Effect of Competency, Work Motivation, Industrial Work Experience and Facilities on the Readiness of Work for Senior High School Graduates in Electro Expertise Programs

Abur Mustikawanto, Mukhidin, Ade Gafar Abdullah, Bachtiar Hasan
West Java Educational Departmen

Abstract. The results of this study are (1) competence has a positive and significant effect on the work readiness of vocational graduates in the Electrical Expertise Program including high criteria, this variable influences work readiness, (2) work motivation has a positive and significant effect on work readiness of vocational graduates, this variable influences work readiness, (3) the internship experience has a positive and significant effect on the work readiness of vocational graduates in the Electrical Expertise Program including the high category, this variable influences work readiness, (4) work practice experience Industry positively and significantly affects vocational graduates The Electrical Expertise Program is in the medium category, this variable influences work readiness, (5) competency, work motivation, experience of internship and learning facilities together have a positive and significant effect on work readiness of vocational graduates Electro Skills Program is very high High, these four variables has a together affect work readiness.

1. Introduction

Education is very important for a country. In addition to having a big goal to develop the country, efforts to prepare workers, and improve human resources are also very important and needed to meet the needs of the workforce. As one of the educational institutions, Vocational High Schools (Vocational Schools) have an effort to prepare human resources who are ready to use to meet the workforce, in accordance with the program of expertise that their students have (At, Class, Christian, & Rosyid, n.d.).

Vocational school is formal education that has a special training pattern to direct students to become graduates who are ready to plunge professionally and participate in the business or corporate world. Article 15 of the National Education System Law states that vocational education is secondary education that prepares students to work in certain fields. To support this goal, Dual System Education was designed as an embodiment of link and match between educational institutions and the world of work. This is done in order to create graduates who have abilities that are in accordance with the world of work (Kartini & Martono, 2016).

Vocational School is an educational institution that makes skilled workers to prepare students to enter the workforce by fulfilling competencies in various fields (Guidance et al., 2014).
The existence of Vocational Schools in preparing trained workers greatly helps the business world, but not all SMK graduates can meet the needs of the workforce in accordance with the competency of their expertise (Guidance et al., 2014).

Globalization is defined as a process whereby there will be a flow of people, economic units, goods and services from outside the borders of the world. This definition indicates the principle of openness where the boundaries between countries are neglected, so that there is freedom for humans, economic units, goods and services to enter / enter a country. Furthermore, this definition also implies the existence of equal rights and enforcement for each country (Noorlisyati in Islahuddin and Soesi, 2002).

The existence of these developments needs to be anticipated by graduates or the younger generation in order to be able to demonstrate their existence in the era of globalization which inevitably comes soon to hit the country. Therefore, education and vocational education must be able to equip graduates with the material and competencies needed to win the competition.

2. Method
The research method used in this study is by using descriptive research methods with quantitative approaches. Descriptive methods involve certain phenomena based on observations or explorations of correlations between two or more phenomena (Williams, 2007). While the quantitative approach is research that explains the phenomenon by collecting numerical data which is analyzed using mathematical methods based on certain statistics (Creswell, 2009). Data in the form of numbers are then described and described in the form of sentences to produce conclusions in the form of statements that can be understood and generally accepted (Sukamolson, 2007).

3. Result and Discussion
3.1. Effect of Competence on Work Readiness of Vocational School Graduates of the Electrical Engineering Expertise Program,
The higher the competency possessed by students, the higher the readiness to work and the higher the absorption of labor from Electronic Expertise Competence. Achieving competencies in the learning process is very influential on the high and low achievement of knowledge, psychomotor aspects and student attitudes. Vocational graduates are not only competent enough, but must have character, work culture, religious values and norms, hard skills, soft skills, entrepreneurial character and life skills. The learning process in SMK must be real learning, real assessment, real job and real life.

