# The Effect of Learning Outcomes of Catering, Experience of Field Work Practices and Infrastructure on the Results of Competency Certification Tests (Studies at Vocational High Schools in Malang Regency)

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# Abstract

The purpose of this study was to describe the variables of the Learning Outcomes of Catering, Field Work Practice Experience, Facilities and Infrastructure to the Competency Certification Test Results. Analyzing the effect of the variable on culinary learning outcomes simultaneously on the results of the competency certification test. Analyzing the field work experience variables partially on the results of the competency certification test, as well as analyzing the learning outcomes that have a dominant effect on the results of the certification test. The population in this study was students of the Culinary Skills Competency Vocational School in Malang Regency who took the competency certification test through the Professional Certification Institute with a total of 93 students. The sampling technique in this study used the questionnaire method. The data analysis technique used in this research is multiple linear regression analysis. The results of the study indicate that the learning outcomes of culinary arts, practical experience of field work and infrastructure facilities simultaneously have a significant effect on the results of the competency certification test. The results of learning culinary arts, field work experience and infrastructure partially have a significant positive effect on the results of competency certification tests for vocational students in Malang Regency. The most dominant variable influencing the results of competency certification tests for vocational students in Malang Regency is the result of learning culinary arts. Field work experience and infrastructure partially have a significant positive effect on the results of competency certification tests for vocational students in Malang Regency. The most dominant variable influencing the results of competency certification tests for vocational students in Malang Regency is the result of learning culinary arts. Field work experience and infrastructure partially have a significant positive effect on the results of competency certification tests for vocational students in Malang Regency. The most dominant variable influencing the results of competency certification tests for vocational students in Malang Regency is the result of learning culinary arts. The most dominant variable influencing the results of competency certification tests for vocational students in Malang Regency is the result of learning culinary arts. Field work experience and infrastructure partially have a significant positive effect on the results of competency certification tests for vocational students in Malang Regency. The most dominant variable influencing the results of competency certification tests for vocational students in Malang Regency is the result of learning culinary arts. The most dominant variable influencing the results of competency certification tests for vocational students in Malang Regency is the result of learning culinary arts. Field work experience and infrastructure partially have a significant positive effect on the results of competency certification tests for vocational students in Malang Regency. The most dominant variable influencing the results of competency certification tests for vocational students in Malang Regency is the result of learning culinary arts.

Keywords: Learning outcomes, field work practices, infrastructure and competency certification test results

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## I. Introduction

Vocational education basically aims to help students achieve and develop job skills so that they can adapt because industry requires trained, skilled, educated and trained personnel. Another factor that affects the mastery of student competencies is learning outcomes. The learning outcomes of the Catering subject are the acquisition of knowledge and skills obtained by vocational school students majoring in culinary arts. The success of students in mastering culinary subjects is indicated by the average value of the components of the productive culinary subjects that have met the Minimum Completeness Criteria. The value of students has met the KKM standards set by the school, it is expected to support the results of the competency certification test because they already understand the components of productive subjects.

Based on Regulation(Ministery of education and cuture, 2018)The Director General of Primary and Secondary Education of the Ministry of Education and Culture Number 07/D.D5/KK/2018 concerning the Curriculum Structure of Vocational High Schools/Madrasah Aliyah Vocational Schools there are three groups of subjects, namely group A (National Content), group A (National Content), group B (Regional Content) and group C (Vocational Specialization Content). In group C (Vocational Specialization Content) there are three groups, namely C1 for Basic Expertise, C2 for Basic Skills Program and C3 for Expertise Competence.

Previous research by(Anjani et al., 2016), shows learning to process hot and cold appetizers or salads until they are ready for the competency test at the processing stage with a standard percentage of 70% readiness, as a preparatory test for continental food competence, more than some students master the material and are said to be ready to take the competency test. Research conducted by(Surokim, 2016)PKL experience affects the willingness to work, this is evidenced by the results of the analysis which shows a significant regression value / p = 0.0000. In research(Narti et al., nd), motivation and field work practice, practical learningpartly used in preparation for student work, based on the calculation results of each independent variable with a t-test significance of 0.05. Thus it can be concluded that the variables of motivation, field work practices and facilities have a significant effect on student work motivation.

