the minimum value generated in the data is 31. Meanwhile, the *range* value in the students' pre-PKWT competency test is at 65.

Table 3. Pre-PKWT Competency Test for Students Based on Gender

Value	Gender	Statistics						
		Mean	Median	Variance	Maximum	Minimum	Range	Hours of deviation
	Man	77,62	84	174,2	90	31	59	13,19
	Woman	79,89	81	86,51	96	34	62	9,3

Based on gender, especially men and women, Table 3 displays data on the results of students' Pre-PKWT Competency Test. Based on these data, women's competencies are equivalent to men's competencies in terms of *mean* or average values. Female students have an average competency score of 77.62 while the competency value of female students is slightly higher, which is 79.89. The media value for the male sex was 84 and for the female was 81. The data shows that the value of male sex variation is 174.2, while the value of female sex variation is 86.51. The scores are 90 and 96 for men and women, respectively. Meanwhile, the minimum score obtained by male students is 31, while for female students is 34. The male gender was at a score of 59 and the female sex was 62 in the range of values. In addition, there is a difference in standard deviation based on gender, where males have a score of 13.19 and females have a score of 9.3.

Table 4. Pre-PKWT Competency Test for Students Based on School

Value	School	Statistics						
		Mean	Median	Variance	Maximum	Minimum	Range	Hours of deviation
	SMKN 1 Tangerang	73,4	74	111,85	92	42	50	10,57
	SMKN Jakarta	47 83,25	86	44,44	90	64	26	6,66
	SMKN Jakarta	15 81,81	84	145,29	96	32	65	12,05

In table 4 there is data showing the results of the pre-PKWT competency test based on school. There are 3 schools, namely SMKN 1 Tangerang, SMKN 47 Jakarta, SMKN 15 Jakarta. Of the three schools, data shows that the *highest mean* or average score of the pre-PKWT competency test is at SMKN 47 Jakarta with a score of 83.25, then SMKN 15 with a score of 81.81 and finally SMKN 1 Tangerang with a score of 73.4. In the middle or median score obtained from the pre-PKWT competency test, SMKN 1 Tangerang has a score of 74, then SMKN 47 Jakarta has a score of 86 and SMKN 15 Jakarta has a score of 84. For the value of the variants of 3 schools, there is a difference, namely SMKN 1 Tangerang at 111.85, then SMKN 47 Jakarta at 44.44 and SMKN 14 Jakarta at 145.29. From the three schools, they also produced maximum and minimum scores from data regarding the pre-PKWT competency test of different students. The highest maximum score was obtained by SMKN 15 Jakarta with a score of 96, and the second was SMKN

1 Tangerang with a score of 92, while SMKN 47 Jakarta was only at 90. The lowest minimum score is at SMKN 15 Jakarta with a score of 32, and above it is SMKN 1 Tangerang with a score of 42. Meanwhile, SMKN 47 Jakarta has a minimum score of 64. The range values in the three schools have differences, for SMKN 15 Jakarta at 65, SMKN 1 Tangerang at 50, and finally SMKN 47 Jakarta at 26. The standard deviation value at SMKN 15 Jakarta has a value of 12.05 and SMKN 1 Tangerang is 10.57. Then SMKN 47 Jakarta has a standard deviation value of 6.66.

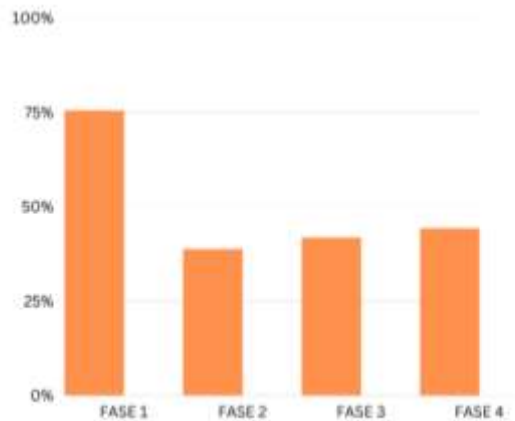


Figure 1. Graduation Chart of Learning Materials for Competency Test Questions

Figure 1 shows the graduation chart of the learning materials for the Pre-PKWT competency test questions from 135 students of the Alfa Class program. The learning materials in phase 1 have a success percentage of 75.4%, then in phase 2 it is at 38.67%, then in phase 3 the percentage of success obtained is 41.78%, while in phase 4 the percentage is 44.30%.