3.2. Work Motivation Against Work Readiness of Vocational School Graduates of the Electrical Engineering Expertise Program,
The high motivation of student learning will have an impact on the increasing desire to increase the creativity and innovation possessed by students so as to spur the Vocational School to improve HR competencies, infrastructure and learning process activities, both through teaching factory learning, teaching industry, techno park, and so on. The high motivation to learn will have an impact on work motivation, one's motivation to work will appear or be seen through the responsibility of doing work, achievement or competence achieved, development of himself and the ability to act. Work motivation will also appear among them always responsible for all the work they do, always trying to achieve the best work performance, independent, diligent, broad-minded in the scope of their work, full of creativity and creating innovations for the efficiency of their work.

Motivation of student work in vocational students is very important because with high motivation can encourage students to be more active in increasing the provision of good or competent knowledge, skills and work attitudes and industrial culture, students will try optimally to prepare themselves to become workers who are competent in accordance with the competencies they do, so that students are more ready to work and become entrepreneurs.
3.4 Influence of Industrial Work Experience on Work Readiness of Vocational School graduates in the electro expertise program in the face of the era of globalization in the province of West Java,

The experience of student internship is very useful for preparing vocational students to enter the workforce. Experience gained during internship can provide real insight into the world of work and entrepreneurship. As long as internship students get real guidance and learning in the industry and in the school teaching factory, the knowledge, skills and work attitudes that are obtained will influence the way of thinking, behaving, and behaving in carrying out work. From the mental readiness of students will be a person with character and trained to always be disciplined, responsible, wise and fast acting in overcoming problems, able to work together and adapt to the work environment.

The internship experience will provide a full picture of the industry cycle which is directly the application and implementation of the National Mandatory, Regional Mandatory, and Specialization courses in C1, C2 and C3 in accordance with Expertise Competence. Industrial work practices must be adapted to the Student Skills Competency, in the implementation of the mandatory 6 months, adapted to the conditions and facilities of learning infrastructure, preferably in the model teaching factory in schools, which ends the Competency Test, in order to develop competencies, characters, values and norms religion, work culture, soft skills, and hard skills, entrepreneurial character, students.

3.5. The Effect of Learning Facilities on Work Readiness of Vocational Graduates of Electrical Engineering Expertise Program in Facing the Globalization Era in West Java Province,

Vocational schools must have industry standard learning facilities of at least 75 percent in order to realize learning objectives according to Expertise Competence. Fulfillment of infrastructure facilities will determine the apprenticeship model for vocational students, namely if the learning infrastructure facilities are only fulfilled 25%, students are required to be skilled in the industry, if the learning infrastructure is only 50% fulfilled, students will be dual mode or Dual System Education, for example 3 days in the industry 3 school days, or 3 months in school and 3 months in the industry, but if the facilities for learning infrastructure have been fulfilled 75% - 100%, then the apprenticeship should be implemented for 6 months at the School which ends with the Competency Test. In the teaching factory learning model in schools, students will be more free to create and innovate significantly by developing character, work culture and entrepreneurial character.

Learning infrastructure facilities in Vocational School that are industry standard, must be able to reach and, meet the competencies expected of students and are needed by the world of work and entrepreneurship, so that these infrastructure can have efficient economic value, in addition to fulfilling the learning process also to support teaching factory.

3.6. Effect of Competence, Work Motivation, Experience of Industrial Work Practices, and Learning Facilities for Work Readiness of Vocational Graduates of Electrical Engineering Expertise,

Vocational students who have appropriate competencies, high work motivation, have experience in industrial workshops and teaching factories in schools, are supported by optimal infrastructure facilities to fulfill the learning process, as well as those that have economic value, so it will have a huge influence on work readiness in accordance with the competence of his expertise.

4. Conclusion

Based on the discussion previously described, the following conclusions are obtained : 1) Competence has a positive and significant effect on Work Readiness graduates of the Electrical Engineering Program are in the high category, 2) Work Motivation has a positive and significant effect on Work Readiness graduates of the Electrical Engineering Program are in the high category; 3) The internship experience has a positive and significant effect on the Work Readiness of SMK graduates in the Electrical Expertise Program including the high category; 4) Learning Facilities have a positive and
significant effect on Work Readiness graduates of the Electrical Engineering Program are in the high category; 5) Competence, work motivation, experience of internship and learning facilities together have a positive and significant effect on Work Readiness of SMK graduates in the Electrical Skills Program including high categories.