Vocational High Schools in Malang Regency, East Java Province that have culinary expertise competencies and conduct competency certification tests with certification bodies, namely: (1) Vocational High Schools Turen, (2) Vocational High SchoolsAn-NurBululawang, (3) Vocational High 1 SchoolsBabbussalamPagelaran. The curriculum program on the culinary expertise competency contains a number of productive subjects tailored to the needs of the world of work/industry, namely the basic skills program consisting of subjects of Food Safety (Sanitation Hygiene And Occupational Safety), Knowledge of Food Ingredients, Basic Catering and Nutrition Science, while for the subject of expertise competence consists of subjects of Dishes, Food Processing and Serving, Indonesian Cake and Cake Products, Pastry and Bakery Products and Creative Products and Entrepreneurship. Productive subjects (C3 group of competency skills) are subjects that will be tested for competency certification as a graduation requirement. In learning, students get practical and theoretical lessons with a ratio of 60% practice and 40% theory lessons. Skill competency development refers to the SKKNI (Indonesian National Work Competency Standard) for Indonesian hotels and restaurants nationally and ASEAN.

Knowledge is one aspect of achieving student learning outcomes in a competency-based curriculum. According to Sudjana in(Anjani et al., 2016)Learning outcomes are "skills that a person has after gaining educational experience. Learning outcomes are the ultimate goal of implementing learning activities in schools. Learning outcomes are changes in behavior that include the cognitive, affective and psychomotor domains that students have after completing a learning experience (Magdalena, et al., 2020). Student learning outcomes are a series of variables which are the result of teaching and learning interactions in the classroom.

The success of the teaching and learning process for skills/practices is strongly supported by the availability of practicum facilities and infrastructure in schools. These infrastructure facilities include the availability of a practice laboratory along with the equipment needed, ranging from preparation plates, food processing equipment, and food serving equipment. If all that is available then the practical learning process will run smoothly.

The curriculum studied by SMK students includes an internship program or Field Work Practice (PKL). PKL is a direct job training model that applies the skills learned in school and gains practical experience and produces quality graduates according to their field of interest. The implementation of PKL is applied to students at the XI class level in the world of work who have collaborated according to the existing expertise competencies. For the competence of culinary expertise, the world of work that is a partner for street vendors includes hotels, restaurants or restaurants.

A series of learning evaluations that must be taken by students before being declared graduated from the Education unit is the skill competency test (UKK). Based on(Kemendikbud, nd)guidelines for the implementation of the vocational skills competency test for the 2021/2022 academic year, the skill competency test (UKK) is an assessment held specifically for vocational students to measure the achievement of student competencies that are equivalent to level 2 (two) or 3 (three) qualifications in the National Qualifications Framework Indonesia (KKNI). UKK is carried out at the end of the study period by a Competency Certification Institute or an accredited education unit with partners in the world of work. UKK results for students will be an indicator of the achievement of graduate competency standards. For schools that do not have LSPs, they can implement UKK if they are members of a network/alliance of one of the Professional Certification Institutions that have been established by Ditpsmk or the Provincial Education Office.

Indicators of certification test results through the Professional Certification Institute according to (BNSP 301\_Guidelines for Implementation of Competency Assessment, 2013) in the form of competent (K)

and not yet competent (BK) predicates. To achieve competent results, students must take the entire series of certification tests in accordance with the certification scheme and be declared competent in all existing competency units. Students can achieve competent results if in the learning process they get competent results in accordance with the KKM, mastery learning can be achieved if supported by adequate practical facilities and supported by practical field work experience.

Based on the description above, it is necessary to do research on "The Influence of Learning Outcomes of Catering Subjects, Field Work Practice Experiences and Infrastructure Facilities on Competency Certification Test Results (Studies at Vocational Schools in Malang Regency)".

