Evaluate the Vocational School Graduate's Work-readiness in Indonesia from the Perspectives of Soft skills, Roles of Teacher, and Roles of Employer

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Abstract

Over the past few decades, there has been a widening disparity in the abilities required for various skills, and employees are expected to possess the necessary requirements in this age of technology and industrial advancement. Education institutions around the globe face a formidable task in meeting this demand for skilled workers. Therefore, this research discusses the perspective of vocational education students on job readiness. A quantitative survey of nine soft skill indicators of vocational education students was conducted. Multiple linear regression analysis was conducted on an online survey of 530 students from 29 vocational schools across Indonesia. The data focuses on the soft skills currently attracting industry interest. Furthermore, soft skills are closely related to student work readiness, while vocational education learning only focuses on developing hard skills. Based on the needs of the industry, soft skills are progressively becoming essential qualifications. Therefore, vocational education needs to include soft skills in learning objectives, and the research reported five strong and three weak indicators. Soft skills can be increased through integrated and effective learning. This study's findings are that six indicators of soft skills have been developed enormously, and three other hands are weak. The presence of employers in the learning process is beneficial in developing soft skills for work readiness.

Keywords: work readiness, soft skill, employer, vocational education, Indonesia

1. Introduction

Since 2008, the ministry of education in Indonesia has changed the ratio of general education and vocational education from 70%:30% to 70%:30% (Kemendikbud, 2008). This change is planned to be achieved in 2025. This policy is based on the ministry of education's overall evaluation of the high dropout rate for high school students. From year to year, only 17-20% of high school graduates continue their studies, and the rest was drop out of school and search for work. High school graduate job seekers have low job readiness because their skills are not prepared (Priyono & Nankervis, 2019).

This ratio change is expected to shift the choice from general to vocational education. As a developing country, this policy is very productive. Not only reducing dropout rates but also increase workforce readiness in the long term (Finlay et al., 1999).

This policy also had a significant impact. New school units in the vocational field are overgrowing. The interest of the school community in the vocational area has increased sharply, and in 2021 vocational students will reach 49.1%. Because the school is new and with many limitations, the learning process only focuses on hard skills, while soft skills have yet to be developed (I M et al., 2018). As a result, employers are dissatisfied with vocational education graduates' low soft skills competency.

Based on data on the distribution of labor needs in Indonesia, the job market's needs are extensive and open, but on average, job seekers still need to pass the selection of soft skills (Rezqianita & Ardi, 2020). Graduates only prioritize the skills of producing goods or services and low soft skills competence (Andriani, 2021), for example, communication. Someone who does not have soft skills qualifications will lose the job competition (Collins, 2018).

This condition has resulted in high unemployment rates for vocational school graduates in Indonesia (Soelistiyono & Feijuan, 2022).

Based on the description above, it can be seen that the Indonesian government is very serious about organizing vocational education and overcoming the low quality and relevance of graduates. The government's seriousness is proven by the enactment of Presidential Instruction No. 9 of 2016 concerning the revitalization of vocational education (Sekretaris, 2016). This instruction was addressed to 9 ministries, three agencies, and 34 governors. So that they can intensely improve the quality of vocational school graduates, both hard and soft skills. This regulation obliges industry and related government agencies to allocate resources to strengthen a vocational school's quality. This policy was established based on the argument that human resource competencies are trained since they study at school and are supported by the government (Jackson & Collings, 2018).

Market demands and economic situations create uncertain opportunities for employment. The competency needs of the workforce are altered by industrial changes and technological advances (Kipper et al., 2021). Besides knowledge and academic credentials, new graduates should also possess competencies to increase career prospects (Donald et al., 2018; Succi & Canovi, 2020). Furthermore, competencies are divided into hard and soft skills, which are the requirement for a job. So, soft skills are an essential aspect of career success (Tripathy, 2020).

Vocational education aims to prepare students for work. This goal has not been achieved optimally due to the lack of absorption, failure to work in the required fields, and continuation with education (Jackson & Collings, 2018; Priyono & Nankervis, 2019; Soelistiyono & Feijuan, 2022). Getting good jobs after graduation depends on the right set of abilities (Suleman, 2018). The business industry has voiced concern that schools are failing to adequately prepare students for the labor market (Hurrell, 2016). To facilitate the rapid integration of recent graduates into the labor force, work readiness is tailored to the specific requirements of various industries. Job-seekers' inability to demonstrate relevant experience and knowledge is the primary cause of unemployment (Rahmat et al., 2016).

Changes in job demands make Industry choose employees with relevant personalities and work skills (Deming & Noray, 2018). Previous research has highlighted that graduates should be flexible and adapt to changes in the labor market (Jackson & Tomlinson, 2020; Lisá et al., 2019). There is a growing skills gap in the workforce, and educational institutions are hesitant to address the issue (McGunagle & Zizka, 2020). Vocational education teaches the knowledge, skills, and attitudes required for employment. In the job market, the caliber of graduates deficient in soft skills was also exposed (Hora et al., 2018; Succi & Canovi, 2020; Teng et al., 2019).

More advanced abilities are required for employment opportunities as the industry evolves and advances (Crayne, 2020). In recent decades, there has been an increased focus on prospects for employment, and the relevance of job skills has grown with the development of advanced industries and technologies. Furthermore, the ever-changing technology requires workers to learn new software and systems. People are willing to leave their established routines in search of job because of the increased competition in the labor market. Entrepreneurial competition in the industrial world requires innovation in marketing products (Lee et al., 2018). Interaction between workers, team-work, problem identification, problem-solving, and an attitude of learning become essential in dealing with changing new work patterns, surviving, and succeeding in the workplace. The success of an employee in a position is determined by the level of soft skills (Robles, 2012; Vogler et al., 2018).

Furthermore, soft skills are the ability to behave adaptively and constructively, enabling individuals to be professional and effective in facing life's challenges. Developing countries strive to improve and expand technical and professional education to cope with the demands of an ever-growing economy (Alam et al., 2020). Meanwhile, technological advances and uncertainty in the job market require graduates to acquire the required skills (Frank et al., 2019). This demand pays attention to developing soft skills during the academic period. The learning curriculum is structured for academic purposes, hence it is essential for development based on needs and demands. Education needs to adapt to changing needs related to the employability of graduates.