5. References
Ali & Asrori. (2008). Psikologi Remaja. Jakarta: Bumi Aksara.
Anas S. (2001). Pengantar Evaluasi Pendidikan. Jakarta: PT. Raja Grafindo Persada Anggarani, A., Prasetyoning, W., & Safitri, V. I. (2015). Penguatan Sektor Umkm Sebagai Strategi Menghadapi Mea 2015. Jurnal Ekonomi Volume 5 Nomor 1, Mei 2014, 5, 42–48.
Aimsworth, W. James and Roscigno Vincent J. (2005), Stratification, School Work Linkages and Vocational Education, Social Forces : Sept 2005 : 84, 1, Proquest pg 257.
Arif Furchan. (2007). Pengantar penelitian Dalam Pendidikan. Yogyakarta: Pustaka Pelajar.
Arif Nur Umar, Wardan Suyanto, (2014), Evaluasi Praktik Kerja Industri Peserta Sidik Program Keahlian Teknik Otomotif SMK Giripuro Sumpiuh, Jurnal Pendidikan Vokasi, Vol.4, Nomor 2, Jan 2014.
Baiti Ahmad Awaluddin, Sudji Mumadi, (2014), Pengaruh Pengalaman Prakyik, Prestasi Belajar Dasar Kejuruan dan Dukungan Orang Tua Terhadap Kesiapan Kerja Siswa SMK, Jurnal Pendidikan Vokasi, Vol 4, Nomor 2, Jun, 2014.
Bakker, A. B., Schaufeli, W. B., Leiter, M. P., Taris, T. W. (2008). Work engagement: An emerging concept in occupational health psychology. Work & Stress, 22(3), 187-200.
Bambang Wicaksono. (2009). ”Capaian Kinerja Pelayanan Pendidikan di Kota Yogyakarta Melalui Pengukuran Indeks Kepuasan Layanan 2009”. Kajian Kerjasama Antara Bagian Bagian Organisasi Pemerintah Kota Yogyakarta Dengan Lembaga Penelitian & Pengembangan Masyarakat (LPPM) UGM 2009.
Bimbingan, P., Dan, K., Sekolah, L., Motivasi, M., Terhadap, K., & Kerja, K. (2014). Economic Education Analysis Journal, 3(1), 114–123.
BURGAZ Berrin, (2008), Employability Competences of Vocational Secondary School Students, Eurasian Journal of Educational Research, 31, pp, 17-34/2008.
Brown, Ashley, Lisa T. Fall, (2005), Using the port of entry report as a benchmark : Survey results of on the Job Training Among Public Relations internship site managers, Public Relations Review 31(2005) 301-304.
Calvo, R and R. D Amato, (2015), A Collaboratif Method Of Enhancing Intershops Evaluation Through Stakeholders alignment, Procedia Engineering 132 (2015) 167-174.
Calhoon, C.C dan Finch A.V, (1982), Vocational Education Concept and Operations, Belmont California. Wads Worth publishing Company
Chyssolouris, G, et.al, (2016), The Teaching Factory,: A Manufacturing Education Paradigm, LMS, Dept. Of Mechanical Engineering & Aeronautics University of Patras Greece.
Cameron Craig at al, (2013), Making Economic Real The Economic Internship, International Review of Economics Education 13 (2013), 10-25.
Dahil, L., Karabulut, A. & Mutlu, I., 2015, Reasons and Results of Nonapplicability of Education Technology in Vocational and Technical Schools in Turkey. Procedia - Social and Behavioral Sciences, 176, pp.811–818.
Danim, Sudarwan. (2007). Visi Baru Manajemen Sekolah. Jakarta: Bumi Aksara
Durey, Alain , (1997), Transforming Engineering Conços for Technical and Vocational Teacher Educational in France, international Journal of Technology and Design Education, 7, 181-201, 1997.
Edmund G, Brown Jr. (2012). Improving Skills Transference. Employment Development Departement Journal. Hlm. 1-33.
Fajar, Z. et al., 2014. Analisis Kualitas Layanan Website Btkp-Diy Menggunakan Metode Webqual 4.0. *Jurnal Jarkom Volume 1 Nomor 2, 1*(2), pp.174–184.