# **II. LITERATURE REVIEW**

#### 1. Expertise Competency Certification Test

Competency certification is the process of providing competency certificates that are carried out systematically and objectively through certification tests in accordance with the Indonesian National Work Competency Standards (SKKNI), international standards and/or special standards. At the SMK level, the implementation of the certification test refers to the certification scheme according to the SKKNI for each competency. The certification scheme is a set of competencies and specific specific requirements related to the category of position (occupation) or special skills of the examinee (assessment),(Kemendikbud, nd). Indicators of the success of the implementation of the certification test can be seen from the results of the assessment report that recommends competent students/assessments. Based on(KKNI Level & II Scheme, 2018)Competent recommendations are given if they meet the registration requirements, complete the entire series of assessments in all competency units. The KKNI Level II Certification Scheme on Culinary Skills Competence consists of thrity-eight units that can be reached using a cluster approach, namely the Continental Food Manufacturing Cluster, the Indonesian Food Manufacturing Cluster, the Pastry Product Manufacturing Cluster, the Bakery Product Manufacturing Cluster and the Food and Drink Service Cluster. The cluster approach in question is that the competency certification test can be carried out starting from class X to class XII as evidenced by a skill passport.

#### 2. Learning Outcomes

Learning outcomes are all changes in cognitive, affective and psychomotor aspects that occur in students after experiencing a learning experience(Lestari & Siwanto, 2015). Disclosure of learning outcomes basically covers all psychological domains that change throughout the student's experience and learning process. Achievement of KKM (Minimum Completeness Criteria) in C2 subjects (food safety/sanitary hygiene and work safety, knowledge of food ingredients, basic cooking and nutrition) can be used to measure the success or failure of mastery of these subjects, C3 subjects (dishes, processing and presentation of food, Indonesian cake and pastry products, pastry and bakery products and creative and entrepreneurial products) is determined by the school.

## 3. Field Work Practice Experience

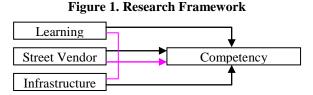
Field Work Practice (PKL) is a form of professional skills education training that is systematically and synchronously combined with educational programs in schools and programs to acquire skills acquired through direct activities in the world of work.(Lestari & Siwanto, 2015). PKL indicators include strengthening learning outcomes, environmental recognition, environmental appreciation, attitude formation, having skills and abilities that are in accordance with specialization(Surokim, 2016).

#### 4. Definition of Infrastructure

Infrastructure is an indirect means to achieve educational goals (locations, school buildings). Facilities are defined as direct tools (rooms, books, laboratories) to achieve educational goals(Kartika et al., 2019). Based on(PBNSP 214\_TUK Verification, 2013)indicators of facilities and infrastructure used in the competency certification test, namely the infrastructure for the competency test and the facilities for the competency test.

## III. RESEARCH CONCEPTUAL FRAMEWORK

The complete framework for this research can be seen in the image below.



From Figure 1 above, it can be seen the relationship between variables that explain the effect of culinary learning outcomes, PKL experience, and infrastructure on the results of the competency certification test. The

independent variable is the learning outcomes of culinary arts (X1), the experience of street vendors (X2), and infrastructure (X3), while the dependent variable is the result of the competency certification test (Y)

## **IV. RESEARCH METHODS**

This study uses a quantitative approach with a descriptive method, while the research design is correlational. This research was conducted in three vocational education institutions in Malang Regency, namely SMKN 1 Turen, SMK An-Nur Bululawang, and SMK Babbussalam Pagelaran. The population in this study was class XII students of Culinary Skills Competence from three SMKs in Malang Regency, namely SMKN 1 Turen (68 students), SMK An-Nur Bululawang (12 students), and SMK Babbussalam Pagelaran (13 students), totaling 93 students. The sampling technique uses total sampling so that all members of the population are selected and set as samples. Data collection techniques using questionnaires or questionnaires. Data analysis was carried out statistically through the SPSS program with multiple linear regression analysis techniques (Respati,2008).

