

Transferable skills perception analysis of vocational high school teachers on-in-on-in dual skills program

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ABSTRACT

The Ministry of Education and Culture in 2016 made one of the breakthrough programs in an effort to organize and fulfill productive teachers in Vocational High Schools (VHS), namely through the Dual Skills Program (DSK). The DSK is implemented to support the improvement of vocational education as well as education and job skills training. Meanwhile, DSK participating teachers must have new competencies that can be used to teach productive subjects in certain areas of expertise. Increasing the competence of DSK participants needs to take into account the development of transferable skills obtained after conducting training or in the process of implementing DSK. The aims of this study are to 1.) Determine the types of transferable skills that DSK participant teachers need to possess; and 2.) Analyze and describe the transferable skills of teachers of vocational high school on-in-on-in DSK in Malang Regency. This study uses a quantitative approach. The samples used were all vocational high school teachers who took part in the on-in-on-in DSK in Malang Regency, while the respondent's data collection used a questionnaire. The results showed that the types of transferable skills consist of communication skills, planning skills, interpersonal skills, work attitude skills, organizational skills, financial management skills, and critical thinking skills. The transferable skills of teachers of vocational high school on-in-on-in DSK in Malang Regency were in a good category.



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INTRODUCTION

The Ministry of Education and Culture in 2016 made one of the breakthrough programs in an effort to organize and fulfill productive teachers in Vocational High Schools (VHS) through the Dual Skills Program (DSK). The DSK is implemented to support the improvement of vocational education as well as education and job skills training. Mutiara (2018) stated that Indonesia currently needs approximately 91 thousand vocational teachers. Furthermore, Mutiara (2018) explained that DSK participants had to go through 12 months with four stages of ON (self-study at home school) and IN (study in industry and the Center for Development and Empowerment of Education and Education Personnel/P4TK) to get a certificate of expertise as a productive teacher. So that at the end of the DSK implementation, participants can get a double certificate.

In Presidential Instruction No. 2 of 2015, the Government of Indonesia, through the Directorate General of GTK, organized a skill certification program and educator certification for VHS teachers called the Dual Skills Program (DSK). DSK is a program to increase teaching authority for teachers who teach normative and adaptive subjects to become productive subject teachers in

vocational high schools in certain skill competencies. Normative and adaptive teachers are expected to be able to meet the shortage of productive teachers in vocational schools through training to add adaptive to productive teaching authority. Normative and adaptive teachers are provided with training and education through an on-in-on-in pattern and end with expertise certification and educator certification. The DSK will produce qualified VHS teachers and can meet the required number of teachers.

Meanwhile, DSK participating teachers must have new competencies that can be used to teach productive subjects in certain areas of expertise. Teaching some life skills to students, especially in vocational high schools, is something that is very important, considering the purpose of VHS is to prepare students to become reliable workers. Increasing the competence of DSK participants needs to take into account the development of transferable skills obtained after conducting training or in the process of implementing DSK. Transferable skills play a very important role in a person's ability to adapt to new social conditions, including teachers who take part in DSK. By knowing in advance, the extent of transferable skills possessed by DSK participating teachers, the final outcome of the training can be well predicted. For example, suppose a trainee has a weakness in one type of transferable skill, then in the training process. In that case, this weakness will be improved, and vice versa. If other types of transferable skills are deemed to have been completed well, it must be maintained and improved. This research, it will be very helpful in preparing and predicting the readiness of DSK participants related to several transferable skills that must be developed. It is hoped that after the program is completed, DSK participants will not only be equipped with productive competencies but also become excellent teachers by possessing capable transferable skills to be taught to every vocational student, as well as equipping them to face the demand for workforce skills that are adaptable to the times.

Transferable skills, better known as life skills, are very important for now and in the future. Moreover, in vocational high schools whose aim is to prepare graduates to be ready to enter the world of work, transferable skills are very important for them because companies will prefer graduates who have transferable skills. Pukelis and Pileicikiene (2006), Asiabaka (2008), and Alimah and Marianti (2016) argue that in the 21st century, transferable skills are needed by someone, especially with the rapid development of technology. Furthermore, several important components in transferable skills are: 1.) Self-management; 2.) Planning and organizing; 3.) Communication; 4.) Working with others; 5.) Problem solving; 6.) Initiative; 7.) Enterprise; 8.) Applying numeracy; 9.) Technology skills; and 10.) Learning. These skills are very important, and every student must have them because they are applicable and can be applied in all vocational education and in every social situation in their environment. In line with this, Arensdorf (2009), Inti et al. (2018), and Mitchell (2008) stated that essential skills, when combined with knowledge and a good attitude, will prepare the basis for lifelong learning and readiness to compete in a challenging world of work. Some of these skills include: 1.) Communication skills; 2.) Numeracy skills; 3.) ICT skills; 4.) Thinking and problem-solving skills; 5.) self-management and competitive skills; 6.) Study and work skills; 7.) Social skills; 8.) Physical skills; and 9.) Aesthetic skills.

Meanwhile, Paryono et al. (2014) stated that the concept of categorizing transferable skills had become an issue of vocational education in Indonesia for the past few years. Several concepts of transferable skills have been tested in the formal education system in Indonesia, but the results have not shown any development in the level of skills expected by DUDI as a graduate user. Almost all education systems around the world focus on preparing the younger generation as nation builders who must have skills in life skills or generic skills, necessary skills, competency skills, psychosocial competence, employability skills, and transferable skills (Sharma, 2003; Yassin et al., 2008). Transferable skills are skills that are indispensable in all fields of work where a person can work flexibly and adaptable (Bennett, 2002).

The Ministry of Education and Culture of the Republic of Indonesia (2005) explains that the Dual Skills Program (DSK) transfers the function of teachers from certain types of teachers to other types of teachers, for example, from mathematics teachers to biology teachers Indonesian language to English teachers. Teachers can be transferred to the education unit if the number of teachers is excessive and it is impossible to transfer them. The dual expertise program can be carried out on teachers, both those who already have an educator certificate and those who do not. The dual

expertise program for teachers can be carried out in an educational unit or followed by a transfer of duties/mutations between educational units, between education levels, between types of education, between districts/cities, between provinces, and transfer of functions to/from structural positions. double, the teacher must follow: 1.) Certification in accordance with the new skills/subjects; 2.) Competency improvement training for new skills/subjects; or 3.) Appropriate academic qualification eye new lessons taught.

Furthermore, the types of teachers according to the 2006 Curriculum that is no longer needed in the 2013 Curriculum must be equipped with other skills or converted or given the authority to teach other subjects in the 2013 Curriculum. Study forget S-1/D-IV qualification, while those who have not been certified must follow certification according to provisions. Teachers are interested in converting competence skills to register with the transfer of functions implemented program. After registering, the teacher will participate in IN-ON-IN training to master the competency skills that will be used taught. In the first ON process, the teacher continues to teach adaptively at the original school. However, the teacher must learn independently guided by the competence of productive skills with the national instructor or appointed supervisor. Study time spends 300 hours of lessons and completes three modules. Places of learning will be designed to be in schools that have been standardized to hold these activities (The Ministry of Education and Culture of the Republic of Indonesia, 2005).

Teachers will attend focused and intensive training in theory and practice in the first IN process. Teachers attend training with guided self-learning reflection methods by completing 400 hours of lessons in 4 modules. The learning materials provided are professional, pedagogic, entrepreneurship material, and also practices at DUDI. In the second ON process, the teacher will practice teaching the results of the material in the first IN at the target school. Even though they teach, teachers continue to study independently and are guided by 200 hours of study time and complete two teacher modules.

In the second IN process, the teacher carries out training on sharpening productive material and guided self-learning reflection by completing one learning module with 100 lesson hours. Places of learning can be in P4TK, referral vocational schools, LPMP, agency, and training. In addition, teachers also carry out practice at DUDI. After completion, the teacher will conduct teacher certification through the PLPG pattern (theory and practice of learning for nine days). The place in the tertiary institution that organizes teacher certification is determined by the Minister and has a similar study program. The certified competencies are professional, pedagogical, personality, and social competencies. The appointed instructors are lecturers who the Ministry of Research has appointed, Technology and Higher Education and have an instructor register number. Teachers will also take performance tests and follow UKG (The Ministry of Education and Culture of the Republic of Indonesia, 2005).

The learning methods applied to the first and second IN are: 1.) Applying an adult education approach (andragogy) that is in accordance with the practical needs and self-development of participants, is interactive between participants and facilitators as well as between participants and participants, and learning takes place in a relaxed learning atmosphere, dynamic, and fun; 2.) Learning in education and training uses scientific (scientific) thinking with strategies or learning models used including discovery learning, inquiry learning, problem based learning, project-based learning, and design-based learning; and 3.) Number of participants per group for professional competence between 10 - 20 people or according to the character of each skill package.

RESEARCH METHOD

This research is descriptive research because the data generated is in the form of exposure and percentage, which aims to describe perceptions DSK participant teachers are related to the transferable skills they have so far. While the research approach used in this study uses a quantitative research approach to describe the results of the study, determine the effect of independent variables on the dependent variable, and the tendency of the level of the variables in the study. The population in this study were all teachers who participated in the dual skills program, with a sample of all

vocational high school teachers who participated in the on-in-on-in dual skills program in Malang Regency.

The instrument for this research consisted of questions that related to the various transferable skills they have so far. As for indicators used, include 1.) Communication skills, 2.) Research/planning/investigation; 3.) Human relations/interpersonal; 4.) Work survival/attitude; 5.) Organization/management/leadership/decision making; 6.) Financial management; and 7.) Critical thinking/problem-solving. This Research using a 4-choice Likert scale, namely VNC = Very Not Confidence; NC = Not Confidence; C = Confidence; and VC = Very Confidence. While the categorization of the achievement of the percentage of each respondent can be seen in the following [Table 1](#).

Table 1. Categorization of Achievement Percentage

Percentage	Category
≥ 80%	Have good transferable skills very good
65% - 79%	Have good transferable skills good
55% - 64%	Have good transferable skills quite good
≤ 54%	Have good transferable skills not good

In data collection techniques, there are two methods used in data collection in this study, namely questionnaires and documentation. While the data analysis used is descriptive statistical analysis techniques. The descriptive statistical analysis technique is an analytical technique that is used to analyze data by describing or describing the collected data as it is without the intention of making conclusions that apply in general or generalizations (Sugiyono, 2016).

RESULT AND DISCUSSION

This study aims to determine the types of transferable skills that need to be possessed by DSK participating teachers and to analyze and describe the transferable skills possessed by teachers of Vocational High School on-in-on-in dual skills program in Malang Regency. The following are the study results in terms of communication skills, research/planning/investigation, human relations / interpersonal, work survival/attitude, organization/management/leadership/decision making, financial management, critical thinking/problem-solving.

Communication Skill

The results of teacher communication skills in the dual skills program can be seen in [Table 2](#). Based on [Table 2](#), the results obtained from each selected statement item can be described by looking at the frequency of each statement's answer and presented based on the transferable ability level of the DSK participating teachers. The following describes the transferable skills from the aspect of communication skills. 29.3% of teachers have very good communication skills, 65.2% are good, 5.2% are quite good, and 0.3% are not very good.