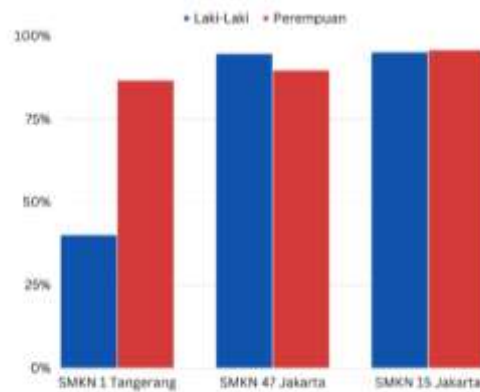


Figure 2. Competency Test Success Distribution Chart

Figure 2 shows the distribution or distribution of the success of the Pre-PKWT competency test questions from the three schools which are differentiated by gender. First, SMKN 1 Tangerang has 40% of male students and 86.48% of female students who pass the program. Second, SMKN 47 Jakarta has 94.5% male students who pass the program and 89.47% female students who pass the program. Third, SMKN 15 Jakarta has a percentage of male students who pass the program of 95% and female students of 95.65%.

3.2 Discussion

By holding the Pre-PKWT Competency Test for Students of the Alfa Class Program, this study seeks to determine the success rate of the program. This research was conducted by collecting questionnaire data from 135 students spread across three Bitung branch vocational schools in Alfamidi in 2022. The understanding of the material provided during the program has internal and external factors that will be variables for the level of competency acquisition. Based on previous research, the purpose of assessment in the learning process is to make decisions about learning, understand students, and improve and develop the curriculum. As a result, a plan will be developed using the study findings to improve the Alfa Class program in the future. In this study, the fulfillment of criteria for each learning material was not discussed in detail.

In this study, there were 50 questions given to students containing learning materials obtained during the program. All questions represent lessons that have been learned and have gone through a *link and match process* between the Alfa Class retail curriculum and the government education curriculum. The learning materials for online business majors and Alfa Class learning include, 1) PHASE 1: a. *Introduction & Orientation*, consisting of *Brand Essence, Corporate Culture School Awareness, Information Security Management System For Store, Hygiene Standards*; b. *Service*, which consists of *Service Alfamidi, Crew Appearance Standards, Greeting Standards, Intonation, and Crew Gestures, Crew Service Ethics, Handling Complaints*; 2) PHASE 2, which contains material on *Product Knowledge, Handling Grocery, In Out Goods, Display, SO & PDBH*; 3) PHASE 3, which has material on *Duties and Responsibilities of Fresh Food Crew, Product Knowledge Fresh Food, Fresh Food Facilities, Fresh Food Display, Fresh Food Handling*; 4) PHASE 4, which contains material on *Cashier Activities and Administration, Cash Payments, Card Payments, Voucher Payments, Ponta, E-Wallet Payments, Fee Base*.

Based on the statistics of table 2, the average Pre-PKWT competency test score of students enrolled in the Alfa Class Program is 79, with a standard deviation of 11.0061 and a variance of 121.134. In this example of a competency assessment program, competence is defined as a combination of knowledge, skills, values, and attitudes that are expressed in thoughts and actions (Mulyasa, 2021). Based on the information obtained, it can be concluded that the results of Alfa Class students who took the pre-PKWT competency test have quite good competence. This is because the average score produced exceeds the minimum limit of 70 (79).

In addition, table 3 of the data from the Pre-PKWT Competency Test results will be reviewed which is detailed based on the gender of the students of the Alfa Class program. The table shows that there is a not significant difference in the average score of the competency test results of male and female students. The average score of the female competency test was 79.89, while the male was 77.62. This data displays values that are not much different. With regard to research that reveals that social needs distinguish between factors in the learning behavior of men and women as well as their ability and beliefs about achievable goals. In contrast to the results of the study, which according to (Ningsih, 2021) about learning motivation based on gender show that there is a striking difference in learning motivation between male and female students, with women being more motivated to learn than men. Based on the findings, it can be concluded that the competence between male and female students is the same.

Furthermore, it will be discussed about the results of table 4, namely the competency test scores for Pre-PKWT Students of the Alfa Class Program based on school. From the table, it can be seen that the average scores of student competency tests based on SMKN 1 Tangerang, SMKN 47 Jakarta, and SMKN 15 Jakarta have different numbers. The competency test score of SMKN

47 Jakarta was 83.25, then SMKN 15 with a score of 81.81 while the average score of SMKN 1 Tangerang was 73.4. This data shows that the difference in terms of grades by school is different, especially at SMKN 1 Tangerang which has the largest gap with SMKN 45 Jakarta and SMKN 15 Jakarta. Of the highest maximum score obtained by each school, SMKN 15 Jakarta is 96, and the second is SMKN 1 Tangerang is 92, while SMKN 47 Jakarta is only at 90. The natural environment, residence or family, *peer group*, and community are all part of the student environment that can affect learning motivation (Syam dkk., 2022). Students' enthusiasm for learning increases when their friends are enthusiastic or motivated to learn. On the other hand, when the environment around friends is less supportive, it can interfere with focus and desire to learn.