The focus of vocational education and training is on mastering complex skills. Studies in various countries show that employability has not met the expectations (Azmi et al., 2018; Eldeen et al., 2018; Lisá et al., 2019; Low et al., 2019). The weakness of Vocational High School graduates as new workers is primarily due to the soft skill aspect (Nuryanto & Eryandi, 2020). Many countries have failed to implement this education because their stakeholders do not understand the concept (Suharno et al., 2020). Soft skills have a positive impact on helping students be more confident in choosing a career (Mahmud et al., 2019). Soft skills are needed to get a job and success in carrying out work (Reis & Bernath, 2017). Lack of soft skill competencies affects worker character, safety, productivity, engagement, and decision-making (Dean, 2017). A person can be said to be ready to work if he has the qualifications needed for a job.

Soft skills are personal traits such as self-awareness, the ability to work with others, leadership skills, communication skills, and cultural sensitivity (Reis & Bernath, 2017). A person can be said to be ready to work if he has the hard and soft skills required for a job. Soft skills are not related to innate intellectual abilities but represent a large part of the non-specific and non-academic traits that make up valuable skills (Welch et al., 2017). In Indonesia, soft skills are developed through character education and achieved through extracurricular learning (Hadam et al., 2017).

Characteristics of soft skills include creativity, self-control, self-concept, and resilience affect students' career readiness (Lau et al., 2019; Yu & Kelly, 2019). Soft skills are closely related to personal character, including personal skills, behavior, and interpersonal skills (Herbert et al., 2020). The soft skills qualifications that graduates must possess for this decade are digital, critical thinking, global, interpersonal, and communication skills (Tymon et al., 2010).

Soft skills activities include discipline and self-control in completing assignments (Haenggli & Hirschi, 2020; Lau et al., 2019; Šverko & Babarović, 2019; Yu & Kelly, 2019; Zhou et al., 2016), self-confident (Guan et al., 2013; Mahmud et al., 2019; Šverko & Babarović, 2019), critical thinking, problem-solving, and creativity (Chan et al., 2015; Sojow et al., 2018; Šverko & Babarović, 2019). Soft skills cover many aspects of work, namely communication, teamwork, public speaking, problem-solving, conflict management, lifelong learning, creativity, and professionalism (Debnath et al., 2012).

Based on the description above, a synthesis can be made that vocational education in Indonesia is experiencing rapid growth. However, soft skills competencies still need to be developed in the intracurricular structure. Previous research has identified many soft skills indicators for job readiness. This study identified soft skills competencies developed in schools to determine graduate work readiness. To limit the scope of the research, we use several indicators often complained about by entrepreneurs, namely character, information gathering, creative, problem-solving, self-confidence, critical thinking, communication, and public speaking.

2. Method

The literature review shows a gap between the need and demand for the skills of Vocational High School graduates. Schools tend to develop hard skills, unlike industry which prefers to improve soft skills. This research is designed to find soft skills factors in the job readiness of Vocational High School graduates and proposes a learning design that stimulates mastery using a quantitative method in the form of a survey. Many researchers have reviewed soft skills. In this research, it processed the soft skill indicators from Debnath et al. (2012) and soft skills needed by the industry (Di Gregorio et al., 2019; Hanim Md Pazil & Che Razak, 2019; Robles, 2012) as a reference. Meanwhile, nine indicators of soft skills in creativity, information gathering, public speaking, problem-solving, self-confidence, character, critical thinking, communication, and cooperation were obtained. These indicators were developed into a statement questionnaire using 5 Likert scales (Table 1).

Table 1 is a list of questionnaire statements. Based on the soft skills concept, we reduced it to a number of questions. The statements are structured so vocational students in Indonesia can easily understand them. For this purpose, each statement has been validated by a Linguist. In this paper, we explain the reasons for compiling statements for character indicators. Indirectly each statement leads to a particular character that is more specific. To gain a global conception, character indicators are only generally stated, namely good character. Meanwhile, we consider specific characters such as perseverance, self-responsibility, and social responsibility to be included in good character.

Initially, each indicator contains at least three statements, and after being tested for validity, it is determined, as shown in Table 1. Each statement is measured using a Lickert scale with score intervals of 1 to 5. In summary, it can be explained that if respondents answer statements with the maximum score, they are declared to have excellent soft skills. And this is what was tested in this research.

After testing the validity of the expert judgment and statistical product-moment correlation tests, the questionnaire was distributed online to SMK students in Indonesia. The questionnaire was created in the online survey filling application so that participants could fill out the survey with only one link. After completion, the data will be automatically recorded online. We distribute online survey links through teachers and directly to students. The Indonesian vocational teacher association assisted researchers in distributing the survey to regions in Indonesia. Participation in this research is not tied to specific competencies. Vocational school students are the only requirement to participate in the survey.

Sampling was conducted using a random sampling technique because every student has the same potential. We took the distribution of participating schools from three zones in Indonesia, namely the western zone (for example, SMK

N 2 Muara Enim), the middle zone (for example, SMK N 1 Mondokan), and the eastern zone (for example, SMK Muhammadiyah Aimas, Sorong district). This regional sampling was carried out for an even distribution of sample coverage representing all regions of Indonesia.

Indicator	Statement
Character	I will learn and try again after failing
	I always come on time and do not play truant
	I throw trash in its place
Information gathering	I prefer to read books
	I like to ask questions in various ways
Creative	I like to imagine
	Something new is exciting to me
	I will learn and try again when mistakes are experienced
Problem-solving	I have several solutions to solve problems in my work.
	In Every decision, I consider the risks that will occur
Self-confident	I don't like to compare myself to other people
	After graduating, I believe I can work well in the company
	I believe in every job I do
Critical thinking	I connect experience and knowledge to solving problems
	I find out that the material is not clear
	I gather suggestions from some friends and look for the best solution when I
	stumble on a problem
Communication	I can say what I think
	I pay attention to the situation/atmosphere when talking to other people
	I like to talk to my friends when there is a problem
Cooperation	Success in group assignments is the result of members helping each other
	Criticism and suggestions in groups are needed to achieve goals
Public speaking	I speak fluently while advancing in front of the class
	I can convey information to many people
Working readiness	After graduating from school, I am ready to work
	I have sufficient competence to work in the industrial world
	I prefer to work than continue my education
	I will work according to the field or outside the field after graduating from
	Vocational High School
	I am confident in my work ability

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Data processing used quantitative descriptive analysis to determine the condition of students' soft skills and multiple linear regression analysis to determine the relationship between soft skills indicators and student work readiness. Multiple linear regression is used to determine the effect of two or more independent variables on one dependent with the assumption of a straight-line relationship. The classical assumptions of normality, linearity, heteroscedasticity, and multicollinearity tests were also used with the SPSS 26 program. The conclusion of multiple linear regression using the formula:

$Y = a + b_1 x_1 + b_2 x_2 + b_3 x_3 + b_4 x_4 + b_4 x_$	$b_5 x_5 + b_6 x_6 + b_7 x_7 + b_8 x_8 + b_9 x_9$	(1)
Y = Student work readiness	x_4 = solution to the problem	
a = constant	$x_5 = $ Self-confident	
$b_1 - b_9 =$ independent variable regression coefficient n	x_6 = Critical thinking	
$x_1 = character$	$x_7 = $ communication	
x_2 = Information gathering	$x_8 = \text{Cooperation}$	
$x_3 = Creative$	x_9 = public speaking	

Learning designs that stimulate mastery of soft skills were prepared, and the design included soft skills in every learning activity. The role is designed to bring entrepreneurs into the classroom at certain times.