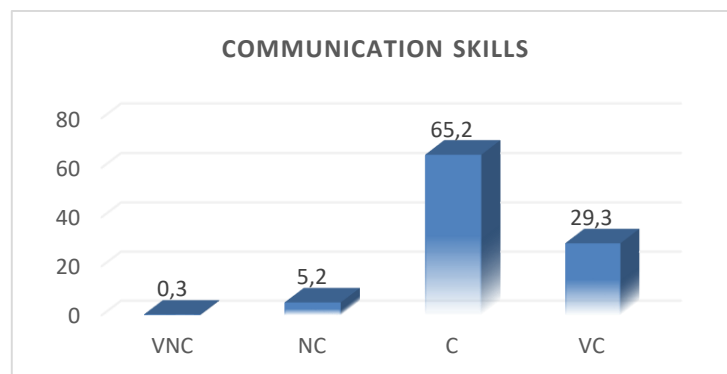


Figure 1. Diagram of DSK Teacher Communication Skills

Table 2. DSK Teacher Communication Skills

No	STPD		TPD		PD		SPD	
	F	%	F	%	F	%	F	%
1	0	0	6	3.49	109	63.37	57	33.14
2	0	0	0	0.00	107	62.21	65	37.79
3	0	0	0	0.00	101	58.72	71	41.28
4	0	0	8	4.65	122	70.93	42	24.42
5	0	0	11	6.40	108	62.79	53	30.81
6	0	0	5	3.09	109	67.28	48	29.63
7	0	0	11	6.40	114	66.28	47	27.33
8	0	0	8	4.65	121	70.35	43	25.00
9	0	0	10	5.81	106	61.63	56	32.56
10	1	0.58	12	6.98	119	69.19	40	23.26
11	6	3.49	26	15.12	107	62.21	33	19.19
12	0	0	6	3.49	118	68.60	48	27.91
13	0	0	9	5.23	111	64.53	52	30.23
14	0	0	10	5.81	105	61.05	57	33.14
15	1	0.58	11	6.40	119	69.19	41	23.84
16	1	0.58	9	5.23	111	64.53	51	29.65
		0,3		5,2		65,2		29,3

Planning Skills

The results of the planning skills of teachers participating in the dual skills program can be seen in Table 3. Based on Table 3, the results obtained from each selected statement item can be described by looking at the frequency of each statement's answer and presented based on the transferable ability level of the DSK participating teachers. The following describes the transferable skills from the planning skills aspect. 23.87% of teachers have very good planning skills, 71.09% good, 4.81% quite good, and 0.23% less good.

Table 3. Planning Skills for DSK Teachers

No	STPD		TPD		PD		SPD	
	F	%	F	%	F	%	F	%
1	2	1.16	24	13.95	120	69.77	26	15.12
2	0	0.00	18	10.47	111	64.53	43	25.00
3	2	1.16	7	4.07	115	66.86	48	27.91
4	0	0.00	10	5.81	125	72.67	37	21.51
5	1	0.58	8	4.65	124	72.09	39	22.67
6	1	0.58	4	2.33	114	66.28	53	30.81
7	0	0.00	12	6.98	115	66.86	45	26.16
8	0	0.00	4	2.33	123	71.51	45	26.16
9	0	0.00	5	2.91	129	75.00	38	22.09
10	0	0.00	6	3.49	126	73.26	40	23.26
11	0	0.00	7	4.07	129	75.00	36	20.93
12	0	0.00	7	4.07	133	77.33	32	18.60
13	1	0.58	16	9.30	124	72.09	31	18.02
14	0	0.00	5	2.91	126	73.26	41	23.84
15	0	0.00	2	1.16	123	71.51	47	27.33
16	0	0.00	5	2.91	123	71.51	44	25.58
17	0	0.00	7	4.07	117	68.02	48	27.91
18	0	0.00	2	1.16	124	72.09	46	26.74
		0,23		4,81		71,09		23,87