Furthermore, regarding the discussion of the results of the graph in figure 1, namely the passing of the learning material for the Pre-PKWT competency test for Alfa Class Program students. The graph shows the success of students in understanding the program's learning materials in phase 1, phase 2, phase 3, and phase 4. Phase 1 learning materials have a success rate of 75.4%, then phase 2 has a success rate of 38.67%, then in phase 3 it is 41.78%, and in phase 4 it has a percentage of 44.30%. The Pre-PKWT competency test questions for Alfa Class Program students have a distribution of competencies that are divided into several levels of competence. This is in line with the standardization of degree competencies (in Santiyadnya, N., 2011) which is divided into minimum competency standards (micro competencies), intermediate competency standards (*mezzo* competencies), in-depth competency standards (macro competencies), and specialist competency standards. These findings show that program students tend to understand the learning materials provided at the beginning of the program or phase 1, namely *introduction*, *orientation*, and *service* materials. In addition, students have the highest level of difficulty to understand in phase 2 learning materials which contain *product knowledge*, *handling grocery*, in out goods, display, SO & PDBH.

Then, it will be discussed about the graph in figure 2, namely the distribution of the success of the Pre-PKWT competency test questions for Alfa Class Program Students which are differentiated based on gender. Male and female students are separated into different groups, and they naturally have different physiological and psychological traits (Restian, 2020). From the graph, female students tend to contribute higher program graduation rates compared to male students. SMKN 47 Jakarta and SMKN 15 Jakarta have students with the same competencies. Meanwhile, male students from SMKN 1 Tangerang have minimal competence compared to female students.

At the end of each learning process or the end of the program, a tool is needed that is able to measure the success rate of the learning program. Later, the results of the evaluation can be used as a reference in taking the next steps for the program, estimating the impact of the program, as well as improving the program in the future. (Madaus et al., 1983) developed a model of evaluation of learning programs known as the formative-summative model. Where this model has a scope of objects and stages that are evaluated. First, the evaluation is carried out when the program is still running or known as formative evaluation. Second, the evaluation is carried out at the end of the program or when the program has ended, which is known as summative evaluation.

Departing from this, adjusting the focus of research, the Pre-PKWT competency test conducted on students in the Alfa Class program is a representation of summative evaluation. The purpose of this competency test is to measure the success rate of the program. The findings

in this study show that most of the students of the Alfa Class program have achieved the competencies expected by the industrial world. Many factors affect the success of students in achieving the competencies that have been determined, such as curriculum, facilities and infrastructure, learning methods and media, and assessment systems.

Based on the description above, it can be concluded that the Pre-PKWT competency test of the Alfa Class Program has a high success rate. This was obtained from the analysis of data on the Pre-PKWT competency test that had been developed by the Alfamidi vocational development team. The success of this competency test represents that the concept of *link and match* between DUDI and SMK, in this case Alfamidi Class, has been designed and implemented well. Even if schools are located in close proximity or in the same area and run the same program, it does not mean that the output produced by the program in each school will be the same. External factors such as the environment, learning methods and media used, and the use of grants given in the form of *business centers* allow for an influence on student motivation (internal factors) in understanding the learning provided.

4. Conclusion

Vocational school graduates are professionals who are skilled in their professions who are required to have competencies that are in accordance with the abilities needed in the world of work. So that vocational schools can graduate personnel with qualifications that meet the requirements of DUDI. DUDI must also be effectively involved in the implementation of these competency exams so that the tools used are relevant to the necessary credentials and must comply with the specific standards set by DUDI.

The implementation of the Pre-PKWT competency test for the Alfa Class Program is fairly effective and able to represent the success of students in completing the program. Based on the results obtained from the research in the form of a summative evaluation test developed by the Alfamidi vocational development team, most of the students managed to achieve the competencies expected by the program. When compared between the three schools in the Bitung branch, SMKN 47 Jakarta has the highest competency students when compared to SMKN 15 Jakarta and SMKN 1 Tangerang. Meanwhile, SMKN 1 Tangerang has students with the least competence when compared to the other two vocational schools. In addition, based on the data obtained, graduates from SMKN 47 Jakarta and SMKN 15 Jakarta are both competent when serving *customers*. Meanwhile, male graduates from SMKN 1 Tangerang are likely to have less competence compared to female graduates, even though these two genders graduated from the same school.

Overall, it can be concluded that the understanding of the students of the Alfa Class program on the learning materials provided, both in phase 1 to phase 4, can be said to have not met the expected competencies. Then, graduates of the Alfa Class program have a good understanding, especially if problems related to general things such as *store and service are encountered*. Most likely, if later program graduates will be less responsive when facing problems related to products, the flow of goods coming to the exit, *display*, SO & PDBH.

The success rate of the Pre-PKWT competency test for Alfa Class Program Students is quite high. It is necessary to conduct a review of the program both on the curriculum, monitoring the use of *teaching factories*, learning methods and media used, and the development of a program assessment system.

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