

# Artikel Sherly 2023

*by Sherly Sherly*

---

**Submission date:** 29-Nov-2023 01:40PM (UTC+0700)

**Submission ID:** 2241738869

**File name:** B-jpp-review-assignment-53843-Article\_Text-142979\_Rev01.docx (71.47K)

**Word count:** 4763

**Character count:** 28742

## Discrepancy Evaluation Model (DEM) on Certification Competency Test Implementation of Vocational High School

Sherly Sherly<sup>1\*</sup>, Kisno Kisno<sup>2</sup>, Yuniarto Mudjisusaty<sup>3</sup>, Saut Purba<sup>4</sup>, Edy Dharma<sup>5</sup>, Humiras Betty Marlina Sihombing<sup>6</sup>

<sup>1</sup>Department, of Management, Sekolah Tinggi Ilmu Ekonomi Sultan Agung, Pematangsiantar, Indonesia

<sup>2</sup>Department, of Management, Sekolah Tinggi Manajemen dan Manajemen Indonesia (STAMI), Pematangsiantar, Indonesia

<sup>3,4</sup>Department of Education Management, Universitas Negeri Medan, Medan, Indonesia

<sup>6</sup>Department, of English, Education Universitas Darma Agung, Medan, Indonesia

\*Corresponding author; [author1@email.com](mailto:author1@email.com)

### Abstrak

Uji Sertifikasi Kompetensi merupakan salah satu syarat utama bagi kelulusan siswa SMK dan kesenjangan teori dan fenomena dalam evaluasi Uji Sertifikasi Kompetensi masih jarang dilakukan. Penelitian ini bertujuan untuk mengevaluasi pelaksanaan uji sertifikasi kompetensi SMK di Kabupaten Deli Serdang. Metode evaluasi menyeluruh dengan Discrepancy Evaluation Model (DEM) dilakukan melalui observasi, dan studi dokumen. Kuesioner kemudian dikembangkan untuk mengumpulkan data dari 13 SMK sebagai populasi dan sampel di Kabupaten Deli Serdang. Data yang dianalisis secara deskriptif masuk dalam beberapa kategori sebagai temuan penelitian ini seperti desain, instalasi, proses, produk berbagi pencapaian sangat baik dengan skor 45,53 (100%), 57,4 (88,51%), 39,64 (87,52%), dan 43,87 (89,22%) masing-masing. Skor keseluruhan termasuk kategori sangat baik dengan rata-rata skor yang diperoleh 172,44 (91,32%). Ujian sertifikasi kompetensi di Kabupaten Deli Serdang membutuhkan peningkatan yang lebih maksimal selain pencapaiannya yang telah ada saat ini. Oleh karena itu, diperlukan kerjasama yang baik dari semua pihak, seperti penyelenggara ujian nasional tingkat provinsi, sekolah, lembaga mitra, pengawas, orang tua/masyarakat dan siswa sehingga dapat mengatasi kesenjangan sehingga hasil uji sertifikasi kompetensi semakin baik.

**Kata kunci:** model evaluasi discrepansi, uji sertifikasi kompetensi, sekolah menengah kejuruan

### Abstract

Certification Competency test is one of the requirements of VHS graduates and the gap between theory and phenomenon in this test evaluation is rarely carried out. The objective of this study is to evaluate the implementation of Certification Competency Test of VHS in Deli Serdang Regency. A thorough evaluative method with Discrepancy Evaluation Model (DEM) was implemented through observation, and document study. Then, a questionnaire was developed to collect the data from 13 VHS as the population and sample in Deli Serdang Regency. The data analysed descriptively fell into some categories as the finding of this research such as design, installation, process, product shared very good achievement with score 31.53 (100%), 57.4 (88.51%), 39.64 (87.52%), and 43.87 (89.22%) respectively. The overall score denoted very good category with average gained score 172.44 (91.32%). In conclusion, the certification competency exam in Deli Serdang Regency requires more maximum improvement despite the recent achievement. Good cooperation is needed from all parties, such as the provincial level national exam implementers, schools, partner institutions, supervisors, parents/community and students so as to fulfill the gap so that the certification competency test results will be even better.

**Keywords:** discrepancy evaluation model, certification competency test, vocational high school

#### History:

Received : 25 Februari 2021  
 Revised : 10 Maret 2021  
 Accepted : 23 April 2021  
 Published : 25 Juli 2021

**Publisher** 34 Iiksha Press

**Licensed:** This work is licensed under a Creative Commons Attribution 4.0 License



Commented [R1]: The urgency of the research needs to be added at the beginning of the abstract.

## 1. INTRODUCTION

The work market in the twenty-first century has become extremely competitive and demanding, with relevant and high-quality skills being the primary requirement for graduates seeking profitable employment (NGU & Teneng, 2020; Bridgstock, Grant-Iramu, & McAlpine, 2019). Graduates who work in their fields after graduation and are satisfied with their jobs contribute more to the country's economic progress (Briede & Drelinga, 2020; Lavelle, 2021; Indrawati & Kuncoro, 2021; Minaya & Scott-Clayton, 2022). The demand for qualified graduates is being driven by disruptive technology, rising global markets, and uncertain labour requirements (Ferns, Dawson, & Howitt, 2019; Green & Henseke, 2021; Mok, Xiong, & Ye, 2021; Broo, Kaynak, & Sait, 2022). This demand is usually fulfilled by Vocational High School (VHS) which are educational institutions that strive to prepare graduates who are ready to work by emphasizing their skills and knowledge based on their areas of specialization. The vocational school setting is unique in that it brings together people from various walks of life. From elementary to post-graduate, the nature of these social interactions varies by educational levels and educational systems (Daryanto, Sagala, & Badiran, 2015; Barrot, Llenares, & Del Rosario, 2021; Naidu, 2021). However, in certain nations, vocational schools are used to identify students of lower socioeconomic standing (Daryanto, 2014; Schels & Abraham, 2021; Bray, Banks, Devitt, & Ní Chorcóra, 2021). Despite the number lower-economy-status-of students attending this school, the Central Statistics Agency (BPS) reported that in August 2021, the majority of unemployed people in Indonesia were dominated to 11.13% or 9.77 million by the graduates from VHS (Statistik, 2021). In short, in spite of the needs of job to overcome this graduates' income issue, it is demanded that the improvement of VHS be increased.

The revitalization of VHS under President's Instruction No. 68/2022 is intended to improve the quality of Indonesian employees, who are still statistically developing below the level of the majority of basic education levels (Baitullah & Wagiran, 2019; Dahliah & Nur, 2021; Bakti & Hartono, 2022; Sutarto, Wardeningsih, & Putri, 2022). As a result, vocational education must remain a part of current workforce development. The creation of a marketable workforce should be achieved through vocational education that is based on the needs of global industry and increases graduate competence (Rahmah & Muslim, 2019; Ismail, Chik, & Hemdi, 2021). Competency certification is a deliberate step toward improving the quality of VHS graduates which is listed in the Regulation of Ministry of Education and Culture No. 34/2018 about National Education Standard of High School/Vocational School (Rosyid, 2020). Nondegree credentials such as, certificates, licenses, or industry certifications other than an associate or bachelor's degree are worth more to workers who have them, according to labour market data (Bishop, 2019; Hendricks, Myran, Owings, Katsioloudis, & Kaplan, 2021).

In terms of competency, the researcher discovered an apparent theoretical gap in previous study. The idea on competency is a little out of date, and current investigations reflect this theoretical void. Some of the previous theory appears to be significant and deserving of mention. However, a competency and theoretical development inquiry is necessary (Björnavold & Tissot, 2000). The absence of external conditions in this theory has a significant impact on popular understanding (Straka, 2003b) and therefore a research of these concerns is necessary. Furthermore, in order to create a stronger theoretical foundation for projects, earlier theoretical models must incorporate current research in competency certification and associated domains. The prior theory focuses mostly on internal and actual circumstances. It excludes new paradigms arising from external circumstances.

The certification competency test is an award for competence related to qualifications of 2 (two) or 3 (three) levels at The Indonesian Qualification Framework (IQF), administered at the end of the study period by a Professional Certification Institute or accredited education unit working with business/industrial partners, and taking into account passport skills and/or portfolio (Kuntoro, Sudana, & Anis, 2019). Varied cohorts of young people have different 'bottom up' experiences and conditions, which must be taken into account in policy responses (McDonald, Grant-Smith, Moore, & Marston, 2020). According to a case study of the finest VHS a certain proficiency, these VHS are unlikely to be ready for the ASEAN Economic Community (AEC). Some literature reported that the link and match program is very helpful in establishing cooperation between VHS and business/industrial sector with various approaches such as competency based training (CBT), such as the MoU program for the business and industrial world, curriculum synchronization, industrial job training, and skill certification competency test so as to link and match will be effective and benefit both parties (Maulina & Yoenanto, 2022).

This research is focused on the implementation of the certification competency test for some expertise in VHS in Deli Serdang Regency, North Sumatera, Indonesia. The evaluation model used is the discrepancy evaluation model (DEM) or often called the gap model, which was developed by Malcom Provus in 1971 (Steinmetz, 1983; Mustafa, 2021). This discrepancy evaluation model emphasizes the view that a gap exists in program implementation, namely the difference between the standards set and the actual performance or appearance of the program. In this study, the researchers used the gap model since based on the initial observations, the researcher observed that several certification competency test procedures did not meet the applicable standards such as practical facilities and infrastructure, requirements for examiners, verification, assessment systems, assessment standards and others. Apart from this, the discrepancy model or this gap model is very suitable for use in the certification competency test implementation program so that the gaps encountered can be information for those interested in improving certification competency test implementation in the future. Very little research has been carried out on competency certification test to properly evaluation the problem. This study intends to provide a new inquiry on management evaluation practices addressing the gaps competency certification test. The study investigates four aspects i.e. design, installation, process, and output.

## 2. METHOD

Data collection techniques and methods was carried out through observation, questionnaires, and documentation study (Edmonds & Kennedy, 2017). Afterwards, data was analyzed using the quantitative and qualitative method in which quantitatively, data was analyzed by a variety of applications statistical techniques for tabulating quantitative data. Data collected through a questionnaire using a 1-5 Likert's scale. Data processing was carried out by determining the mean and mean and standard deviation (SD) of the instrument so that the results of the instrument the questionnaire can be interpreted the score with 5 categories, namely Very good, Good, Fair, Not Good, and Bad as is shown in Table 1.

**Table 1. Respondents' score category**

No.	Category	Resp. Score
1	Very good	$x \leq \mu + 1.5 \alpha$
2	Good	$x + \mu + 1.5 \alpha \geq x \geq \mu + 0.5 \alpha$
3	Fair	$x + 0.5 \mu > x \geq \mu - 0.5 \alpha$

No.	Category	Resp. Score
4	Not Good	$x - 0.5 \mu > x \geq \mu - 0.5 \alpha$
5	Bad	$x \leq \mu - 1.5 \alpha$

While the analysis of qualitative research was carried out via non-statistical analysis by finding out the proportions, percentages, and ratios. This type of analysis is often simple statistical analysis. It is further explained that to use the analysis needs to set a prior standard determined by the researcher based on the needs of a research (Cohen, Manion, & Morrison, 2018). The analysed data is adjusted to the stages of the discrepancy evaluation model and indicators, which is mentioned in Table 2.

**Table 2. Indicators of Discrepancy Evaluation Model (DEM)**

50	Aspect	Indicators
1	Design	input, process, output
2	Installation	program legality, program goals and objectives, program socialization, implementation procedures, verification, tools and facilities, assessors, and requirements for the business world and industry
3	Process	implementation of test, test's time allocation
4	Product	test score and certificate

This research on program evaluation aims to provide input and benefits to parties involved in the implementation of the certification competency test in VHS such as supervisors, principals, committee, teachers of productive subjects, and partner institutions or business and industry world participants. This research was carried out on 13 (thirteen) VHS in Deli Serdang Regency from March to May 2022.

### 3. RESULT AND DISCUSSION

The data collected in the study were analysed and tabulated at the first step. The next step is to calculate the value of each item of each component in order to obtain the value of the components evaluation to be measured as is illustrated in Table 3 below.

**Table 3. Result Analysis of DEM Aspects**

No	VHS	Gained Average									
		Design		Installation		Process		Product		Overall	
		Score	%	Score	%	Score	%	Score	%	Score	%
1	SMKN 1 Tanjung Morawa	31.5 2	100	58.8 9	90.1	39.4 3	85.7	44.8 90	90	174.5 2	91.4 8
2	SMKS Nur Azizi	31.5 5	100	60 6	92.0	42.3 3	92.3	47 95	95	180.8 8	94.8 6
3	SMKS Dwitunggal	31.5 4	100	59 5	90.5	43.2 5	94.4	45.5 4	91.5	179.2 9	94.1 3

No	VHS	Gained Average									
		Design		Installation		Process		Product		Overall	
		Score	%	Score	%	Score	%	Score	%	Score	%
4	SMKS Karya Jaya	31.5	100	55.25	84.64	37.57	81.98	41.75	84	166.07	87.66
5	SMKS Methodist	31.51	100	58	89.39	38.6	84.93	44	89.2	172.11	90.88
6	SMKS Nurul Amaliyah	31.52	100	59.2	91.26	41.53	91.59	46.2	94.2	178.45	94.26
7	SMKS Harapan Bangsa	31.55	100	58.2	89.7	42.45	93.67	44.7	90.74	176.9	93.53
8	SMKS Wira Jaya	31.57	100	54.4	83.8	36.7	81.1	40.9	83.2	163.74	87.06
9	SMKS Gema Bukit Barisan	31.56	100	57.5	88.9	38.1	84.4	43.5	88.7	170.81	90.54
10	SMKS Sumatera	31.53	100	58.7	90.8	41.0	91.1	45.7	93.7	177.1	93.9
11	SMKS Skylandsea	31.52	100	57.7	89.2	42	93.2	44.2	90.2	175.52	93.19
12	SMKS Einstein School	31.51	100	54	83.3	36.3	80.7	40.5	82.7	162.33	86.72
13	SMKS Tamora	31.51	100	55.3	86.6	35.9	82.2	41.3	86.5	164.01	88.86
	VHS in Deli Serdang Regency	31.53	100	57.4	88.5	39.6	87.5	43.8	89.2	172.44	91.32

### Design Aspect

The program design stage is the initial stage of the discrepancy evaluation model. The design stage of this program is the design of activities or work programs, a program will be implemented if there is already a design and there are standards for implementation. The indicators that are evaluated at the design stage are the presence or absence of input, process and output elements. If this component is available, the new program is worth running, meaning that the evaluation program design provides an overview of whether the running meets the determined standards. Based on the evaluation design criteria above, the certification competency test has complied with the criteria because it has elements of input, process and output.

### Installation Aspect

Based on the evaluation by observation, the results of the program installation component consist of 8 aspects, namely program legality, program goals and objectives,

program socialization, implementation procedures, verification, tools and facilities, assessors, and partnership requirements for the business world and industry was in the good category with a percentage (88.51%). Despite the fulfilment of 8 aspects of the evaluation of the program installation according to the standard or meeting the criteria, there were several criteria from the 8 aspects that were not appropriate. The unmet criteria include minimum socialization to parents, this activity coincided with other activities related to final year examination. The next is about verification. The verification should be carried out by a verification team that involved partners from business and industry. In fact, verification did not participate the partners due to several things such as cost, time and relevant competence. However, the certification competency test was executed due to several considerations and regional policies.

#### Process Aspect

Evaluation on the components or stages of the program process consists of 2 aspects, namely the UKK implementation process and the time allocation. Based on the results of the evaluation by observation, the overall category is good with a percentage (87.52%). In spite of this category, there were still gaps or criteria that have not been fulfilled. Some of the criteria that have not been implemented properly include the readiness of examinees in carrying out the exam like tools, facilities, and materials based on the functions and procedures as well as using work safety equipment while other gaps are found in examiners such as in the examiners did not meet the criteria. However, the process run as it was so that the certification competency test could produce the expected product and continued to the next stage.

#### Product Aspect

The certification competency test program product consists of 2 aspects, namely score of test and certificates. Based on the observations, the overall product of the certification competency test program is in the good category with a percentage (89.22%). However, the implementation of certification competency test program, needs improvement in the future. The criteria that resulted a gap was to the product, but most of the products produced by participants could not function properly with the competence of expertise required by the industry sector. The test still follows a lot of remedial to achieve the minimum score criteria, which is 7.0. While the certificate met the criteria, namely for VHS carrying out certification competency test, the certificate is issued by the Professional Certification Institute. Based on the results of document evaluation, the certificates have fulfilled the stipulated criteria.

#### Discussion

Certainly, it is not easy in the procurement and will require substantial costs because the assessment centres are good workplaces or workplace simulations under industry environmental standards for conducting competency tests by competency certification agencies (Budiyanto & Suyanto, 2020). Based on the finding, certification competency test implementation was not adequate enough for employability. Industries and schools provide students' vocational training under supervision of expert in their course area in order to enrich the level of trainees' acquisition of employability skills.

Participants in a research reported that the evaluation indicated the new employees lack employability skills, a higher order of thinking, metacognition, mature nature of competency,

Commented [R2]: This discussion does not include a comparison of these findings with previous findings. Please explain how the results of this study compare with previous findings. Then, the writer has not explained the novelty of his findings. Please add to the last paragraph.



social mobility, motivation, and positive self-efficacy (Gauthier T. , 2020; Gekara & Snell, 2018; Gauthier T. , 2020; Santosa & Dwi, 2019). Participating in a youth apprenticeship program while concentrating in a secondary CTE program of study may lead to a higher rate of continuing into one's area of concentration after high school than students earning employability skills certificate (Mindham & Schultz, 2019). Moreover, work competency developed through work experiences, trainings, and development can help students succeed in the workplace, and having a career prospect increases the possibility for them to secure permanent positions on their future employment (Icban, 2019). This research therefore contradicts the evaluation model that does not include the employability skills which are discipline and integrity in the world of work and business.

The results of the previous findings from both employer and employee data revealed that the previous work experience, computer skills, professional certifications and high grade point average have significant impact on hiring and recruitment in the skilfull jobs (Murrar, Batra, Paz, Asfour, & Balmakhtar, 2021; de Lucas, Pieper, & Arco-Tirado, 2021). Learner capabilities are traditionally what people call 'soft skills' or 'transferable skills'. They are the skills or capabilities that people use regardless of the competencies that they use in their job (Paterson, 2019). Previous research indicated that the evaluation model focused on the key aspects of competency, industries and schools which could improve the students learning process and producing prospective graduates with abilities to allow them to interact with job duties in the organization of workplace (Kamaliah, Roslan, Bakar, & Ghiami, 2018; Boylan, Coldwell, Maxwell, & Jordan, 2018). However, this phenomenon is not supported with the existence of soft skills requirements (Green-Weir, Anderson, & Carpenter, 2021). The organization of workplace does not limit to hard skills performance, but also soft skills. Soft skills are the invisible abilities necessary for success, for example ability to work together, integrity and others. Soft skills are used to describe abilities that are invisible from a person to thrive in work.

The outputs of the VHS are the input of the industries. Therefore, VHS should have closed linkages with the world of work to facilitate support of industry for the enhancement of practical training through placement of trainees on work experience attachment and exchange programs for the instructional staff (Singh & Tolessa, 2019). These non-academic abilities include interpersonal skills, computer and information technology skills, entrepreneurial skills, communication skills, thinking skills and management skills (Sangadji & Sangadji, 2019). Nowadays VHS provide certification to certify competency of its graduate in order to enhance their value to deliver work correspond to their field. In spite of this, the effectiveness of the competency certification to decrease unemployment needs to be confirmed (Indrarini, Anwar, & Canggih, 2019). However, these researches had not revealed the partnership of parents and other involved parties to carry out the test and therefore, this research fulfill the gap between the theories and the phenomenon of Discrepancy Evaluation Model through the revelation of the necessity of the other factors such as soft skills and parents' involvement.

#### 4. CONCLUSION

The Discrepancy Evaluation Model (DEM) in this study revealed the importance of participation of many parties such as the industry and the parents of the students in the certification competency test of VHS in Deli Serdang Regency, North Sumatera Province. The final result of this research suggested a management evaluation procedures that addresses competency certification test gaps in which a good collaboration from the involved parties,

Commented [R3]: Try not to repeat the delivery of previous results. Emphasize the meaning of the findings.



such as the provincial level national exam implementers, schools, partner institutions, supervisors, parents/community and students/test participants in order to fulfil the gap so that the certification competency test results will be even better. This is very beneficial for students who is expected to join the workforce in the industrial world. The Discrepancy Evaluation Model (DEM) invented by Provus used in this study had managed to revealing the issues found in the design, installation, process and product aspects. The upcoming study is suggested to include the involvement of soft skills aspects and partnership from industry and parents.

## 5. REFERENCES

- Baitullah, M. J., & Wagiran, W. (2019). Cooperation between vocational high schools and world of work: A case study at SMK Taman Karya Madya Tamansiswa. *Jurnal Pendidikan Vokasi*, 9(3), 280-293. doi:10.21831/jpv.v9i3.27719
- 15 Bakti, R., & Hartono, S. (2022). The Influence of Transformational Leadership and work Discipline on the Work Performance of Education Service Employees. *Multicultural Education*, 8(1), 109-125.
- Barrot, J. S., Llenares, I. I., & Del Rosario, L. S. (2021). Students' online learning challenges during the pandemic and how they cope with them: The case of the Philippines. *Education and Information Technologies*, 26(6), 7321-7338. doi:10.1007/s10639-021-10589-x
- 18 Bishop, M. M. (2019). *Addressing the Employment Challenge: The Use of Postsecondary Noncredit Training in Skills Development*. Washington, DC: American Enterprise Institute.
- 31 Björnvall, J., & Tissot, P. G. (2000). *Making learning visible: identification, assessment and recognition of non-formal learning in Europe*. Luxembourg: Office for Official Publication of the European Communities.
- Boylan, M., Coldwell, M., Maxwell, B., & Jordan, J. (2018). Rethinking models of professional learning as tools: a conceptual analysis to inform research and practice. *Professional development in education*, 44(1), 120-139. doi:10.1080/19415257.2017.1306789
- 4 Bray, A., Banks, J., Devitt, A., & Ní Chorca, E. (2021). Connection before content: using multiple perspectives to examine student engagement during Covid-19 school closures in Ireland. *Irish Educational Studies*, 40(2), 431-441. doi:10.1080/03323315.2021.1917444
- Bridgstock, R., Grant-Iramu, M., & McAlpine, A. (2019). Integrating career development 13 into the curriculum: Collaboration with the careers service for employability. 48 *Journal of Teaching and Learning for Graduate Employability*, 10(1), 56-72. doi:https://search.informit.org/doi/10.3316/informit.580534557337065
- 39 Briede, L., & Dreiling, E. (2020). Personal Sustainability 49 and Sustainable Employability: Perspective of Vocational Education Students. *Journal of Teacher Education for Sustainability*, 22(2), 40-48. doi:10.2478/jtes-2020-0015
- 14 Broo, D. G., Kaynak, O., & Sait, S. M. (2022). Rethinking engineering education at the age of industry 5.0. *Journal of Industrial Information Integration*, 25, 100311. doi:10.1016/j.jii.2021.100311

Commented [R4]: If possible, add articles from reputable journals.

- Budiyanto, & Suyanto, W. (2020). THE EVALUATION OF COMPETENCY CERTIFICATION PROGRAM THROUGH THE LSP P-1 AT VOCATIONAL HIGH SCHOOL. *Jurnal Pendidikan Vokasi*, 10(1), 44-55. doi:doi.org/10.21831/jpv.v10i1.30155
- 25 Cohen, L., Manion, L., & Morrison, K. (2018). *Research Methods in Education (8th edition)*. New York: Routledge.
- 32 Dahliah, D., & Nur, A. N. (2021). The influence of unemployment, human development index and gross domestic product on poverty level. *Golden Ratio of Social Science and Education*, 1(2), 95-108. doi:10.52970/grsse.v1i2.84
- 11 de Lucas, B. C., Pieper, M., & Arco-Tirado, J. L. (2021). Volunteering, Competence Certification and Employability: VOL+ Program Evaluation. *Methodos-Revista De Ciencias Sociales*, 9(2), 232-243. doi:10.17502/mrcs.v9i2.489
- 22 Edmonds, W. A., & Kennedy, T. D. (2017). *An applied guide to research designs : quantitative, qualitative, and mixed methods (2nd ed.)*. California: SAGE.
- 16 Ferns, S., Dawson, V., & Howitt, C. (2019). A Collaborative Framework for Enhancing Graduate Employability. *International Journal of Work-Integrated Learning*, 20(2), 99-111.
- 12 Gauthier, T. (2020). Exploring Employer Perspectives of Community College Career and Technical Programs. *Career and Technical Education Research*, 45(1), 63-76. doi:10.5328/cter45.1.63
- 13 Gauthier, T. (2020). The value of microcredentials: The employer's perspective. *The Journal of Competency-Based Education*, 5(2), 1-6. doi:10.1002/cbe2.1209
- Gekara, V., & Snell, D. (2018). Designing and delivering skills transferability and employment mobility: the challenges of a market-driven vocational education and training system. *Journal of Vocational Education & Training*, 70(1), 107-129. doi:10.1080/13636820.2017.1392996
- 28 Green, F., & Henseke, G. (2021). Europe's evolving graduate labour markets: supply, demand, underemployment and pay. *Journal for Labour Market Research*, 55(1), 1-13. doi:10.1186/s12651-021-00288-y
- 17 Green-Weir, R. R., Anderson, D., & Carpenter, R. (2021). Impact of Instructional Practices on Soft-Skill Competencies. *Research in Higher Education*, 40(1), 1-20.
- Hendricks, A., Myran, S., Owings, W. A., Katsioloudis, P., & Kaplan, L. S. (2021). Rethinking the US Post-Secondary Education Model: The Relationship between Earning Career and Technical Industry Credentials and the Virginia Economy. *Journal of Education Finance*, 47(2), 111-129.
- 19 Icban, A. (2019). Fit or Misfit: Employability of the Technical Vocational Livelihood Students through their Work Immersion. *The ASTR Research Journal*, 3(1), 1-31.
- Indrarini, R., Anwar, M. K., & Canggih, C. (2019). Does Competency Certification Really Matter to Decrease Unemployment? *The 1st International Conference on Education, Sciences and Technology*, (pp. 179-185). Padang.
- 5 Indrawati, S. M., & Kuncoro, A. (2021). Improving competitiveness through vocational and higher education: Indonesia's vision for human capital development in 2019–2024.

- 5  
Bulletin of Indonesian Economic Studies, 57(1), 29-59.  
doi:10.1080/00074918.2021.1909692
- 9  
Ismail, J. B., Chik, C. T., & Hemdi, M. A. (2021). TVET graduate employability: mismatching traits between supply and demand. *International Journal of Academic Research in Business and Social Sciences*, 11(13), 223-243.
- 1  
Kamaliah, S., Roslan, S., Bakar, A., & Ghiami, Z. (2018). The effect of supervised work experience on the acquisition of employability skills among Malaysian students. *Higher Education, Skills and Work-Based Learning*, 8(4), 354-364. doi:10.1108/HESWBL-05-2016-0028
- Kuntoro, T., Sudana, I. M., & Anis, S. (2019). The Implementation of Competency Certification Test for Vocational Students of Light Vehicle Engineering Program by LSP-P3 in Banyumas. *Journal of Vocational Career Education*, 4(1), 74 - 82. doi:10.15294/jvce.v5i2.26946
- Lavelle, B. A. (2021). Entrepreneurship education's impact on entrepreneurial intention using the theory of planned behavior: Evidence from Chinese vocational college students. *Entrepreneurship Education and Pedagogy*, 4(1), 30-51. doi:10.1177/2515127419860307
- Maulina, M., & Yoenanto, H. (2022). Optimalisasi Link and Match sebagai Upaya Relevansi SMK dengan Dunia Usaha dan Dunia Industri (DUDI). *Jurnal Akuntabilitas Manajemen Pendidikan*, 10(1), 21-31. doi:https://doi.org/10.21831/jamp.v10i1.48008
- 10  
McDonald, P., Grant-Smith, D., Moore, K., & Marston, G. (2020). Navigating employability from the bottom up. *Journal of Youth Studies*, 23(4), 447-464. doi:10.1080/13676261.2019.1620925
- 8  
Minaya, V., & Scott-Clayton, J. (2022). Labor market trajectories for community college graduates: How returns to certificates and associate's degrees evolve over time. *Education Finance and Policy*, 17(1), 53-80. doi:10.1162/edfp\_a\_00325
- 6  
Mindham, J., & Schultz, D. (2019). The Impact of Youth Apprenticeship and Employability Skills Programs on Career & Technical Education Concentrator-Completer Post Graduation Outcomes. *Career and Technical Education Research*, 44(3), 3-14. doi:10.5328/cter44.3.3
- 2  
Mok, K. H., Xiong, W., & Ye, H. (2021). COVID-19 crisis and challenges for graduate employment in Taiwan, Mainland China and East Asia: a critical review of skills preparing students for uncertain futures. *Journal of Education and Work*, 34(3), 247-261. doi:10.1080/13639080.2021.1922620
- 24  
Murrar, A., Batra, M., Paz, V., Asfour, B., & Balmakhtar, M. (2021). "Employability of job applicants in skilful jobs: commonality in employer and employee perspectives". *International Journal of Manpower*. doi:10.1108/IJM-10-2020-0454
- Mustafa, P. S. (2021). PALAPA : Jurnal Studi Keislaman 198 dan Ilmu Pendidikan, 9(1), 182-198. doi:10.36088/palapa.v9i1.1067
- 21  
Naidu, S. (2021). Building resilience in education systems post-COVID-19. *Distance education*, 42(1), 1-4. doi:10.1080/01587919.2021.1885092
- 7  
NGU, S. W., & Teneng, P. P. (2020). Unlocking graduates' employability: The Case of technical high school graduates of the Diamaré Division, Far North Region, Cameroon.

- American Journal of Educational Research*, 8(9), 705-717. doi:10.12691/education-8-9-13
- Paterson, A. (2019). HOW DO WE CREATE NEW ZEALAND'S MOST EMPLOYABLE GRADUATES? *Scope Contemporary Research Topics (Learning and Teaching)* , 19, 19-21.
- Rahmah, L., & Muslim, S. (2019). Implementation of Competence Certificate Test for the Improvement of Vocational School of Work Graduation Readiness. *1st Vocational Education International Conference (VEIC 2019)*, (pp. 231-237). Semarang.
- Rosyid, A. (2020). Evaluation of Competency Test and Work Competency Certification Implementations at Professional Certification Institute - First Party (LSP P1). *Journal of Vocational and Career Education*, 5(2), 81-8. doi:10.15294/jvce.v5i2.26946
- Sangadji, K., & Sangadji, L. (2019). DEVELOPMENT OF EMPLOYABILITY SKILLS IN THE ERA OF GLOBALIZATION IN THE UNIVERSITY. *International Journal of Education, Information Technology, and Others*, 2(2), 50-54. doi:10.5281/zenodo.3596088
- Santosa, B., & Dwi, S. (2019). Work-based assessment at vocational high school in Indonesia. *International Journal of Research Studies in Education*, 8(1), 89-97. doi:10.5861/ijrse.2018.3011
- Schels, B., & