## The Influence of Communication Skills on the Work Readiness of Vocational School Students in Building Engineering Expertise

Wahyu Dwi Mulyono, Universitas Negeri Surabaya, Indonesia Suparji, Universitas Negeri Surabaya, Indonesia
Arie Wardhono, Universitas Negeri Surabaya, Indonesia
Bambang Suprianto, Universitas Negeri Surabaya, Indonesia
I Gusti Putu Asto Buditjahjanto, Universitas Negeri Surabaya, Indonesia

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#### Abstract

Vocational high schools (SMK) have a goal to produce graduates who are ready to work. The problem that occurs is the high level of open unemployment (TPT) for vocational school graduates in Indonesia, especially in the city of Surabaya. An important aspect of producing graduates who can compete and succeed in work in the world of work is job readiness. SMK graduates are declared to have high work readiness if they already have the skills needed by the world of work. One of the skills that must be possessed is communication skills. The aims of this research are as follows. (1) To analyze the communication skills possessed by SMK students; (2) To analyze the effect of communication skills on the job readiness of SMK students. This is correlational research. The population of this research is all students of SMK in the field of Building Engineering in the city of Surabaya. The sampling technique used is purposive sampling, which is taken as a sample of class XII students of SMK Negeri 2 Surabaya, SMK Negeri 3 Surabaya, and SMK Negeri 7 Surabaya. Data collection techniques using questionnaires and data analysis using linear regression. The expected results of this study are as follows. (1) The communication skills that students have from the highest to the lowest consist of written communication skills, listening skills, visual communication skills, dan oral communication skills; (2) Communication skills have a positive influence on the job readiness of SMK students.

Keywords: Communication Skills, Work Readiness, Vocational Students, Building Engineering



## Introduction

Vocational high school (SMK) is a secondary-level education that provides knowledge and skills according to a particular field of work (Baitullah & Wagiran, 2019; Lawitta et al., 2017). Vocational High Schools must be able to produce graduates who are independent and have expertise or competence in certain fields of work (Estriyanto et al., 2017). Graduates are expected not only to find work but to create their jobs. The main goal of vocational education is to create graduates who are ready to work (Lawitta et al., 2017). Vocational education provides specific training that is produced with guidance from teachers to develop skills in certain industrial fields. Vocational education motivates students to improve their skills so that after graduation they can work and generate profits in the economic field (Pavlova, 2009). Vocational education aims to identify the type of work that is suitable for individuals and to help develop work capacity to make it more effective (Billet, 2011).

The challenge for Vocational Schools is the change in skills needed by industry, especially what is happening in the 21st century (Ayaz & Karacan Özdemir, 2021). The 21st century is a century of change which is also known as the century of information technology, globalization, industrial revolution 4.0, and so on. Changes in the 21st century occur very quickly and are difficult to predict and occur in all aspects of life. Changes that take place very quickly can provide opportunities if they can be utilized properly, but can also become serious threats if they are not properly anticipated (Oviawe et al., 2017; Wibawa & Moses, 2018).

This change triggers changes in the areas of skills needed in the world of work. Predicting the skills needed will be very difficult because it depends on the field and sub-occupation that is the focus of the skill (Kwon, 2019). The 21st century has created a need for new types of skills that did not exist before, as well as eliminating skills that are no longer relevant (Oviawe et al., 2017).

Problem-solving, team working and communication are the skills most needed today in the workplace. Communication and collaboration are critical to 21st-century skills because so many of the jobs of the future will require them. The survey results concluded that problem-solving (50%), teamwork (35%), and communication (32%) are the top three skills needed by companies (An Economist Intelegnce Unit, 2015). The Partnership for 21st Century Skills (P21) explains that the core of the P21 framework is called 4C namely communication, collaboration, critical thinking and problem solving, and creativity and innovation (An Economist Intelegnce Unit, 2015).

Employability skills are skills, knowledge, and competencies that can improve the ability of workers to get or keep jobs (Brewer, 2013). Employability skills are a set of skills needed to enter the world of work, to survive and develop a career at work, or for career development at a new workplace.

