



# Exploration of Domains and Elements of Integrated Training Competency Model through Work-Based Learning (WBL)

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**Abstract:** The exploration in this study is referred to the Integrated Training Competency Model through Work-Based Learning (WBL). This exploratory study utilized structured interview instruments that have been developed by the researcher. This research involved 7 respondents consisting of 4 automotive practitioners and 3 academicians in the automotive field to explore and determine domains and elements. The findings of the study show the percentage of agreement among the 7 experts. Domains and elements of Integrated Training Competence (ITC) through Work-Based Learning (WBL) were investigated in this study. It is found that there are three (3) main domains for the model namely: (1) Management / manager performance; (2) Cultural and (3) WBL learning quality. Meanwhile, for the quality of learning outcomes, there are four (4) main domains namely: (1) Mastery of Speed; (2) Student's Professional Attitude; (3) Mental Readiness for Work, and (4) Freedom Independence. These findings used single round semi structured interview based on the Fuzzy Delphi Method (FDM) technical approach. The results of this exploration will be used to develop an Integrated Training Competency model through Work-Based Learning (WBL).

**Keywords:** Integrated Training Competency Model, Work-Based Learning (WBL), Automotive practitioners, Fuzzy Delphi Method (FDM)

## 1. Introduction

The Vocational High School (VHS) aims to prepare responsible and competent secondary level workers in certain fields (Indonesian government, 2003). This requirement is in line with the ASEAN Economic Community (AEC), which has been in force since 31 December 2015 and is a new challenge for Indonesian education, especially vocational schools to be a labour market provider. The AEC requires labour skills at all areas that have the characteristics of the early stages of MEA implementation are: free flow of goods, free flow of services, free flow of investment, free flow of capital, skilled labour flow, priority integration sectors, food agriculture and forestry. Indonesian training conditions Indonesia is still dominated by primary education graduates up to 60% of the current working population. Vocational High School graduates contributed 8.603% to high school graduates of 15.25% in August (Directorate of Vocational Education, 2015).

The existence of VHS in providing skilled middle-class workers still needs to be improved. Low levels of education and efficiency contribute to low job productivity and will eventually create new unemployment. According to the Central Bureau of Statistics 2016, the number of unemployed in Indonesia in February 2016 was 7.0 million people. Looking into the citizen's level of education, the Open Unemployment Rate (OUR) VHS has the highest position at 9.84 percent, followed by OUR Diploma I / II / III at 7.22 percent. For the lowest OUR in primary schools, it dropped 3.44 percent. This is because graduates with primary education tend to accept any job, while those with higher education tend to receive

suitable employment. Empirical facts show that the objectives of the implementation of vocational education are not achieved (Mundi, 2018). BPS (or Badan Pusat Statistik, the Central Bureau of Statistics), is a non-departmental government institute of Indonesia that is responsible for conducting statistical surveys. Its main customer is the government, but statistical data is also available to the public. Annual surveys include national and provincial socio-economics, manufacturing establishments, population and the labour force (Neliti, 2020). Open unemployment rate (OUR) is measured as a percentage of unemployed/job seekers to the total workforce.  $OUR = (\text{Job Seekers} / \text{Labor Force}) \times 100\%$ . The benefits of this open unemployment indicator are as a government reference for creating new jobs, showing the success rate of employment programs from year to year, and as an indicator of poverty rates and material for evaluating the success of economic development (Fatkhul, 2013).

According to the report, graduates from automotive engineering, mechanical engineering, computer and informatics engineering, administration, and finance contributed the most to the unemployment rate in 2018. The main contributors to unemployment are the majority from automotive engineering (356,081 graduates), almost double the number of unemployed graduates from the finance and administrative field (Arie Wibowo Khurniawan, Gustriza Erda, 2019). The details are shown in Table 1.

**Table 1 - Largest unemployed VHS major in 2018**

No	Education field	Frequency
1	Automotive engineering	356 081
2	Mechanical engineering	252 212
3	Computer and informatics engineering	228 554
4	Administration	180 904
5	Finance	152 113

Previous research suggest a gap in the efficiency of VHS graduates with the demands of the World of Business and Industry (Wibowo Nugroho, 2015), as well as a gap between vocational graduates and the needs of enterprises or industries (Kompas, 2016). Callan, 2003 and Clarke (2007) indicate that there is a difference in goals between the world of education and the industrial world because the school world wants graduates who have high scores in a fast time, while the industrial world wants graduates with technical competence and good attitudes (Callan, 2003)(Clarke, 2007). One of the technology learning policies and vocational programs voiced by the government with the link and match policy does not solve the problem at the lower level. The term link and match in vocational education, especially in Vocational High Schools (VHS), is considered inappropriate, so this term is replaced with "we serve the real world", meaning that what is produced by educational institutions can be conveyed to the world of work, and vice versa (Martawijaya, 2011).

Vocational High School is a secondary school that deepens talent and expertise in certain fields. This is in line with the content of Law of National Education System No. 20 on 2003 article 3 on the objectives of national education and the explanation of article 15 which states that vocational education is secondary education that prepares students especially to work in certain fields (Indonesian government, 2003). Vocational schools need to provide vocational training programs that are appropriate and focused on specific fields and prepare students to enter specific occupations such as technology and industry, business and management, and tourism. Judging from the regional distribution, the highest number of vocational secondary education units in West Java with 2,554 vocational schools and in East Java with 1,827 vocational schools. Overall, the number of vocational schools in Java reached 7,348 or 57.36% of the total vocational schools in Indonesia followed by Sumatra (26.04%), Sulawesi (9.62%), Kalimantan (6.47%), Bali and Nusa Tenggara (6.18%), and Maluku and Papua (3.53%) (Hamid, 2016).

The quality of human resources can be improved both through improving the quality of education and by improving formal training. This is because VHS has different characteristics from general education, both in terms of educational criteria, teaching materials and graduates (Ngadi, 2014). VHS is a type of secondary education that specifically prepares graduates to become experts, skilled and ready to enter the community in line with the field of interest studies (Widodo G, 2016). Therefore, there is great hope that all vocational graduates can be placed in the job market (Wicaksonoputro & Indrayanti, 2017).

The quality of Vocational High School (VHS) depends on three main factors, including: (1) instrumental input consisting of students, teachers, and educational infrastructure; (2) educational process which is the interaction between three instrumental inputs to produce output (graduates); (3) educational output as a result of the process, where the quality is not only determined by the educational process but also strongly influenced by the dynamics of community demands. The limitation of vocational education (Gasskov, 2000): (1) vocational education and training institutions have limited resources, especially funding, thus limiting the participation from industry. (2) the industry is dissatisfied with the quality of vocational public training and must take responsibility in providing direct technical support (direct provision of course); (3) increase technical competition in the labour market to expand/expand sector qualifications and fund sector qualifications; (4) the government and trade unions recognize the role of employees in vocational training through the guidance of various scenarios and incentive schemes such as collecting employee contracts, paying training costs, training taxes and others (Gasskov, 2000).

This research is in line with the study from Samad, Wan Ahmad, Sern, Awang, and Ismail (2017) using the Delphi technique to explore the domain and indicators found that only twelve domains (1) Governance; (2) The framework of qualifications; (3) Standard of competence; (4) Supplier of skill standards; (5) Delivery; (6); (7) industrial relations; (8) The experience of industrial work; (9) The twinning program; (10) Community service program; (11) The curriculum-based industrial visits; and (12) Educational entrepreneurship to produce of skilled workers with high incomes and the desires to become a develop nation by 2020 (Samad, Noorazman Abd; Wan Ahmad, Wan Mohd Rashid; Sern, Lai Cee; Harun, Hairuddin; Awang, Halizah; Ismail, 2017). Also, the 21st-century learning framework, according to (BSNP: 2010) in Etistika Yuni Wijaya; Dwi Agus Sudjimat; Amat Nyoto research are as follows: (a) Critical-Thinking and Problem-Solving Skills, able to think critically, laterally, and systemically, especially in the context of problem-solving; (b) Ability to communicate and collaborate (Communication and Collaboration Skills), able to communicate and collaborate effectively with various parties; (c) Ability to create and renew (Creativity and Innovation Skills), able to develop their creativity to produce various innovative breakthroughs; (d) Information and Communication Technology Literacy, able to utilize information and communication technology to improve performance and daily activities; (e) Contextual Learning Skills, able to undergo contextual independent learning activities as part of personal development, and (f) Information and media literacy skills, able to understand and use various communication media to convey various ideas (Wijaya, Sudjimat, & Nyoto, 2016).

From the description above, the research aims (1) To explore the domains and elements required in the Integrated Training Competency model through the Work-Based Learning (WBL) approach, (2) Determine the domains and elements of the Integrated Training Competency model through the Work-Based Learning approach (WBL).

## 2. Methodology

This study uses the Fuzzy Delphi Method (FDM) to explore the domains and elements of the Integrated Training Competency Model through Work-Based Learning. The Delphi Fuzzy Method (FDM) was developed to solve the problem of the traditional Delphi method (Mohamad et al., 2021; Ishikawa et al., 1993). This method is based on group thinking of qualified experts to ensure the validity of the information collected.

The first stage of data collection involved semi-structured interviews with 3 (three) Work-Based Learning experts from educational institutions (VHS). The interview protocol was prepared in advance. Identifying themes that emerged from the interviewees was used to develop a Consensus Survey of domains and elements of the Integrated Training Competency Model through Work-Based Learning. The second stage is to get an agreement based on the theme given by the experts. The details of the expert participants as given in Table 2.

**Table 2 - Expert selection and criteria**

No	Area of expertise	Age (years old)	Experience (years)	Department/industry
Expert 1 (R1)	Engine	32	11	Honda Graha Sidoarjo Ltd.
Expert 2 (R2)	Electrical	51	30	United Motor Centre Ltd. (Suzuki)
Expert 3 (R3)	Chasis and Power Train	37	15	Astra international Ltd. (Toyota)
Expert 4 (R4)	Engine	51	25	Sun Motor Ltd. (Mitsubishi)
Expert 5 (R5)	Automotive teacher	51	20	SMK Negeri 3 Buduran Sidoarjo (State VHS)
Expert 6 (R6)	Principal of VHS	56	27	SMK Darma Siswa 1 Sidoarjo (Private VHS)
Expert 7 (R7)	Automotive teacher and Chairperson of the Special Work Exchange VHS in Surabaya	54	22	SMK Negeri 3 Surabaya (State VHS)

A 5-point Likert scale, from strongly disagree to strongly agree, was used for the consensus survey. The experts were asked to indicate the extent of their agreement with the statements given. It will build on emerging themes that the experts picked up from the interviews conducted in the previous phase. For this purpose, seven experts in automotive engineering, namely four experts from the automotive industry and three experts in education, responded to a consensus survey on exploring Domains and elements of the Integrated Training Competency Model through Work-Based Learning.

Domains and management/manager elements were adapted and developed from the Samsul Hadi Certified Research instrument (School Model for Building Primary Performance, Postgraduate UNY, 2008) used to measure the performance of primary school principals (which was later adapted for student respondents) with 3 (three) indicators: (1) leadership,

(2) management, (3) personality. Each of them is outlined by several elements that are adapted to the tasks of the management/manager performance of industrial practice (Samsul, 2008).

The process of FDM is illustrated as follows; Step 1, experts are invited to determine the importance of the evaluation criteria and the ratings of alternatives with respect to various criteria using linguistic variables. Step 2, The linguistic variables were converted into triangular fuzzy numbers as suggested. Step 3, using the vertex method was used to compute the distance between the average and distance between two fuzzy numbers (Chen, 2000). Step 4, then, determine the consensus that achieved in this study (Cheng & Lin, 2002). Step 5, aggregating the fuzzy evaluations and Step 6, the fuzzy evaluation and the ranking order of alternative options can be determined according to the values. In this study, 4 domains and 35 elements were found, as follows: (1) there are 15 indicators of management performance; (2) student organizational culture have 12 indicators; (3) the quality of WBL learning has 4 indicators; and (4) the quality of WBL learning outcomes there are 4 indicators.