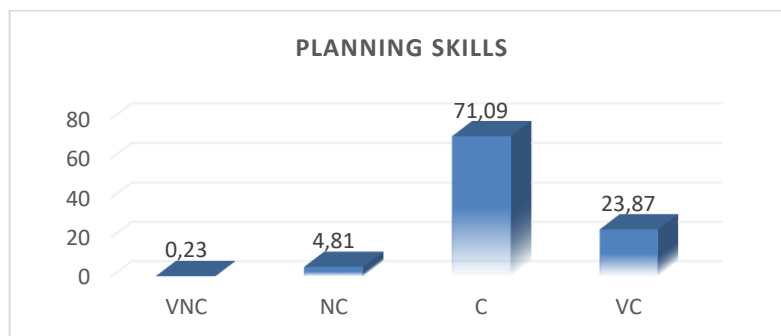


Figure 2. DSK teacher's Planning Skills Ability Diagram

Interpersonal Skills

The results of the interpersonal skills of teachers participating in the dual skills program can be seen in Table 4. Based on Table 4, the results obtained from each selected statement item can be described by looking at the frequency of each statement's answer and presented based on the transferable ability level of the DSK participating teachers. The following is a description of the transferable skills from the interpersonal skills aspect. 44.59% of teachers fall into the category of having very good interpersonal skills, 53.09% good, 2.25% quite good, and 0.07% less good.

Table 4. Interpersonal Skills for DSK Teachers

No	STPD		TPD		PD		SPD	
	F	%	F	%	F	%	F	%
1	1	1.16	1	13.95	76	69.77	94	15.12
2	0	0.00	2	10.47	76	64.53	94	25.00
3	0	1.16	1	4.07	74	66.86	97	27.91
4	0	0.00	4	5.81	75	72.67	93	21.51
5	0	0.58	0	4.65	80	72.09	92	22.67
6	0	0.58	7	2.33	96	66.28	69	30.81
7	0	0.00	1	6.98	64	66.86	107	26.16
8	0	0.00	3	2.33	89	71.51	80	26.16
9	1	0.00	3	2.91	81	75.00	87	22.09
10	0	0.00	15	3.49	108	73.26	49	23.26
11	0	0.00	10	4.07	108	75.00	54	20.93
12	0	0.00	2	4.07	103	77.33	67	18.60
13	0	0.58	2	9.30	110	72.09	60	18.02
14	0	0.00	3	2.91	115	73.26	54	23.84
15	0	0.00	5	1.16	104	71.51	63	27.33
16	0	0.00	3	2.91	102	71.51	67	25.58
		0.07		2.25		53.09		44.59

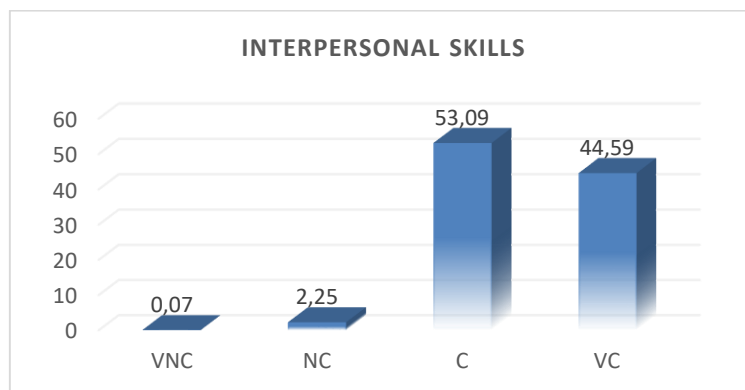


Figure 3. Interpersonal Skills Diagram of DSK Teachers

Work Attitude Skills

The results of the interpersonal skills of teachers participating in the dual skills program can be seen in Table 5. Based on Table 5, the results obtained from each selected statement item can be described by looking at the frequency of each statement's answer and presented based on the transferable ability level of the DSK participating teachers. The following is a description of the transferable skills from the aspect of work attitude skills. 32.05% of teachers have very good work attitude skills, 63.01% good, 4.47% quite good, and 0.47% less good.