Employability skills for the 21st century consist of five major skills, namely team player, self-motivation, verbal communication, problem-solving, and being proactive (McGunagle & Zizka, 2020). The skills needed in the industrial revolution 4.0 are self-management, communication, team-working, interpersonal, working under pressure imagination, critical thinking, willingness to learn, attention to detail planning, responsibility, insight, professionalism maturity, and emotional intelligence (Teng et al., 2019).

Vocational high schools (SMK) have the goal of producing graduates who are ready to work (Lawitta et al., 2017). The problem that occurs is the high rate of open unemployment (TPT) for SMK graduates. Based on data from the national central statistics agency (BPS), vocational graduates rank second in TPT after high school, namely 2,111,338 in August 2021 (Central Bureau of Statistics of the Republic of Indonesia, 2022). Central Bureau of Statistics East Java Indonesia data TPT for vocational graduates in East Java Province occupies the top position, namely 11.89% in 2020 (Central Bureau of Statistics of the Republic of Indonesia, 2020). Judging from the district, the highest TPT in East Java is in Sidoarjo Regency with 10.97%, then Surabaya City at 9.79%, and Gresik Regency at 9.61% (Central Bureau of Statistics of the Republic of Indonesia, 2020). These problems are exacerbated by the Covid-19 Pandemic which is a challenge for graduates (Kamaruddin et al., 2021).

An important aspect in producing graduates who can compete and succeed in jobs in the world of work later is by building work readiness for vocational students, by building work readiness for students it is hoped that it will reduce unemployment among vocational high school graduates (Maryanti et al., 2020).

Vocational High School graduates are declared to have high job readiness if they have mastered everything needed by the job requirements that must be possessed. Several things need to be prepared to have high work readiness, namely work skills (Zainuddin, M., & Rijal, 2022).

## Work Readiness

Readiness is the overall condition of a person that makes him ready to respond in a certain way to a situation. Adjustment to conditions at one time will affect the tendency to respond. So work readiness shows the condition of someone ready to do a job (Smith et al., 2014).

Readiness is a level or state that must be achieved in the process of individual development before it can perform properly at various levels of mental, physical, social, and emotional growth (Feriady, M., & Yanto, 2018). Job readiness is skills, knowledge, and attitudes that will enable new graduates to be able to contribute productively to achieve organizational goals in the place where the individual works (Makki et al., 2015).

Job readiness is defined as the extent to which graduates are deemed to have attitudes and attributes that make them ready to work or ready to succeed in the work environment (Caballero et al., 2011). Job readiness shows a person's ability to complete work by the provisions without experiencing difficulties and obstacles with maximum results and by the specified targets (D et al., 2014).

Work readiness is the ability that must be possessed by individuals to be able to work directly without requiring a time-consuming adjustment period in the framework of creating a product or adding value to a resource with maximum results by predetermined targets (Siddique et al., 2022).

Based on the description above, it can be concluded that work readiness is the condition of someone who can carry out a job with good results. Job readiness shows a mental attitude and skills that are ready to work.

Indicators of work readiness namely having responsibility, being able to adapt (flexibility), having skills, being able to communicate, having self-views, and paying attention to their health and safety (Brady, 2010),. Indicators of work readiness are personal resources, family support, industrial work experience, job expectations and information, learning environment, and career guidance (Suarta et al., 2021).

Job readiness is the extent to which graduates are considered to have the attitudes and attributes that make them ready to succeed in the work environment. There are four factors of work readiness, namely personal characteristics, organizational intelligence, work competence, and social intelligence (Caballero et al., 2011). Based on the description above, it can be concluded that indicators of job readiness include personal characteristics, organizational skills, work skills, and social skills.

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## **Communication Skills**

One of the top job skills students need to have is communication skills. Communication comes from the Latin word communis which means making equal. Communication is the delivery of messages that aim to create the same perception or meaning between the communicator and the communicant (Kurniadi, W., & Mahaputra, 2021).

Communication is a process in which a person or several people, groups, organizations, and communities create and use the information to connect with the environment and other people (Brent D. et al., 2013). Communication that runs effectively in the organization will make it easier for everyone to carry out the tasks for which they are responsible. Good communication within an organization can make it easier to achieve organizational goals (Mahbob et al., 2019).