### 3. Research Finding

#### 3.1 Research Question 1: Explore the Domains and Elements Required in the Integrated Training Competency Model through the Work-Based Learning (WBL) Approach

##### 3.1.1 Domain and Elements Management/ Manager Performance, Culture, and Quality of WBL Learning

The Exploration of the domains and elements required in the Integrated Training Competency model through the Work-Based Learning (WBL) approach, namely, (1) Performance Management/Manager, each is describing 3 main domains and related elements; (2) Culture is divided into two domains, namely School Culture and Corporate Culture; (3) Quality of WBL Learning, consisting of 4 essential associated domains and elements, is shown in Table 3 below.

**Table 3 - Domain and elements management /manager performance**

Exploration of the domains and elements of	Domain	Elements
Management /Manager Performance	Leadership	- Decision maker
		- Openness/Democratic
		- Relationship patterns between superiors and subordinates
		- Development of a learning community
	Management	- Organize
		- Manpower organize
		- Facilities organize
		- Finical organize
	Personality	- Discipline
		- Work Ethic
		- Teamwork
		- Imitative
- Responsibility		
Cultural	School Culture	- Honesty
		- Motivation performance
		- Collaborative leadership
		- Collaborative within instructor
		- Professional Development
		- Colleague Support
Cultural	Corporate Culture	- Similarity of Purpose
		- Learning Partnership
		- There is intensive communication among members of the organization

		<ul style="list-style-type: none"> <li>- Respect for expertise</li> <li>- Delegation of authority enabling them to take action in a timely manner</li> <li>- Experienced management involvement and knowledge required in operational activities</li> <li>- Passionate about work and can be trusted to be given freedom of action</li> <li>- Organizational conditioning to be innovative and flexible in facing the challenges of change</li> </ul>
Quality of WBL Learning	Quality Instructor/Teacher	<ul style="list-style-type: none"> <li>- Formal diploma/degree</li> <li>- Mastery of teaching materials</li> <li>- Consistency in the delivery of teaching materials</li> <li>- Effective use of face-to-face time</li> <li>- interesting way of teaching</li> <li>- Clarity / strategy of how to teach</li> <li>- Suitability of learning aids</li> <li>- Teacher interaction with student</li> <li>- Teacher responses to student questions / opinions</li> <li>- Giving examples to clarify the presentation of the material</li> <li>- Feedback on assignments that have been done by the instructor / teacher</li> <li>- The suitability of the assignment given by the teacher with the teaching material</li> <li>- Appropriateness (suitability) of the teacher's assessment</li> <li>- Teacher performance during teaching and learning activities as a whole</li> </ul>
	Quality of curriculum equipment	<ul style="list-style-type: none"> <li>- Availability / clarity of subject structure</li> <li>- Availability / clarity of course syllabus tools</li> <li>- Availability / clarity of learning plan tools</li> </ul>
	Quality of learning resource facilities	<ul style="list-style-type: none"> <li>- Availability / clarity of learning resources: books, textbooks, internet, other sources</li> <li>- Availability of learning infrastructure: room, furniture, air conditioning, laboratory, Workshop, audio / visual.</li> <li>- Availability of theoretical learning tools: training books, job sheets, manuals, repair manuals</li> <li>- Availability of practical learning facilities: training objects, measuring tools, service tools</li> </ul>
	Quality Students	<ul style="list-style-type: none"> <li>- The seriousness / seriousness of participating in the Teaching and learning activities</li> <li>- Readiness to receive material</li> <li>- Intensity of communication with the teacher</li> <li>- Responses to assignments given by the teacher</li> <li>- The quality of the results of the teacher's assignment.</li> <li>- Overall student performance</li> </ul>

### 3.1.2 Component of Quality of Learning Outcomes

The exploration of the domains and elements needed in the Integrated Training Competency model through the Work-Based Learning (WBL) approach continues for the Quality of Learning Outcomes component, namely: (1) Domain and Speed Mastery elements consist of 5 (five) essential elements, namely Technical Knowledge, Coordination of Work, Problem Solving, Communication and Services, and Accountability; (2) Domains and elements of Student Professional Attitude have identified 4 (four) elements: Care for quality, Work fast, accurate and efficient, Respecting the time, and Maintain reputation; and (3) Domains and elements of mental readiness for work in terms of Critical and creative attitude, Logical judgment and objective attitude, Adult/independent attitudes and controlled emotions, Willingness to work and Disciplined Attitudes; (4) Domains and elements of freedom/independence are derived from 3 (three) main domains: Freedom in choosing a career, Self-stability in choosing a career, and Responsibility for the career that will be chosen.

The exploration of the domains and elements needed in the Integrated Education and Training Competency model through the Work-Based Learning (WBL) approach continues for the Quality of Learning Outcomes, shown in Table 4 below.

**Table 4 - The exploration of the domains and elements needed in the Integrated Education and Training Competency model through the Work-Based Learning (WBL) approach continues for the Quality of Learning Outcomes**

Exploration of the domains and elements of	Domain	Element
Quality of Learning Outcomes	1 Mastery of speed	<ul style="list-style-type: none"> <li>- Technical knowledge</li> <li>- Coordination of work</li> <li>- Problem solving</li> <li>- Communication and services</li> <li>- Accountability</li> </ul>
	2 Student's Professional Attitude	<ul style="list-style-type: none"> <li>- Care for quality</li> <li>- Work fast, accurate and efficient</li> <li>- Appreciate your time</li> <li>- Maintain reputation</li> </ul>
	3 Freedom/independence	<ul style="list-style-type: none"> <li>- <i>Freedom in choosing a career</i></li> <li>- Choosing a career for one's own abilities</li> <li>- Choosing a career does not depend on other people</li> <li>- <i>Self-stability in choosing a career</i></li> <li>- Believe in your own abilities</li> <li>- Feel happy in pursuing his career field</li> <li>- Optimistic about the career he has chosen</li> <li>- <i>Responsibility for the career that will be chosen</i></li> <li>- Try hard in your current career field</li> <li>- Diligent in pursuing career and vocational fields</li> <li>- Be aware of the goals and ideals of the vocational career field</li> <li>- Be motivated by the career field you are working on</li> </ul>

### 3.2 Research Question 2: Determine the domain and elements of the Integrated Training Competency model through the Work-Based Learning (WBL) approach

To answer the second research question, determining the domain and elements of the Integrated Training Competency model through the Work-Based Learning (WBL) approach, expert's consensus was tabulated into table. Each of the elements according to the domains were rated by the experts. Based on the Fuzzy Delphi Method (FDM), the expert's consensus must be higher than 70% to be accepted.

#### 3.2.1 Domain and Elements Management/ Manager Performance

Table 5 explains the 7 experts' consensus on the elements for each domain. All elements are achieved the acceptance level with more than 70%.

**Table 5 - Domain and elements management/manager performance**

No	Domain	Elements	R1	R2	R3	R4	R5	R6	R7	%
1	Leadership	- Decision maker	✓		✓	✓	✓	✓	✓	85.7
		- Openness/Democratic	✓	✓	✓	✓	✓	✓	✓	100
		- Relationship patterns between superiors and subordinates	✓	✓	✓	✓	✓	✓	✓	100
		- Development of a learning community		✓	✓	✓	✓	✓	✓	85.7
2	Management	- Organize	✓	✓	✓	✓	✓	✓	✓	100
		- Manpower organize	✓	✓	✓	✓		✓	✓	85.7
		- Facilities organize	✓	✓	✓		✓	✓	✓	85.7
		- Finical organize	✓	✓	✓	✓	✓	✓	✓	100
		- Disciplined	✓	✓	✓	✓	✓	✓	✓	100
		- Work Ethic	✓	✓	✓	✓	✓	✓	✓	100
3	Personality	- Teamwork	✓	✓	✓	✓	✓	✓	✓	100
		- Imitative	✓		✓	✓	✓	✓	✓	85.7
		- Responsibility	✓	✓	✓	✓	✓	✓	✓	100
		- Honesty	✓	✓	✓	✓	✓	✓	✓	100
		- Motivation performance	✓	✓	✓	✓	✓	✓	100	

### 3.2.2 Domain and Elements of Cultural

According to Table 6, experts were requested to rate their consensus on the elements for the domain Cultural. The majority of the elements were accepted with more than 70% baseline.

**Table 6 - Domain dan elements of cultural**

No	Domain	Element	R1	R2	R3	R4	R5	R6	R7	%
1	School Culture	- Collaborative leadership	✓	✓	✓	✓	✓	✓	✓	100
		- Collaborative within instructor	✓	✓	✓	✓	✓	✓	✓	100
		- Professional Development	✓	✓	✓		✓	✓	✓	85.7
		- Colleague Support	✓		✓	✓	✓	✓	✓	85.7
		- Similarity of Purpose	✓	✓	✓	✓	✓	✓	✓	100
		- Learning Partnership	✓	✓	✓	✓	✓		✓	85.7
2	Corporate Culture	- There is intensive communication among members of the organization	✓	✓	✓	✓	✓	✓	✓	100
		- Respect for expertise	✓	✓		✓	✓	✓	✓	85.7
		- delegation of authority enabling them to take action in a timely manner	✓	✓	✓	✓	✓	✓	✓	100
		- Experienced management involvement and knowledge required in operational activities	✓	✓	✓	✓	✓	✓	✓	100
		- Passionate about work and can be trusted to be given freedom of action	✓	✓	✓	✓	✓	✓	✓	100

Table 6 -Continue

No	Domain	Element	R1	R2	R3	R4	R5	R6	R7	%
2	Corporate Culture	Organizational conditioning to be innovative and flexible in facing the challenges of change	✓	✓	✓	✓	✓	✓	✓	100

### 3.2.3 Domain and Elements Quality of WBL Learning

In terms of Quality of WBL Learning, four (4) domains have been rated by the experts and majority are agreed with the elements proposed. Based on Table 7, the acceptance level for all items are more than 70%.

**Table 7 - Domain and Elements quality of WBL Learning**

No	Domain	Element	R1	R2	R3	R4	R5	R6	R7	%
1	Quality Instructor/Teacher	- Formal diploma/degree	✓	✓	✓	✓	✓		✓	85.7
		- Mastery of teaching materials	✓	✓	✓	✓	✓	✓	✓	100
		- Consistency in the delivery of teaching materials	✓	✓	✓	✓	✓	✓	✓	100
		- Effective use of face-to-face time	✓	✓	✓	✓		✓	✓	85.7
		- Interesting way of teaching	✓	✓		✓	✓	✓	✓	85.7
		- Clarity / strategy of how to teach	✓	✓	✓	✓	✓	✓	✓	100
		- Suitability of learning aids	✓	✓	✓	✓	✓	✓	✓	100
		- Teacher interaction with student	✓	✓	✓	✓	✓	✓	✓	100
		- Teacher responses to student questions / opinions	✓	✓	✓	✓	✓	✓	✓	100
		- Giving examples to clarify the presentation of the material	✓	✓	✓	✓	✓	✓	✓	100
		- Feedback on assignments that have been done by the instructor / teacher		✓	✓	✓	✓	✓	✓	85.7
		- The suitability of the assignment given by the teacher with the teaching material	✓	✓	✓	✓	✓	✓	✓	100
		- Appropriateness (suitability) of the teacher's assessment.	✓	✓	✓	✓	✓	✓	✓	100
- Teacher performance during teaching and learning activities as a whole	✓	✓	✓		✓	✓	✓	85.7		
2	Quality of curriculum equipment	- Availability / clarity of subject structure	✓	✓	✓	✓	✓	✓	✓	100
		- Availability / clarity of course syllabus tools	✓	✓	✓	✓	✓	✓	✓	100
		- Availability / clarity of learning plan tools	✓	✓	✓	✓	✓	✓	✓	100
3	Quality of learning resource facilities	- Availability / clarity of learning resources: books, textbooks, internet, other sources	✓	✓	✓	✓	✓	✓	✓	100

**Table 7 – Continue**



No	Domain	Element	R1	R2	R3	R4	R5	R6	R7	%
		Availability of learning infrastructure: room, furniture, air conditioning, laboratory, Workshop / shop, audio / visual.	✓	✓	✓	✓	✓	✓	✓	100
		- Availability of learning infrastructure: room, furniture, air conditioning, laboratory, Workshop / shop, audio / visual.	✓	✓	✓	✓	✓	✓	✓	100
		- Availability of theoretical learning tools: training books, job sheets, manuals, repair manuals	✓	✓	✓		✓	✓	✓	85.7
		- Availability of practical learning facilities: training objects, measuring tools, service tools	✓	✓	✓	✓	✓	✓	✓	100
		- The seriousness / seriousness of participating in the teaching and learning	✓	✓	✓	✓	✓	✓	✓	100
		- Readiness to receive material	✓	✓	✓	✓	✓	✓	✓	100
4	Quality Students	- Intensity of communication with the teacher	✓	✓	✓	✓	✓	✓		85.7
		- Responses to assignments given by the teacher	✓	✓	✓	✓	✓	✓	✓	100
		- The quality of the results of the teacher's assignment.	✓	✓	✓	✓	✓	✓	✓	100
		- Overall student performance	✓	✓	✓	✓	✓		✓	85.7

### 3.2.4 Domain and Elements of the Component for Quality of Learning Outcomes

In the following section, the Quality of Learning Outcomes components will be focused on 4 (four) main Domains: (1) Mastery of Speed, (2) Professional attitude of students, (3) Mental readiness for work, and (4) Domain of freedom/independence. All items have reached a minimum acceptance percentage of more than 70%, as shown in table 8.

**Table 8 - Expert consensus based on 4 (four) main domains for quality of learning outcomes**

No	The element of mastery of speed	R1	R2	R3	R4	R5	R6	R7	%
1	Technical knowledge	✓	✓	✓	✓	✓	✓	✓	100
2	Coordination of work	✓	✓	✓	✓	✓	✓	✓	100
3	Problem solving and solving	✓	✓	✓	✓	✓		✓	85.7
4	Communications and services		✓	✓	✓	✓	✓	✓	85.7
5.	Accountability	✓	✓	✓	✓	✓	✓	✓	100
No	Element of student professional attitude	R1	R2	R3	R4	R5	R6	R7	%
1	Care for quality	✓	✓	✓	✓	✓	✓	✓	100
2	Work fast, precise and efficient	✓	✓	✓	✓	✓	✓	✓	100
3	Appreciate your time	✓	✓	✓	✓	✓	✓	✓	100
4	Maintain reputation	✓		✓	✓	✓	✓	✓	85.7
No	Elements of mental readiness for work	R1	R2	R3	R4	R5	R6	R7	%
1	Critical and Creative Attitudes	✓	✓	✓	✓	✓	✓	✓	100
2	Logical judgment and objective attitude	✓	✓	✓	✓	✓		✓	85.7
3	Adult / independent attitude and controlled emotions	✓	✓	✓	✓		✓	✓	85.7

**Table 8 - Continue**

No	The element of mastery of speed	R1	R2	R3	R4	R5	R6	R7	%
4	Willingness to work	✓	✓	✓	✓	✓	✓	✓	100
5	Discipline attitude	✓	✓	✓	✓	✓	✓	✓	100
No	Elements of freedom/independence	R1	R2	R3	R4	R5	R6	R7	%
1	<b>Freedom in choosing a career</b>								
	- Choosing a career for one's own abilities	✓	✓	✓	✓	✓	✓	✓	100
	- Choosing a career does not depend on other people	✓	✓	✓		✓	✓	✓	85.7
2	<b>Self-stability in choosing a career</b>								
	- Believe in your own abilities	✓		✓	✓	✓	✓	✓	85.7
	- Feel happy in pursuing his career field	✓	✓	✓	✓	✓		✓	85.7
	- Optimistic about the career he has chosen	✓	✓		✓	✓	✓	✓	85.7
3	<b>Responsibility for the career that will be chosen</b>								
	- Try hard in your current career field	✓	✓	✓	✓		✓	✓	85.7
	- Diligent in pursuing career and vocational fields	✓	✓	✓	✓	✓	✓	✓	100
	- Be aware of the goals and ideals of the vocational career field	✓	✓	✓		✓	✓	✓	85.7
	- Be motivated by the career field you are working on	✓	✓	✓	✓	✓	✓	✓	100

#### 4. Discussion

Organizational habits arise because of (1) the actions of members of the organization and the relationships between members nurtured over time, (2) the environment, (3) the combination of outcomes and risks of organizational activities, (4) the expectations of the founders of the organization, developed in the organization (Anwar, 2004). Thus, the culture of the organization developed over a relatively long period of time as a controlled socialization process to adapt to the surrounding environment and to achieve the aspirations of the organization. Maslowski (2001: 9) states that school culture is the basic assumptions, norms and values, as well as the cultural artifacts lived by all members of the school that affect its function in the school. Further, Maslowski (2001: 12) states that school culture includes three aspects, namely content, homogeneity, and strength (Maslowski, 2001).

Maslowski (2001) states that school culture is characterized by six indicators. The six indicators are: teacher/teacher effectiveness, learning behaviour, trust, cooperation, joint planning, and transformational leadership. Six indicators describe teachers' beliefs to change student behaviour, teachers' commitment to learning and developing their skills, the interaction between teachers in enhancing interpersonal relationships, cooperation between school members, agreement on the future of the school, as well as power distribution and provision of facilities to support the school development process (Maslowski, 2001).

The School Culture Grid has been adapted and developed from the Samsul Hadi Certified Research instrument (The Construct of Elementary School Principal's Performance In Yogyakarta, Postgraduate UNY, 2008) used to measure school culture in primary school teachers (which was later adapted for student respondents) with (six) clues: (1) collaborative leadership, (2) collaboration between teachers, (3) professional development, (4) collective support, (5) shared goals, (6) learning sharing (Samsul, 2008).

The company culture domain was adapted and developed from the Dissertation Research instrument of Lubis (2006), which was used for team/employee product development (which was then adjusted to student respondents) with (six) indicators, namely: (1) intensive communication between members of the organization, (2) appreciation of expertise, (3) involvement of experienced management with the necessary knowledge in operational activities, (5) work ethic, and (6) trustworthy given the freedom. (Sudjaswin, 2006).

The WBL Learning Quality Domain was developed from the theory of factors influencing the quality of learning from several educational studies. Among other factors that determine the quality of learning are: lecturer factor (lecturer quality), curriculum factor (curriculum set quality), students (student quality), and infrastructure (quality of learning facilities). Of the four dominant factors selected, then described in the indicator: (a) Teacher quality: formal diploma, mastery of teaching materials, rational presentation of teaching materials, effectiveness of face-to-face use, attractiveness of teaching methods, clarity/strategy of teaching methods, suitability of teaching aids and materials, instructor interaction with students, lecturer response to questions/students' opinions, provide examples to explain the presentation of materials, feedback on the tasks that have been done by the instructor, the suitability of the tasks given by the instructor with the teaching materials, accuracy (appropriateness) of teacher assessment, performance of lecturers in Teaching and learning process as a whole. (b) Quality of curriculum devices: availability/clarity of course structure/training materials, availability/clarity of syllabus (outline) of course/training materials, availability/clarity of course planning materials/training materials. (c) Learning resources: Availability/clarity of learning resources: books, textbooks, internet,

other resources, Availability of learning infrastructure: space, furniture, air conditioning, laboratories, workshops/shops, audio/visuals, Availability of theoretical learning equipment: exercise books, manuals, repair guidelines Availability of practical learning facilities: training objects, measuring instruments, service tools. (d) Student quality: Serious/serious in attending lectures/training, readiness to receive materials, the intensity of communication with teachers, response to assignments given by teachers. Overall, student performance in the Technical and Vocational Education Training (TVET) system in producing quality students should involve vocational schools and industry (Abd Samad, Rashid, Sern, Harun and Fazelah, 2017). The TVET system used in Public Training Institutions (PTSI) must equip their graduates to possess both behavioural competencies and employability skills (Abd Samad et. al, 2017). This will assist the graduates to be ready for the world of work (Ismail, Kasman, Sumarwati, Yunus and Samad, 2019).

## 5. Conclusion

The higher involvement of vocational schools with industry and students who follow vocational education, the better the quality. Work-Based Learning (WBL) is an effort to make students learn, to shape students in obtaining information, ideas, skills, values, ways of thinking, ways to express themselves, and how to learn. Work-Based Learning (WBL) is an individual's effort to build knowledge within themselves. In the process of learning change and improve the quality of ability, knowledge, and learning skills in collaboration with industry.

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