3. Results

Soft skill deficiencies are cited as a problem by both industry and universities (Hurrell, 2016). There are different perceptions regarding needs, and vocational education emphasizes mastering hard skills. Concerning the need for the 21st century, industry demand more soft skills, while emphasizing emphasizes professionalism, adaptability, creativity, customer orientation, and teamwork (Succi & Canovi, 2020). The most sought-after skills are teamwork, problem-solving, communication, computer, thinking and leadership, analytical/conceptual, management, creativity, and organizational and interpersonal (Sarfraz et al., 2018). In addition, the soft skills of teamwork, flexibility, and interpersonal of fresh graduates are needed to invest and grow the company (Di Gregorio et al., 2019).

Vocational education students were recorded to determine their soft skills and work readiness juxtaposed with the needs of entrepreneurs. Data collection obtained 530 respondents from Vocational High School students in Indonesia. The data comprised 364 males and 166 females at 68.7% and 31.1%, with a class division of 50%, 40%, and 10% for grades 12, 11, and 10. The division of class levels is carried out to see the overall condition of the soft skills of students of all levels. The descriptive statistical analysis results can be seen in Table 3, and the average value of each indicator shows a medium-high level. Based on the average score of indicators, the order of skills from the highest is cooperation, character, creativity, self-confidence, problem-solving, critical thinking, communication, information gathering, and public speaking. Respondent demographics are shown in Table 2.

Description		East zone	Central Zone	West Zone	Sum
Number of res	pondents	118	257	155	530
Number of sch	nools	5	19	5	29
Number of cla	sses				
	Grade I	1	4	1	6
	Grade II	4	11	4	19
	Grade III	5	13	7	25
Gender					
	Female	31	93	42	166
	Male	87	164	113	364

Table 2. Demographic Data of Respondents

Everyone has soft skills because they are innate and personal (Tang, 2019). The bottom three ranks of information gathering, communication, and public speaking are essential skills that have not been optimally developed. The world of education should consider this category of soft skills for graduates to meet the demands and enter the job market.

A regression analysis was performed to ensure that soft skills affect job readiness of students. Before performing multiple linear regression analysis, the classical assumption test was carried out with the results in Table 4, and the data were normally distributed with an exact value of 0.058. Furthermore, the linearity and heteroscedasticity tests also showed good conditions, and all p-values were more than 0.05. In the multicollinearity test, the data is considered good with a VIF less than 10 or a tolerance value greater than 0.05. The classical assumption test concludes that the data is good and can be continued in the multiple linear regression test.

Table 2.	Descriptive	Statistical	Analysis
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Indicator	Highest	lowest	Mean	Mean Percentage	SD
Character(x_1)	15	4	13.49	89.9%	1.880
Information gathering (x_2)	10	2	7.36	73.6%	1.716
$Creative(x_3)$	15	4	12.92	86.1%	2.058
The solution to problem (x_4)	10	2	8.42	84.2%	1.519
Self-confident(x_5)	15	3	12.71	84.7%	2.373
Critical thinking (x_6)	15	3	12.49	83.2%	2.309
Communication(x_7)	15	4	11.61	77.4%	2.365
Cooperation (x_8)	10	2	9.15	91.5%	1.433
public speaking (x_9)	10	2	7.02	70.2%	1.896
Working readiness (Y)	25	10	20.78	83.1%	3.482

	Normality	Lincority F(n)	Multicollinearity		Heteroscedasticity
	Exact Sig.	Linearity $\Gamma(p)$	Tolerance	VIF	(p)
Character(x_1)		1.534 (0.133)	0.446	2.244	0.882
Information gathering (x_2)		1.804 (0.084)	0.571	1.751	0.289
$Creative(x_3)$		1.604 (0.111)	0.501	1.996	0.862
The solution to the problem (x_4)		0.782 (0.584)	0.353	2.833	0.860
Self-confident (x_5)	0.058	0.943 (0.498)	0.442	2.260	0.106
Critical thinking (x_6)		1.688 (0.073)	0.321	3.113	0.460
Communication (x_7)		1.6 (0.103)	0.470	2.125	0.648
Cooperation (x_8)		1.489 (0.168)	0.568	1.762	0.279
public speaking (x_9)		1.829 (0.080)	0.543	1.841	0.443

Table 3. Classic Assumption Test

The results of multiple linear regression analysis are presented in Table 5. The indicators can explain work readiness of students in this research of 55% seen from the R squared value. The F test value has a probability of 0.000, smaller than 0.05, and it can be concluded that all indicators affect students' work readiness. From the results, soft skill indicators are the main supporting components of job readiness. To reduce the unemployment rate, mature students are expected to be prepared for work. The high level of competition and changing industrial needs make them have good work readiness to be absorbed in the industry. This readiness can be conducted by integrating soft skill indicators into learning. More support from the government, schools, and industry is needed for this success.

Table 4. Multiple Linear Regression Test Results

	R (R Square)	F (p)	В	t (p)
(Constant)			5.45	6.565 (0.000)
Character(x_1)			-0.001	-0.010 (0.992)
Information gathering (x_2)			-0.143	-1.805 (0.072)
Creative(x_3)		70.496 (0.000)	0.058	0.829 (0.407)
Solution to problem (x_4)	0.741 (0.550)		0.510	4.495 (0.000)
Self-confident (x_5)	0.741 (0.550)		0.645	9.939 (0.000)
Critical thinking (x_6)			0.069	0.886 (0.376)
Communication(x_7)			0.105	1.662 (0.097)
Cooperation (x_8)			-0.072	-0.759 (0.448)
public speaking (x_9)			0.245	3.339 (0.001)

The t-statistical test was performed to determine the individual significance of the probability values of the nine indicators. Therefore, there are three significant indicators with a value of α =5%, namely problem solving, self-confidence, and public speaking. There are two significant indicators at α =10%, namely creativity, and communication. These five indicators correspond to the soft skills required by entrepreneurs. A person's success in economic and social life does not depend on academic achievement and IQ, while personality has an important role (Heckman & Kautz, 2012).