Hamzah B. Uno. (2010). Teknologi Komunikasi & Informasi. Jakarta: Bumi Aksara.

Hassoubah, Z. I., (2004), *Developing Creative and Critical Thinking Skill*. Bandung: Nuansa.

Kadek Sukiyasa, Sukoco, (2013), Pengaruh Media Animasi Terhadap Hasil Belajar dan Motivasi Belajar Siswa Materi Sistem Kelistrikan Otomotif, Jurnal Pendidikan Vokasi, Vol.3, Nomor 1, Februari 2013

Kartini, B.A. & Martono, S., 2016. *Economic Education Analysis Journal*. *Economic Education Analysis Journal*, 5(1), pp.346–362.

Malayu S.P. Hasibuan. (2006). Manajemen Sumber Daya Manusia. Jakarta: PT Bumi Aksara.

Nana Syaodih Sukmadinata. (2009). Landasan Psikologi Proses Pendidikan. Bandung: PT. Remaja Rosdikarya.

Robinson & Aprilia, Nila 2005. Pengaruh Komitmen Organisasi. Kepuasan Kerja, dan Keperilakuan Etis terhadap Keinginan Berpindah pada Profesional Bidang Teknologi Informasi. Jurnal Bisnis & Manajemen. Vol.5, No.1 Hal. 23-24.

Romli, Muhammad, 2002. Pentingnya Intellectual Capital di Era Persaingan Bebas. Media Akuntansi, edisi April-Mei, 62-65.

Shin Yun Jeong and Kelly Kevin R. (2013). *Cross Cultural Comparison of The Effects of Optimism, Intrinsic Motivation, and Family Relations on Vocational Identity, The Career Development Quarterly*, Jan 2013, 61, 2, ProQuest, pg 141.

Slameto. (2010). Belajar dan Faktor-faktor yang Mempengaruhi. Jakarta: PT. Rineka Cipta.

Smith, Erica, (2010), *A review of twenty years of Competency-Based Training In The Austalian Vocational Education And Training System*, *International Journal of Training and Development*, 14.1, ISSN 1360-3736.

Susanto Heri dan Sudiyatno, (2014), Data Mining untuk Memprediksi Prestasi Siswa Berdasarkan Sosial Ekonomi, Motivasi, Kedisiplinan dan Prestasi Masa Lalu, Jurnal Pendidikan Vokasi, Vol.4, Nomor 2, Jan 2014.

Tommy Suprapto, M.S. (2009). Pengantar Teori dan Manajemen Komunikasi. Yogyakarta: Medpress.

Travers R.W.W, (1982), *Essential of Learning The New Cognitive Learning For Student of Education*. Publishing, Co.Inc, New York

Ubaedy. A.N. (2008). Berkarir di Era Global. Jakarta: PT Gramedia.

Uno,B Hamzah (2012). Teori Motivasi dan Pengukurannya.Jakarta: Bumi Winkelmann Rainer, (1996), *Employment Prospects And Skill Acquisition of Apprenticeship-Trained Workers in Germany*, *Industrial and Labor Relations Review*, Vol 49, (July 1996), Cornell University.

Wigley Terry, (2010), *Rethinking Educatio in an Era Globalisation*, University of Edinburgh, Scotia UK.

Yustina Aprilia dab Sukardi Tomas, (2014), Pengaruh Bimbingan Kejuruan, Motivasi Berprestasi dan Kemandirian Siswa Terhadap Kesiapan Kerja Siswa Kelas XII TKJ, Jurnal Pendidikan Vokasi Vol 4, nomor 2 Jan 2014.

Zuniarti dan Siswanto Budi Tri, (2013), Pengaruh Motivasi Belajar, Kinerja Intensitas Pembimbingan Prakerin Terhadap Kesiapan Kerja Siswa SMK Pariwisata DIY, Jurnal Pendidikan Vokasi, Vol 3, Nomor 3, November 2013