# V. RESULTS AND DISCUSSION

1. Results of Multiple Linear Regression Analysis

The following table describes the results of multiple linear regression analysis processed using a computer program (SPSS).

Table 1. Summary of F/ Test ResultsAnova

			Ar	iova	a <sup>b</sup>			
M	lodel	Sun Sque	ı of	df	Mear Squar	· F	Sig	
1 Re	egression			3	238,15		30 0.000	Da
	Residual	1960		89	22.02			
	Total		,989	92				
a. Pre	dictors:	(Consta	nt), Sa	rpra	as, TB l	earning o	outcomes	,
	experien							
b. De	pendent	Variabl	e: Con	npet	tency te	st results		
Table 2. Su	mmary	of Mult	tiple L	ine	ar Regi	ression A	analysis 1	Results
Coefficientsa								
Model	Unstand.		Stand	Stands.				Adjusted
	coef.		coej	f.	Sig.	R	R	R
	В	Std. Error	Beta	a	Sig.	n	Square	Square
(Constant)	7.107	5.442			0.014			
Learning	0.524	0.137	0.51	5	0.000			
outcomes of								
culinary arts								
(X1)								
Street	0.165	0.109	0.22	1	0.013	0.817a	0.672	0.542
Vendor								
Experience								
(X2)								
Infrastructure	0.121	0.092	0.16	2	0.025			

From Table 1 above, it is known that the value of Sig F (0.000) < 0.05. Thus, it can be concluded that the learning outcomes of culinary arts, practical experience of field work, and infrastructure facilities simultaneously have a significant effect on the results of competency certification tests for vocational students in Malang Regency.

Based on the data listed in Table 2 above, the regression equation can be arranged, as follows:

a. Dependent Variable: Competency certification test results (Y)

Y = 7.107 + 0.515 + 0.221 + 0.162 +

(X3)

From Table 2 it is known that the coefficient 1X1 is 0.515 (sig. 0.000), which explains the direct and positive influence of the culinary learning outcomes on the competency certification test results for SMK students in Malang Regency, meaning that the better the culinary learning outcomes, the higher the test results. student

competency certification. The coefficient 2X2 0.221 (sig. 0.013), which explains the unidirectional and positive influence of the PKL experience on the results of the competency certification test for SMK students in Malang Regency, meaning that the better the PKL experience, the higher the student competency certification test results. The coefficient 3X3 0.162 (sig. 0.025), which explains the unidirectional and positive influence of infrastructure on the results of the competency certification test of SMK students in Malang Regency,

From Table 2, it is also known that the variable of culinary learning outcomes  $(X_1)$  is the independent variable that has the largest Beta coefficient value (0.515) compared to other independent variables. This explains that the learning outcomes of culinary arts have a dominant effect on the results of the competency certification test for SMK students in Malang Regency, because they have the largest ranking of regression coefficient values, followed by the experience of street vendors and infrastructure.

### 2. Discussion

The results of learning culinary arts have a significant positive effect on the results of competency certification tests for vocational students in Malang Regency. That is, the better the learning outcomes of culinary arts, the better the results of the student competency certification test. The student's culinary learning outcomes are good, which is formed by being competent in C2 subjects and competent in C3 subjects. The main thing that shapes the culinary learning outcomes of SMK students in Malang Regency is competence in C2 subjects, which is reflected in the questionnaire responses of the majority of students who stated that they received a competent predicate in the subject of food knowledge. This is in accordance with the opinion of Jannah&Arfandi (2020) which states that one of the proofs if a student has good learning outcomes is seen from changes in aspects of knowledge and behavior. Students who have good learning outcomes are definitely able to master the competencies of the subjects they have learned. This is supported by the research results of Jannah&Arfandi (2020), Ulya&Bahri (2018), Prasetyo (2017), and Anjani, et al. (2016) which proves that there is a significant positive effect on the learning outcomes of productive subjects on the results of the student's skill competency test. et al. (2016) which proves that there is a significant positive effect on the learning outcomes of productive subjects on the results of the student's skill competency test. et al. (2016) which proves that there is a significant positive effect on the learning outcomes of productive subjects on the results of the student's skill competency test.