Multiple linear regression results equation:

$$Y = a + b_1 x_1 + b_2 x_2 + b_3 x_3 + b_4 x_4 + b_5 x_5 + b_6 x_6 + b_7 x_7 + b_8 x_8 + b_9 x_9$$
(2)

$$Y = 5.450 - 0.001x_1 - 0.143x_2 + 0.058x_3 + 0.51x_4 + 0.645x_5 + 0.069x_6 + 0.105x_7 - 0.072x_8 + 0.245x_9$$
(3)

From the results, work readiness of students is influenced by character, information gathering, creativity, problem-solving, self-confidence, critical thinking, communication, cooperation, and public speaking. The mathematical equation can be seen in Figure 1, and soft skills can improve job readiness. Students should be able to acquire and develop soft skills during the education period. Furthermore, educators and industry should also support graduates to acquire appropriate and adequate job readiness skills. Based on Figure 1, this research can emphasize that the school has succeeded in developing six kinds of soft skills indicators while the other three have not. This finding implies that schools must make more serious efforts to develop all soft skill indicators. These findings can increase employers' confidence in getting workers from Indonesia despite shortages. Schools and employers are encouraged to be involved in jointly developing soft skills competencies through the learning process at school.



Figure 1. Analysis Result

The formation of soft skills has a relatively long time. Teachers have difficulty integrating soft skills into teaching materials and evaluation tools. Integrated learning emphasizes the mastery of soft skills, which is integrated with the mastery of complex skills. Conceptually, soft skills learning is carried out in the planning, implementation, and assessment stages. The integration is achieved through formal and informal learning activities in schools. Several approaches can be taken in learning soft skills by using behavioral, constructivist, cognitive, and humanism learning.

The learning strategy is problem-solving, and integrated soft skills are developed through tasks carried out in groups or independently. Furthermore, the designed modules, extracurricular activities, work experience, and career guidance are expected to strengthen students' soft skills. The evaluation stage is essential for developing soft skills and learning success. Soft skills can be measured using non-test measuring tools, including observation sheets, perception studies, and peer-to-peer assessments.

Students' awareness can assist in developing soft skills. For this reason, it is necessary to involve the industrial world in improving soft skills. Industry and school collaboration is the primary basis for improving these skills and reducing the competency gap. In addition, the industry should have a role in the learning process. Most schools have industry-related programs on industrial work practices. This kind of collaboration has several obstacles, namely differences in school curricula and the need for practice sites, inappropriate selection, and unmonitored learning processes. Therefore, a more intense collaboration model is needed.

4. Discussion

This research discusses the importance of soft skills on work readiness of students. Industry demand skills are now changing, and soft skills are preferred. This is important because schools are places to prepare workers according to demands. On the other hand, industry should also be evident in determining skill needs and assisting schools. Cooperation between industry and schools is needed to overcome the gap in work skills and encourage the economy (Succi & Canovi, 2020).

To improve the understanding of graduates' needs, industry does not convey the importance of soft skills development to academia (Hanim Md Pazil & Che Razak, 2019). They should play an active role in developing the soft skills to build stronger partnerships and ensure their readiness to work. Teaching and assessing soft skills is difficult to learn in the classroom. Soft skills are not learned in the vocational environment because they are difficult to measure. Standard achievement tests do not capture many of the skills necessary in life.

Psychological traits are measured by task performance (Devedzic et al., 2018). Some traits are incentives and joint performance in completing tasks (Heckman & Kautz, 2012). These results indicate that five soft skill factors significantly support students' work readiness. The five factors are problem-solving, confidence, public speaking, creativity, and communication.

There is the possibility of difficulties arising in every circumstance (Carnevale & Smith, 2018), and the workplace may present challenges even after employment (Furlan et al., 2019), and problem-solving skills are essential (Cummins et al., 2019; Nygren et al., 2019). Problem-solving skills affect students' job readiness and should be built during education (Ritter et al., 2018).

The indicator of confidence partially affects work readiness. Self-confidence can suppress negative thoughts and encourage them to act more optimally (Möbius et al., 2022). People with self-confidence can live their daily lives

better (Pettersson, 2018). In work readiness, confidence is needed in the interview process for work (Petruzziello et al., 2022). Trust can be formed through good experience, interaction, and environmental socialization (Kipkosgei et al., 2020). The support of others is also needed to increase one's self-confidence (Garaika et al., 2019). In the educational environment, these skills should be a concern (Haro-Soler & Kiraly, 2019). A complex educational environment is expected to increase the confidence skills of graduates before entering the world of work.

Public speaking has become a required skill in this decade (Berry & Routon, 2020), and the ability to convey ideas to others accurately and concisely is a priority (Coffelt et al., 2019). In education, it is used for presentations in class (Simonds & Hooker, 2018) and various events. Work and business are used to show the results of ideas (Baccarani & Bonfanti, 2015) in the era of technological advances (McNatt, 2019). Public speaking skills can help one become a better student and worker (Wrahatnolo & Munoto, 2018). This is consistent with the results that the ability to speak in public affects students' work readiness. Education should equip students with the ability to speak in public to increase the spirit of working graduates (Ivanova et al., 2020; Jean-Pierre et al., 2021).

The modern world is characterized by innovation, where companies compete with each other to bring innovative solutions to existing problems (Torfing, 2019). This rapid progress requires creative problem-solving, identifying new problems, and creating solutions (Sima et al., 2020). Work readiness is influenced by creativity, and this supports the ability to connect and find new solutions to problems (Glåveanu, 2018).

Humans constantly engage in communication as a sort of activity, and various forms and methods are used to convey information. The results of the t-test communication are factors that affect the work readiness of students, and many jobs require cooperative interaction of the employees (Bakker & Demerouti, 2018). Communication is the primary factor of interpersonal understanding (Sun et al., 2018). In the interview process, graduates should convey information to increase chances of getting the job, and this poses a challenge regarding communication skills.