Communication is a process of transferring information, ideas, and understanding from one person to another in the hope that the other person can interpret it according to the intended purpose (Velentzas & Broni, 2014). Communication is the process of conveying information from one party, whether an individual, group or organization as a sender to another party as a receiver to understand and open up opportunities to respond to the sender (Prabavathi & Nagasubramani, 2014). Communication is the process of transferring understanding in the form of ideas or information from one person to another (Savolainen, 2017).

Based on the description above, it can be concluded that communication skills are the ability to convey information, ideas, or material to others. Good communication skills can support the achievement of organizational goals.

There are five aspects of communication, namely: (1) representation, (2) listening, (3) reading, (4) discussion, and (5) writing (Baroody, 1993). Communication consists of oral and written communication (Prabavathi & Nagasubramani, 2014). The first scale of communication skills is writing ability, the second is speaking ability, the third is nonverbal communication ability and fourth is the listening ability (Richard, 2009).

One of the components of work readiness is communication, in a work situation a teacher is required to be able to communicate well during the teaching process in class, where teachers who can deliver material well can be understood by their students (Brady, 2010). The communication scale consists of openness, empathy, support, positive attitude, similarity, confidence, and closeness (Schiau, 2016).

There is a positive and significant influence between communication on employee performance (Hee, O. C. et al., 2019). The first element of communication skill is writing ability, the second is speaking ability, the third is nonverbal communication ability and the fourth is the listening ability (Richard, 2009).

Communication skills consist of oral communication (presentations, discussions), written communication (reporting, compiling materials), listening (verbal reception and understanding), visual communication (non-verbal, pictures, icons), interdisciplinary communication, and intercultural communication. The comparison of each communication skill is 10% writing, 15% reading, 30% talking, and 45% listening (Marc J. Riemer, 2007).

Based on the description above, it can be concluded that the indicators of communication skills are oral communication, written communication, listening skills, and visual communication.

Based on the description above, it is necessary to conduct research on the effect of communication skills and teamwork skills on the work readiness of vocational students in the field of building information design and modeling expertise (DPIB) in the city of Surabaya.

The purpose of this research is as follows. (1) To analyze the communication skills possessed by SMK students in the field of building engineering; (2) To analyze the effect of communication skills on work readiness of SMK students in the field of building engineering.

## Methodology

This research is a correlational study with an ex post facto research approach. The variables of this study are communication skills (X) as the independent variable, and job readiness (Y) as the dependent variable. Details of variables and indicators can be seen in Table.1.

No	Variables	Indicators
1	Communication Skills (X)	<ol> <li>Oral communication skills</li> <li>Written communication skills</li> <li>Listening skills</li> <li>Visual communication skills</li> </ol>
2	Work Readiness (Y)	<ol> <li>Personal characteristics</li> <li>Oganisational acumen</li> <li>Work competence</li> <li>Social intelligence</li> </ol>

Table 1	. Research	variables	and	indicators	
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The research location is in the city of Surabaya, Indonesia. The research subjects were class XII students of the State Vocational High School (SMKN) in the Field of Building Modeling and Information Design Expertise (DPIB). The Vocational Schools consist of SMKN 2 Surabaya, SMKN 3 Surabaya, and SMKN 7 Surabaya. The total population is 187 students. The sample size is calculated based on the solving formula so that a total sample of 128 students is obtained. Details of the total population can be seen in Table 2.

No	School	Number of students
1	SMKN 2 Surabaya	86
2	SMKN 3 Surabaya	67
3	SMKN 7 Surabaya	34
	Total	187

Table 2 Details of the total research population

The sample is part of the population that has the same characteristics. The sample size is searched using the Slovin formula, which is as follows.

$$n = \frac{N}{1 + Ne^2}$$
;.....(1)

Information:

N = Total Population

n = Number of Samples

e = Percent leeway for inaccuracies = 5%

$$n = \frac{187}{1 + 187 \times 0,0025} \\ = \frac{187}{1,4925} \\ = 128$$

Data collection using a questionnaire. The procedure of this research is through the preparation stage, the implementation stage, and the research data analysis stage. The Preparatory Stage consists of initial observations and preparation of research proposals and arranging research permits. The Implementation Phase consists of (1) Conducting a literature study on work readiness, communication skills, and teamwork skills. (2) Developing instruments on work readiness, communication skills, and teamwork skills. (3) Collect data on work readiness, communication skills, and teamwork skills. (4) Tabulating data on work readiness, communication skills. The Research Results Data Analysis Phase was carried out by conducting a path analysis between work readiness, communication skills, and teamwork skills.

#### **Result and Discussion**

### **Communication Skills**

Communication skills are the ability to convey information, ideas, or material to others. Good communication skills can support the achievement of organizational goals. The ability to communicate in this study was measured by four indicators, namely oral communication skills, written communication skills, listening skills, and visual communication skills. The results of respondents' answers to the variable ability to communicate can be seen in Figure 1.



Figure 1. Average Indicator Score on Communication Skills Variable

Based on Figure 1, the average score data for each indicator on the communication variable is obtained. The highest average score is in CS 7 and CS 8, namely writing skills with good and

correct grammar, and skills in using applications/programs used for writing. The lowest average score is on CS2 and CS 3, namely skills in speaking well in public, and skills in making interesting presentations. Comparison of the scores of each communication skill can be seen in Figure 2.



Figure 2. Comparison of the Average Scores of Communication Skills

Based on Figure 2 it is found that written communication gets the highest score. Communication skills that get the second highest score are listening skills and visual communication skills. The lowest score is on oral skills.

### **Work Readiness**

Work readiness is the condition of someone who has the readiness to carry out a job with good results. Job readiness shows a mental attitude and skills that are ready to work. Readiness for work in this study was measured by four indicators, namely personal characteristics, organizational acumen, work competence, and social intelligence. The results of respondents' answers to the variable job readiness can be seen in Figure 3.



Figure 3. Average Score of Indicators on Work Readiness Variable

Based on Figure 3, the average score data for each indicator on the work readiness variable is obtained. The highest average score is WR 11 and WR 13, namely being able to work responsibly, and being able to accept differences of opinion from colleagues. The lowest average scores are WR 1 and WR 2, namely being able to work under pressure, and being able to work with short time limits. Comparison of the scores of each component of work readiness can be seen in Figure 4.



Figure 4. Comparison of the average score of the work readiness component

Based on Figure 4, it is found that the ability to organize gets the highest score. Then those who get the second highest score are personal characteristics, after that social skills. The lowest score is on work skills.

### The influence of communication skills on the work readiness of vocational students

The results of data analysis showed that the influence of X on Y variables can be seen in Table 3 and the R square value in Table 4.

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
X -> Y	0.579	0.587	0.078	7.426	0.000

 Table 3. The value of direct influence between variables

Table 4.	R	Sq	uare
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	R Square	R Square Adjusted
Y	0.336	0.324

Based on Table 1, it is found that the ability to communicate (X) has a positive effect of 0.579 on work readiness (Y). P value of 0.000 < 0.05 means significant. So it can be concluded that there is a positive and significant influence of the ability to communicate on the work readiness of vocational students in the field of Building Information Modeling and Design (DPIB) expertise. The path coefficient image of communication skills on work readiness can be seen in Figure 5.



Figure 5. Path coefficient X to Y

Communication skills have a positive influence on the work readiness of vocational students. So, to increase the work readiness of vocational students, it is necessary to improve their communication skills.

Communication needs to get serious attention in job readiness in the present and the future. Communication that develops with information technology will be an important factor in work (Bowen & Pennaforte, 2017). Professional communication is a general skill needed by workers (Smith et al., 2014).

The communication skills of building engineering vocational school students with the highest scores are writing skills with good and correct grammar, and skills in using applications/programs used for writing, while the communication skills with the lowest scores are skills in speaking well in public, and skills make an interesting presentation. This shows that they have good skills in written communication, but are weak in oral communication. So that skills in communication, especially oral communication of SMK students in the field of building engineering need to be improved to be able to improve their work readiness.

## Conclusion

Based on the results and discussion above, it can be concluded as follows. (1) The students' communication skills from the highest to the lowest consist of written communication skills,

listening skills, visual communication skills, and oral communication skills; (2) Communication skills have a positive influence on the work readiness of vocational students. So, to increase the work readiness of vocational students, it is necessary to improve their communication skills.

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Contact email: wahyumulyono@unesa.ac.id