Table 5. Work Attitude Skills for DSK Teachers

No	STPD		TPD		PD		SPD	
	F	%	F	%	F	%	F	%
1	0	0.00	7	4.07	110	63.95	55	31.98
2	0	0.00	2	1.16	74	43.02	96	55.81
3	0	0.00	6	3.49	98	56.98	68	39.53
4	0	0.00	7	4.07	99	57.56	66	38.37
5	2	1.16	19	11.05	114	66.28	37	21.51
6	0	0.00	8	4.65	115	66.86	49	28.49
7	8	4.65	18	10.47	106	61.63	40	23.26
8	0	0.00	4	2.33	120	69.77	48	27.91
9	0	0.00	1	0.58	115	66.86	56	32.56
10	2	1.16	12	6.98	105	61.05	53	30.81
11	0	0.00	2	1.16	107	62.21	63	36.63
12	0	0.00	6	3.49	123	71.51	43	25.00
13	0	0.00	8	4.65	121	70.35	43	25.00
14	0	0.00	6	3.49	110	63.95	56	32.56
15	0	0.00	9	5.23	103	59.88	60	34.88
16	1	0.58	8	4.65	114	66.28	49	28.49
		0.47		4.47		63.01		32.05

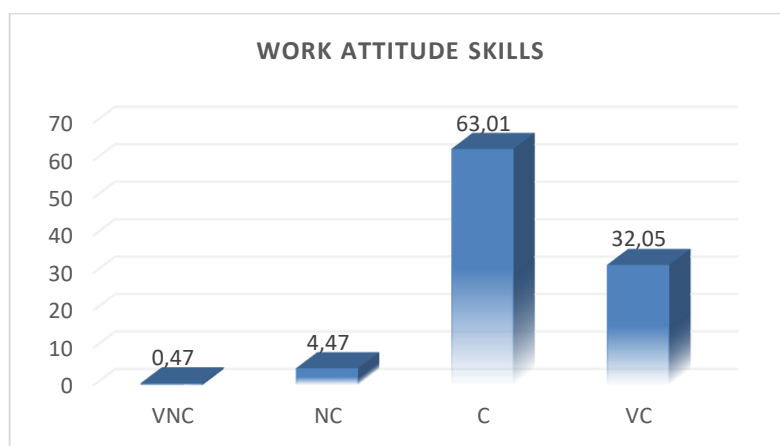


Figure 4. DSK teacher's Work Attitude Skills Diagram

Organization Skills

The results of the organizational skills of teachers participating in the dual skills program can be seen in Table 6. Based on Table 6, the results obtained from each selected statement item can be described by looking at the frequency of each statement's answer and presented based on the transferable ability level of the DSK participating teachers. The following is a description of the transferable skills from the organizational skills aspect. 26.81% of teachers have very good organization skills, 66.65% good, 6.13% quite good, and 0.42% less good.

Tabel 6. Organization Skills of DSK Teachers

No	STPD		TPD		PD		SPD	
	F	%	F	%	F	%	F	%
1	0	0.00	16	9.30	119	69.19	37	21.51
2	2	1.16	12	6.98	121	70.35	37	21.51
3	0	0.00	5	2.91	116	67.44	51	29.65
4	0	0.00	8	4.65	111	64.53	53	30.81
5	0	0.00	9	5.23	112	65.12	51	29.65
6	0	0.00	20	11.63	109	63.37	43	25.00
7	1	0.58	15	8.72	105	61.05	51	29.65
8	0	0.00	11	6.40	115	66.86	46	26.74
9	0	0.00	6	3.49	115	66.86	51	29.65
10	0	0.00	6	3.49	121	70.35	45	26.16
11	0	0.00	3	1.74	93	54.07	76	44.19
12	0	0.00	4	2.33	123	71.51	45	26.16
13	1	0.58	20	11.63	113	65.70	38	22.09
14	0	0.00	5	2.91	127	73.84	40	23.26
15	0	0.00	5	2.91	123	71.51	44	25.58
16	0	0.00	9	5.23	120	69.77	43	25.00
17	1	0.58	3	1.74	111	64.53	57	33.14
18	0	0.00	8	4.65	122	70.93	42	24.42
19	12	6.98	33	19.19	90	52.33	37	21.51
20	2	1.16	14	8.14	109	63.37	47	27.33
21	0	0.00	7	4.07	122	70.93	43	25.00
22	0	0.00	16	9.30	125	72.67	31	18.02
23	1	0.58	24	13.95	115	66.86	32	18.60
24	0	0.00	13	7.56	121	70.35	38	22.09
25	0	0.00	3	1.74	120	69.77	49	28.49
26	0	0.00	5	2.91	114	66.28	53	30.81
27	0	0.00	11	6.40	114	66.28	47	27.33
28	0	0.00	4	2.33	104	60.47	64	37.21
		0.42		6.13		66.65		26.81