Soft skills were developed long before formal education through social interactions and habits (Ahmed et al., 2015). The nature of education is crucial for guiding the development of abilities not expressly outlined in the curriculum (Black & Wiliam, 2018). Students are invited to participate in structured learning activities for skills development (Sprott, 2019). Therefore, teacher professionalism in building students should be considered (Hora et al., 2018; Ping et al., 2018). The development of reflection and self-evaluation, synthesis, and analysis of knowledge can effectively improve the soft skills of graduates.

Personality can be improved in adolescence with training and life experiences. A strategic step to developing graduates is increasing awareness of soft skills (Succi & Canovi, 2020). Furthermore, the initial investment required to build soft skills is self-awareness, acceptance of flaws, and the will to change. Personal traits can be changed and developed by training with self-awareness (Demetriou et al., 2020), and these changes require long-term practice. Soft skills training can be conducted outside the academic scope by consciously socializing with friends, colleagues, and community members (Schulz, 2008).

With the development of industry and the economy, competition in finding jobs is increasing (Sima et al., 2020). Rising levels of difficulty in the marketplace could increase proficiency standards. Graduates face a challenging job market because most employers would only consider the most qualified people (Suleman, 2018) with better soft skills (Majid et al., 2012; Sarfraz et al., 2018; Tsirkas et al., 2020). Developing yourself following the demands needed by employers is one of the essential points to being able to compete in the job market. Students and educators must begin to pay attention to this need. Schools are critical to equipping students with the skills needed for future jobs. The approach that is considered suitable is in the form of incorporating soft skills training into hard skills learning or perhaps by adding soft skills subjects to the curriculum.

Integrated learning strategies translate the curriculum into activities and point to patterns that can develop the personality of students (Birney & McNamara, 2019; Paolini, 2015). Work-integrated learning (WIL) combines academic activities with practical applications in the workplace. This design assists students in skills development, facilitates access to information, and provides effective feedback from the industry (Jackson, 2015).

School and industry collaborative learning models can be industrial classes and factory teaching. This model improves soft skills because the industry is directly involved in learning. Meanwhile, an industrial class is held in collaboration between schools and industry. Teaching Factory (TEFA) is a learning process of expertise through the production of services with procedures and work standards. Meanwhile, schools and industries complement each other in conducting the learning process. In the two learning models, the role of industry includes knowledge of technology updates, quality assurance, complementary facilities and infrastructure, and the synchronization of competencies.

The industry serves as a role model for schools regarding technology and expertise. Therefore, direct industrial involvement in the learning process will be beneficial in overcoming competency gaps and increasing awareness of the skills. Furthermore, it is beneficial for teachers to understand the aspects to be addressed and strengthened. Students can also be stimulated to prepare for the world of work. Direct industrial involvement will strengthen the link and match between schools and industry.

5. Conclusion

A school is a place to develop complex and soft skills. However, the needs of industry lately are more directed at soft skills. The world of education needs to pay attention to the demands given by industry, increasing the chances of graduates getting jobs. This research presents the perspective of students on job readiness with their soft skills. Therefore, school should take quick action to address the difficulties and demands of the workplace. A fundamental priority should be the balanced development of complex and soft skills. Support from industry is needed for schools, and the collaboration answers the job gaps that often occur. This study found that vocational students in Indonesia have six indicators of work readiness, and three others are lacking. The implication is that employers do not have to worry about recruiting workers from Indonesia because they have good job readiness. The investigation results also note that further research is needed on whether soft skills are effectively achieved through intracurricular learning and the mechanism.

References

- Ahmed, F., Capretz, L. F., Bouktif, S., & Campbell, P. (2015). Soft skills and software development: A reflection from the software industry. *ArXiv Preprint ArXiv:1507.06873*.
- Alam, G. M., Forhad, A. R., & Ismail, I. A. (2020). Can education as an 'International Commodity' be the backbone or cane of a nation in the era of fourth industrial revolution? - A Comparative study. *Technological Forecasting* and Social Change, 159, 120184. https://doi.org/10.1016/j.techfore.2020.120184
- Andriani, D. (2021). A critical review of the labor competitiveness as human capital in Indonesia. International Journal of Research in Business and Social Science (2147-4478), 10(5), 52-65. https://doi.org/10.20525/ijrbs.v10i5.1303
- Azmi, A. N., Kamin, Y., Noordin, M. K., & Ahmad, A. N. (2018). Towards industrial revolution 4.0: Employers' expectations on fresh engineering graduates. *International Journal of Engineering and Technology(UAE)*, 7(4), 267-272. https://doi.org/10.14419/ijet.v7i4.28.22593
- Baccarani, C., & Bonfanti, A. (2015). Effective public speaking: a conceptual framework in the corporate-communication field. *Corporate Communications: An International Journal*, 20(3), 375-390. https://doi.org/10.1108/CCIJ-04-2014-0025
- Bakker, A. B., & Demerouti, E. (2018). Multiple Levels in Job Demands-Resources Theory: Implications for Employee Well-being and Performance. *Handbook of Well-Being*, 2018, 1-13.
- Berry, R., & Routon, W. (2020). Soft skill change perceptions of accounting majors: Current practitioner views versus their own reality. *Journal of Accounting Education*, 53, 100691. https://doi.org/10.1016/j.jaccedu.2020.100691
- Birney, L., & McNamara, D. (2019). The Curriculum and Community Enterprise for Restoration Science S.T.E.M. + C Professional Learning Model: Expansion and Enhancement. *Journal of Curriculum and Teaching*, 8(3), 122. https://doi.org/10.5430/jct.v8n3p122
- Black, P., & Wiliam, D. (2018). Classroom assessment and pedagogy. *Assessment in Education: Principles, Policy & Practice*, 25(6), 551-575. https://doi.org/10.1080/0969594X.2018.1441807
- Carnevale, A. P., & Smith, N. (2018). Balancing work and learning: Implications for low-income students.
- Chan, K. Y., Uy, M. A., Ho, M. ho R., Sam, Y. L., Chernyshenko, O. S., & Yu, K. Y. T. (2015). Comparing two career adaptability measures for career construction theory: Relations with boundaryless mindset and protean career attitudes. *Journal of Vocational Behavior*, 87, 22-31. https://doi.org/10.1016/j.jvb.2014.11.006
- Coffelt, T. A., Grauman, D., & Smith, F. L. M. (2019). Employers' Perspectives on Workplace Communication Skills: The Meaning of Communication Skills. *Business and Professional Communication Quarterly*, 82(4), 418-439. https://doi.org/10.1177/2329490619851119

- Collins, J. (2018). Recruitment, Evaluation, and Selection. *HR Management in the Forensic Science Laboratory*, 203-226. https://doi.org/10.1016/b978-0-12-801237-6.00012-9
- Crayne, M. P. (2020). The traumatic impact of job loss and job search in the aftermath of COVID-19. *Psychological Trauma: Theory, Research, Practice, and Policy, 12*(S1), S180-S182. https://doi.org/10.1037/tra0000852
- Cummins, P. A., Yamashita, T., Millar, R. J., & Sahoo, S. (2019). Problem-Solving Skills of the U.S. Workforce and Preparedness for Job Automation. *Adult Learning*, *30*(3), 111-120. https://doi.org/10.1177/1045159518818407
- Dean, S. (2017). Soft Skills Needed for the 21st-Century Workforce. *International Journal of Applied Management* and Technology, 18(1), 5.
- Debnath, M., Pandey, M., Chaplot, N., Gottimukkula, M. R., Tiwari, P. K., & Gupta, S. N. (2012). Role of soft skills in engineering education: Students' perceptions and feedback. In *Enhancing Learning and Teaching Through Student Feedback in Engineering*. Woodhead Publishing Limited. https://doi.org/10.1016/B978-1-84334-645-6.50004-5
- Demetriou, A., Kazi, S., Makris, N., & Spanoudis, G. (2020). Cognitive ability, cognitive self-awareness, and school performance: From childhood to adolescence. *Intelligence*, 79, 101432. https://doi.org/10.1016/j.intell.2020.101432
- Deming, D., & Noray, K. (2018). STEM Careers and the Changing Skill Requirements of Work. NBER Working Paper No. 25065. https://doi.org/10.3386/w25065
- Devedzic, V., Tomic, B., Jovanovic, J., Kelly, M., Milikic, N., Dimitrijevic, S., Djuric, D., & Sevarac, Z. (2018). Metrics for Students' Soft Skills. *Applied Measurement in Education*, 31(4), 283-296. https://doi.org/10.1080/08957347.2018.1495212
- Di Gregorio, A., Maggioni, I., Mauri, C., & Mazzucchelli, A. (2019). Employability skills for future marketing professionals. *European Management Journal*, *37*(3), 251-258. https://doi.org/10.1016/j.emj.2019.03.004
- Donald, W. E., Ashleigh, M. J., & Baruch, Y. (2018). Students' perceptions of education and employability. Career Development International, 23(5), 513-540. https://doi.org/10.1108/CDI-09-2017-0171
- Eldeen, A. I. G., Abumalloh, R. A., George, R. P., & Aldossary, D. A. (2018). Evaluation of graduate students employability from employer perspective: Review of the literature. *International Journal of Engineering & Technology*, 7(2.29), 961-966.
- Finlay, I., Niven, S., & Young, S. (1999). Changing Vocational Education and Training: An International Comparative Perspective. Routledge. https://doi.org/10.4324/9780203980477
- Frank, M. R., Autor, D., Bessen, J. E., Brynjolfsson, E., Cebrian, M., Deming, D. J., Feldman, M., Groh, M., Lobo, J., Moro, E., Wang, D., Youn, H., & Rahwan, I. (2019). Toward understanding the impact of artificial intelligence on labor. *Proceedings of the National Academy of Sciences*, 116(14), 6531-6539. https://doi.org/10.1073/pnas.1900949116
- Furlan, A., Galeazzo, A., & Paggiaro, A. (2019). Organizational and Perceived Learning in the Workplace: A Multilevel Perspective on Employees' Problem Solving. Organization Science, 30(2), 280-297. https://doi.org/10.1287/orsc.2018.1274
- Garaika, G., Margahana, H. M., & Negara, S. T. (2019). Self efficacy, self personality and self confidence on entrepreneurial intention: study on young enterprises. *Journal of Entrepreneurship Education*, 22(1), 1-12.
- Glăveanu, V. P. (2018). Educating which creativity? *Thinking Skills and Creativity*, 27, 25-32. https://doi.org/10.1016/j.tsc.2017.11.006
- Guan, Y., Deng, H., Sun, J., Wang, Y., Cai, Z., Ye, L., Fu, R., Wang, Y., Zhang, S., & Li, Y. (2013). Career adaptability, job search self-efficacy and outcomes: A three-wave investigation among Chinese university graduates. *Journal of Vocational Behavior*, 83(3), 561-570. https://doi.org/10.1016/j.jvb.2013.09.003
- Hadam, S., Rahayu, N., & Ariyadi, A. N. (2017). Strategi Implementasi Revitalisasi SMK. 73-85. Retrieved from http://eksis.ditpsmk.net/uploads/book/file/72CC91A0-BE32-4828-842F-73FF6CA5C8E6/10_langkah_revitalisa si_SMK.pdf
- Haenggli, M., & Hirschi, A. (2020). Career adaptability and career success in the context of a broader career resources framework. *Journal of Vocational Behavior*, 119(March 2019), 103414. https://doi.org/10.1016/j.jvb.2020.103414