Experience of Field Work Practice (PKL) has a significant positive effect on the results of competency certification tests for vocational students in Malang Regency. That is, the better the experience of street vendors, the better the results of the student competency certification test. The PKL experience of SMK students in Malang Regency is good, which is formed by strengthening learning outcomes, environmental experience, environmental appreciation, attitude formation, as well as skills and abilities according to their fields. The main thing that shapes the PKL experience of SMK students in Malang Regency is the formation of attitudes, which is reflected in the questionnaire responses of the majority of students who stated that PKL taught them to be discipline at work. This is in accordance with the opinion of Jannah&Arfandi (2020) which states that discipline is one of the most important aspects for a person in relation to successfully completing a job. Without having high discipline, it will be difficult for everyone to complete the work according to the target. This is supported by the research results of Jannah&Arfandi (2020), Ulya&Bahri (2018), and Surokim (2016) which prove that the experience of street vendors has a significant positive effect on students' work readiness (readiness for competency certification tests).

Facilities and infrastructure have a significant positive effect on the results of competency certification tests for vocational students in Malang Regency. That is, the more complete the infrastructure, the more the results of the student competency certification test can be improved. The facilities and infrastructure of SMK in Malang Regency are good, which are formed by adequate classrooms, industrial standard laboratories, availability of practical materials, and laboratories referring to TUK requirements. The main thing that forms the infrastructure of SMK in Malang Regency is the existence of an industrial standard laboratory, which is reflected in the questionnaire responses of the majority of students who stated that the laboratory in their school has food and beverage processing equipment. This is in accordance with Kartika, et al. (2019) which states that the laboratory is a place for practical activities which is one of the goals of theoretical learning that can determine students' understanding by mastering the practice of the skills occupied, the activities carried out aim to provide an overview of actual or concrete activities. This is supported by the research results of Kartika, et al. (2019) which proves that the quality of facilities and infrastructure clearly has a significant positive impact on the results of student competency tests.

# VI. CONCLUSION

The culinary learning outcomes of SMK students in Malang Regency are good, which is formed by being competent in C2 subjects and competent in C3 subjects. The main thing that shapes the student's culinary learning outcomes there is competence in the C2 subject, which is reflected in the majority of students getting a

competent predicate in the subject of food knowledge. The PKL experience of SMK students in Malang Regency is good, which is formed by strengthening learning outcomes, environmental experience, environmental appreciation, attitude formation, as well as skills and abilities according to their fields. The main thing that shapes the students' PKL experience there is the formation of attitudes, which is reflected in the majority of students stating that PKL teaches them to be disciplined in doing their work. The facilities and infrastructure of SMK in Malang Regency are adequate or complete, which are formed by adequate classrooms, industrial standard laboratories, availability of practical materials, and laboratories referring to the requirements of the Competency Test Place (TUK). The main thing that makes up the completeness of the SMK infrastructure there is an industrial standard laboratory, which is reflected in the majority of students stating that the laboratory at their school has food and beverage processing equipment. The results of the competency certification test for SMK students in Malang Regency are good, which is formed by the predicate of competent and not yet competent. The main thing that shapes the results of the student competency certification test for SMK students in thing that shapes the results of the student competency certification test there is the competency predicate, which is reflected in the majority of students registering and collecting supporting evidence for the competency certification test.

The results of learning culinary arts, practical experience of field work, and infrastructure simultaneously have a significant effect on the results of competency certification tests for vocational students in Malang Regency. Standard must be determined to achieve some competency (Respati et al, 2013). The results of learning culinary arts, practical experience of field work, and infrastructure partially have a significant positive effect on the results of competency certification tests for vocational students in Malang Regency. That is, the better the learning outcomes of culinary arts and the experience of street vendors, which are supported by the completeness of industrial-standard infrastructure, the better the results of the student competency certification tests. The most dominant variable affecting the results of competency certification tests for SMK students in Malang Regency is the result of learning culinary arts, because it has the largest rank of regression coefficient value,

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