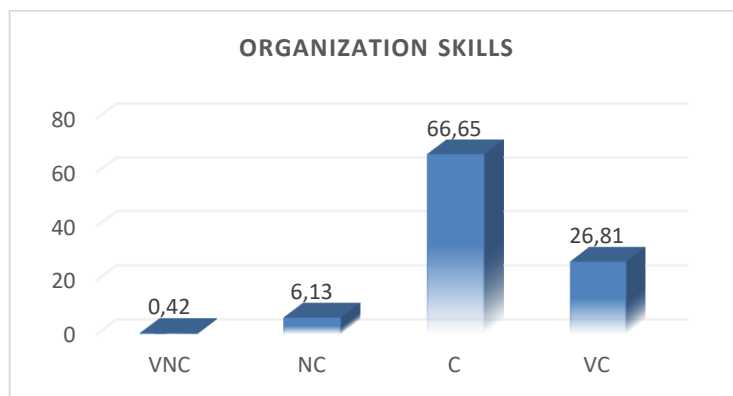


Figure 5. DSK teacher Organization Skills Ability Diagram

Financial Management Skills

The results of the financial management skills of teachers participating in the dual skills program can be seen in Table 7. Based on Table 7, the results obtained from each selected statement item can be described by looking at the frequency of each statement's answer and presented based on the transferable ability level of the DSK participating teachers. The following is a description of the transferable skills from the aspect of financial management skills. 23.39% of teachers have very good financial management skills, 63.11% are good, 12.79% are quite good, and 0.71% are not very good.

Table 7. Financial Management Skills for DSK

No	STPD		TPD		PD		SPD	
	F	%	F	%	F	%	F	%
1	0	0.00	16	9.30	113	65.70	43	25.00
2	1	0.58	30	17.44	100	58.14	41	23.84
3	2	1.16	38	22.09	98	56.98	34	19.77
4	1	0.58	11	6.40	117	68.02	43	25.00
5	1	0.58	25	14.53	105	61.05	41	23.84
6	0	0.00	16	9.30	109	63.37	47	27.33
7	5	2.91	28	16.28	109	63.37	30	17.44
8	0	0.00	11	6.40	119	69.19	42	24.42
9	1	0.58	23	13.37	107	62.21	41	23.84
		0.71		12.79		63.11		23.39

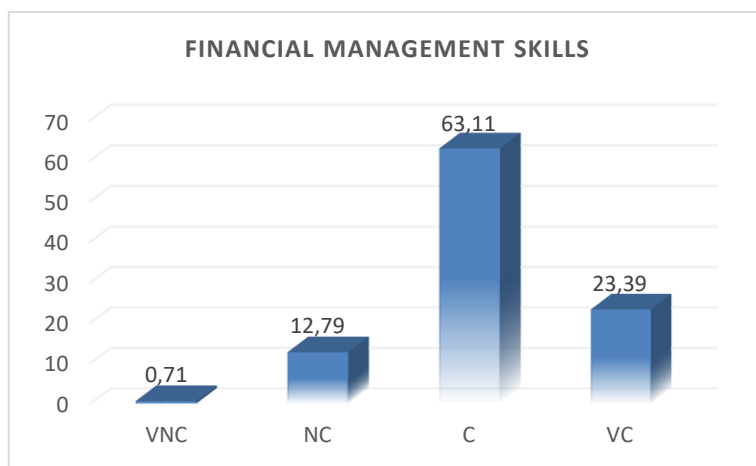


Figure 6. DSK teacher's Financial Management Skills Chart

Critical Thinking Skills

The results of the critical thinking skills of teachers participating in the dual skills program can be seen in **Table 8**. Based on **Table 8**, the results obtained from each selected statement item can be described by looking at the frequency of each statement answer and presented based on the transferable ability level of the DSK participating teachers. The following is a description of the transferable skills from the critical thinking skills aspect. 24.75% of teachers have very good critical thinking skills, 69.52% good, 5.73% quite good, and 0% less good.

Tabel 8. Critical Thinking Skills for DSK Teachers

No	STPD		TPD		PD		SPD	
	F	%	F	%	F	%	F	%
1	0	0.00	16	9.30	121	70.35	35	20.35
2	0	0.00	8	4.65	123	71.51	41	23.84
3	0	0.00	6	3.49	113	65.70	53	30.81
4	0	0.00	9	5.23	117	68.02	46	26.74
5	0	0.00	8	4.65	126	73.26	38	22.09
6	0	0.00	13	7.56	118	68.60	41	23.84
7	0	0.00	9	5.23	119	69.19	44	25.58
		0.00		5.73		69.52		24.75

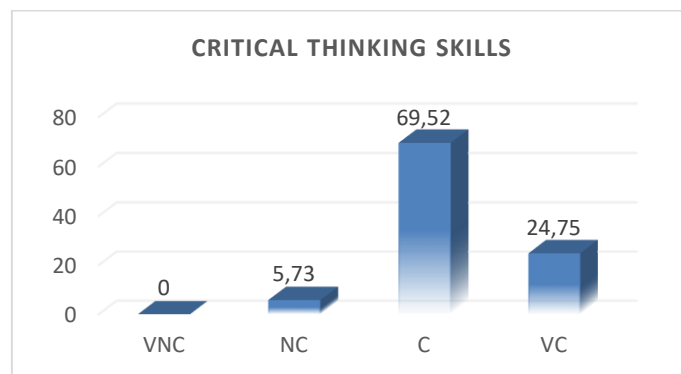


Figure 7. Diagram of DSK Teacher's Critical Thinking Skills

Based on these results, it can be seen that there are types of transferable skills possessed by vocational high school teachers, especially in facing the the industrial revolution. In line with the intense competition for labor. The types of transferable skills consist of: 1.) Communication skills; 2.) Research/Planning/Investigation skills; 3.) Human relations/interpersonal skills; 4.) Work survival/attitude; 5.) Organization/Management/leadership/ Decision making; 6.) Financial management; and 7.) Critical thinking/Problem solving.

In general, the DSK participant teachers have good transferable skills, with almost over 70% of the respondents. About 6% fall into the sufficient category, and less than 1% are not good at mastering transferable skills. Finding interesting is in the type of work survival/attitude teacher. When viewed from the category between very good and good, both almost close to the same amount. This is possible because the teacher in work already used to use attitude good in their work environment. As for more clearly each type of transferable skills can be described as follows: 1.) Communication skills teacher for DSK participants is good; 2.) Planning skills of DSK participant teachers is good; 3.) Interpersonal skills of DSK participant teachers is good; 4.) Work, attitude DSK participants, is good; 5.) Organization skill teachers participating in DSK is good; 6.) Financial skill of DSK participant teachers is good; and 7.) Critical thinking skill of DSK participant teachers is good.

CONCLUSION

Based on the description of the transferable skills perception analysis of vocational high school teachers on-in-on-in dual skills program, the following conclusions were: 1.) DSK participant teachers need to possess transferable skills: communication skills, planning skills, interpersonal skills, work attitude skills, organization skills, financial management skills, and critical thinking skills; 2.) The transferable skills of teachers of Vocational High School on-in-on-in dual skills program in Malang Regency are included in the good category.

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