- Hanim Md Pazil, A., & Che Razak, R. (2019). Perspectives of Asian Employers on Graduates' Soft Skills: A Systematic Review. Universal Journal of Educational Research, 7(11), 2397-2405. https://doi.org/10.13189/ujer.2019.071117
- Haro-Soler, M. del M., & Kiraly, D. (2019). Exploring self-efficacy beliefs in symbiotic collaboration with students: an action research project. *The Interpreter and Translator Trainer*, *13*(3), 255-270. https://doi.org/10.1080/1750399X.2019.1656405
- Heckman, J. J., & Kautz, T. (2012). Hard evidence on soft skills. Labour Economics, 19(4), 451-464. https://doi.org/10.1016/j.labeco.2012.05.014
- Herbert, I. P., Rothwell, A. T., Glover, J. L., & Lambert, S. A. (2020). Graduate employability, employment prospects and work-readiness in the changing field of professional work. *International Journal of Management Education*, 18(2), 100378. https://doi.org/10.1016/j.ijme.2020.100378
- Hora, M. T., Benbow, R. J., & Smolarek, B. B. (2018). Re-thinking Soft Skills and Student Employability: A New Paradigm for Undergraduate Education. *Change: The Magazine of Higher Learning*, 50(6), 30-37. https://doi.org/10.1080/00091383.2018.1540819
- Hurrell, S. A. (2016). Rethinking the soft skills deficit blame game: Employers, skills withdrawal and the reporting of soft skills gaps. *Human Relations*, 69(3), 605-628. https://doi.org/10.1177/0018726715591636
- Suarta, I. M., Suwintana, I. K., Fajar Pranadi Sudana, I G. P., & Dessy Hariyanti, N. K. (2018). Employability Skills for Entry Level Workers: A Content Analysis of Job Advertisements in Indonesia. *Journal of Technical Education and Training*, 10(2), 49-61. https://doi.org/10.30880/jtet.2018.10.02.005
- Ivanova, T., Gubanova, N., Shakirova, I., & Masitoh, F. (2020). Educational technology as one of the terms for enhancing public speaking skills. *Universidad y Sociedad*, *12*(2), 154-159.
- Jackson, D. (2015). Employability skill development in work-integrated learning: Barriers and best practice. *Studies in Higher Education*, 40(2), 350-367. https://doi.org/10.1080/03075079.2013.842221
- Jackson, D., & Collings, D. (2018). The influence of Work-Integrated Learning and paid work during studies on graduate employment and underemployment. *Higher Education*, 76(3), 403-425. https://doi.org/10.1007/s10734-017-0216-z
- Jackson, D., & Tomlinson, M. (2020). Investigating the relationship between career planning, proactivity and employability perceptions among higher education students in uncertain labour market conditions. *Higher Education*, 80(3), 435-455. https://doi.org/10.1007/s10734-019-00490-5
- Jean-Pierre, J., Hassan, S., & Sturge, A. (2021). Enhancing the Learning and Teaching of Public Speaking Skills. *College Teaching*, 1-8. https://doi.org/10.1080/87567555.2021.2011705
- Kemendikbud. (2008). Perencanaan Strategis Pendidikan Kejuruan di Indonesia.
- Kipkosgei, F., Kang, S.-W., & Choi, S. B. (2020). A Team-Level Study of the Relationship between Knowledge Sharing and Trust in Kenya: Moderating Role of Collaborative Technology. Sustainability, 12(4), 1615. https://doi.org/10.3390/su12041615
- Kipper, L. M., Iepsen, S., Dal Forno, A. J., Frozza, R., Furstenau, L., Agnes, J., & Cossul, D. (2021). Scientific mapping to identify competencies required by industry 4.0. *Technology in Society*, 64, 101454. https://doi.org/10.1016/j.techsoc.2020.101454
- Lau, P. L., Anctil, T., Ee, G. T., Jaafar, J. L. S., & Kin, T. G. (2019). Self-Concept, Attitudes Toward Career Counseling, and Work Readiness of Malaysian Vocational Students. *Career Development Quarterly*, 68(1), 18-31. https://doi.org/10.1002/cdq.12210
- Lee, M., Yun, J., Pyka, A., Won, D., Kodama, F., Schiuma, G., Park, H., Jeon, J., Park, K., Jung, K., Yan, M.-R., Lee, S., & Zhao, X. (2018). How to Respond to the Fourth Industrial Revolution, or the Second Information Technology Revolution? Dynamic New Combinations between Technology, Market, and Society through Open Innovation. *Journal of Open Innovation: Technology, Market, and Complexity*, 4(3), 21. https://doi.org/10.3390/joitmc4030021
- Lisá, E., Hennelová, K., & Newman, D. (2019). Comparison between employers' and students' expectations in respect of employability skills of university graduates. *International Journal of Work-Integrated Learning*, 20(1), 71-82.

- Low, S. P., Gao, S., & Ng, E. W. L. (2019). Future-ready project and facility management graduates in Singapore for industry 4.0: Transforming mindsets and competencies. *Engineering, Construction and Architectural Management.*
- Mahmud, M. I., Noah, S. M., Ahmad, J., Jaafar, W. M. W., Amat, S., & Bakar, A. Y. A. (2019). Initial development and validation of the career readiness cognitive information processing module among university students. *International Journal of Innovation, Creativity and Change*, 7(6), 360-374.
- Majid, S., Liming, Z., Tong, S., & Raihana, S. (2012). Importance of Soft Skills for Education and Career Success. International Journal for Cross-Disciplinary Subjects in Education (IJCDSE), 2(2), 1036-1042.
- McGunagle, D., & Zizka, L. (2020). Employability skills for 21st-century STEM students: the employers' perspective. *Higher Education, Skills and Work-Based Learning, 10*(3), 591-606. https://doi.org/10.1108/HESWBL-10-2019-0148
- McNatt, D. B. (2019). Enhancing public speaking confidence, skills, and performance: An experiment of service-learning. *The International Journal of Management Education*, 17(2), 276-285. https://doi.org/10.1016/j.ijme.2019.04.002
- Möbius, M. M., Niederle, M., Niehaus, P., & Rosenblat, T. S. (2022). Managing Self-Confidence: Theory and Experimental Evidence. *Management Science*, 68(11), 7793-8514. https://doi.org/10.1287/mnsc.2021.4294
- Nuryanto, A., & Eryandi, K. Y. (2020). The 21st Century Ideal Skills for Vocational High Schools. Proceedings of the International Conference on Educational Research and Innovation (ICERI 2019), 401(Iceri 2019), 142-147. https://doi.org/10.2991/assehr.k.200204.026
- Nygren, H., Nissinen, K., Hämäläinen, R., & Wever, B. (2019). Lifelong learning: Formal, non-formal and informal learning in the context of the use of problem-solving skills in technology-rich environments. *British Journal of Educational Technology*, 50(4), 1759-1770. https://doi.org/10.1111/bjet.12807
- Paolini, A. C. (2015). School Counselors: Key Stakeholders Helping Underserved Students to be Career Ready. Journal of Curriculum and Teaching, 4(1). https://doi.org/10.5430/jct.v4n1p133
- Petruzziello, G., Chiesa, R., Guglielmi, D., van der Heijden, B. I. J. M., de Jong, J. P., & Mariani, M. G. (2022). The development and validation of a multi-dimensional Job Interview Self-efficacy scale. *Personality and Individual Differences*, 184, 111221. https://doi.org/10.1016/j.paid.2021.111221
- Pettersson, C. (2018). Psychological well-being, improved self-confidence, and social capacity: bibliotherapy from a user perspective. *Journal of Poetry Therapy*, 31(2), 124-134. https://doi.org/10.1080/08893675.2018.1448955
- Ping, C., Schellings, G., & Beijaard, D. (2018). Teacher educators' professional learning: A literature review. *Teaching and Teacher Education*, 75, 93-104.
- Priyono, S., & Nankervis, A. (2019). Graduate Work-Readiness Challenges in Indonesia—Findings from a Multiple Stakeholder Study (pp. 107-123). https://doi.org/10.1007/978-981-13-0974-8_7
- Rahmat, N., Ayub, A. R., & Buntat, Y. (2016). Employability skills constructs as job performance predictors for Malaysian polytechnic graduates: A qualitative study. *Malaysian Journal of Society and Space 12*, 12(3), 154-167.
- Reis, C., & Bernath, T. (2017). Core Competencies in Humanitarian Action. In *Becoming an International Humanitarian Aid Worker* (pp. 45-52). Elsevier. https://doi.org/10.1016/B978-0-12-804314-1.00004-X
- Rezqianita, B. L., & Ardi, R. (2020). Drivers and Barriers of Industry 4.0 Adoption in Indonesian Manufacturing Industry. Proceedings of the 3rd Asia Pacific Conference on Research in Industrial and Systems Engineering 2020, 123-128. https://doi.org/10.1145/3400934.3400958
- Ritter, B. A., Small, E. E., Mortimer, J. W., & Doll, J. L. (2018). Designing Management Curriculum for Workplace Readiness: Developing Students' Soft Skills. *Journal of Management Education*, 42(1), 80-103. https://doi.org/10.1177/1052562917703679
- Robles, M. M. (2012). Executive Perceptions of the Top 10 Soft Skills Needed in Today's Workplace. Business Communication Quarterly, 75(4), 453-465. https://doi.org/10.1177/1080569912460400
- Sarfraz, I., Rajendran, D., Hewege, C., & Mohan, D. (2018). An exploration of global employability skills: a systematic research review. *International Journal of Work Organisation and Emotion*, 9(1), 63. https://doi.org/10.1504/IJWOE.2018.091339

Schulz, B. (2008). The importance of soft skills: Education beyond academic knowledge.

- Sekretaris kabinet. (2016). Instruksi Presiden tentang revitalisasi SMK.
- Sima, V., Gheorghe, I. G., Subić, J., & Nancu, D. (2020). Influences of the Industry 4.0 Revolution on the Human Capital Development and Consumer Behavior: A Systematic Review. Sustainability, 12(10), 4035. https://doi.org/10.3390/su12104035
- Simonds, C. J., & Hooker, J. F. (2018). Creating a culture of accommodation in the public-speaking course. *Communication Education*, 67(3), 393-399. https://doi.org/10.1080/03634523.2018.1465190
- Soelistiyono, A., & Feijuan, C. (2022). A Literature Review of Labor Absorption Level of Vocational High School Graduate In Indonesia. Proceedings of the International Joint Conference on Arts and Humanities 2021. Atlantis Press. https://doi.org/10.2991/assehr.k.211223.155
- Sojow, L., Wajong, A., & Sangi, N. (2018). Vocational Students' Motivation for Professional Skills. IOP Conference Series: Materials Science and Engineering, 306(1). https://doi.org/10.1088/1757-899X/306/1/012072
- Sprott, R. A. (2019). Factors that foster and deter advanced teachers' professional development. *Teaching and Teacher Education*, 77, 321-331. https://doi.org/10.1016/j.tate.2018.11.001
- Succi, C., & Canovi, M. (2020). Soft skills to enhance graduate employability: comparing students and employers' perceptions. *Studies in Higher Education*, 45(9), 1834-1847. https://doi.org/10.1080/03075079.2019.1585420
- Suharno, Pambudi, N. A., & Harjanto, B. (2020). Vocational education in Indonesia: History, development, opportunities, and challenges. *Children and Youth Services Review*, 115(May), 105092. https://doi.org/10.1016/j.childyouth.2020.105092
- Suleman, F. (2018). The employability skills of higher education graduates: insights into conceptual frameworks and methodological options. *Higher Education*, 76(2), 263-278. https://doi.org/10.1007/s10734-017-0207-0
- Sun, H., Liu, J., & Chen, H. (2018). Communication in Human Resource Management. Human Resources Management and Services (TRANSFERRED), 1(1), 1-5.
- Šverko, I., & Babarović, T. (2019). Applying career construction model of adaptation to career transition in adolescence: A two-study paper. *Journal of Vocational Behavior*, 111, 59-73. https://doi.org/10.1016/j.jvb.2018.10.011
- Tang, K. N. (2019). Beyond Employability: Embedding Soft Skills in Higher Education. Turkish Online Journal of Educational Technology - TOJET, 18(2), 1-9.
- Teng, W., Ma, C., Pahlevansharif, S., & Turner, J. J. (2019). Graduate readiness for the employment market of the 4th industrial revolution. *Education* + *Training*, *61*(5), 590-604. https://doi.org/10.1108/ET-07-2018-0154
- Torfing, J. (2019). Collaborative innovation in the public sector: the argument. *Public Management Review*, 21(1), 1-11. https://doi.org/10.1080/14719037.2018.1430248
- Tripathy, M. (2020). Relevance Of Soft Skills In Career Success. MIER Journal of Educational Studies, 10(1).
- Tsirkas, K., Chytiri, A.-P., & Bouranta, N. (2020). The gap in soft skills perceptions: a dyadic analysis. *Education* + *Training*, *62*(4), 357-377. https://doi.org/10.1108/ET-03-2019-0060
- Tymon, W. G., Stumpf, S. A., & Doh, J. P. (2010). Exploring talent management in India: The neglected role of intrinsic rewards. *Journal of World Business*, 45(2), 109-121. https://doi.org/10.1016/j.jwb.2009.09.016
- Vogler, J. S., Thompson, P., Davis, D. W., Mayfield, B. E., Finley, P. M., & Yasseri, D. (2018). The hard work of soft skills: augmenting the project-based learning experience with interdisciplinary teamwork. *Instructional Science*, 46(3), 457-488. https://doi.org/10.1007/s11251-017-9438-9
- Welch, M. J., Abulhab, A., & Bowles Therriault, S. (2017). College and Career Readiness in Boston: Understanding and Tracking Competencies and Indicators. April. www.air.org
- Wrahatnolo, T., & Munoto. (2018). 21 st centuries skill implication on educational system. IOP Conference Series: Materials Science and Engineering, 296, 012036. https://doi.org/10.1088/1757-899X/296/1/012036
- Yu, B., & Kelly, S. (2019). The non-cognitive returns to vocational school tracking: South Korean evidence. International Journal of Educational Research, 98(July), 379-394. https://doi.org/10.1016/j.ijer.2019.09.008
- Zhou, W., Guan, Y., Xin, L., Mak, M. C. K., & Deng, Y. (2016). Career success criteria and locus of control as indicators of adaptive readiness in the career adaptation model. *Journal of Vocational Behavior*, 94, 124-130.

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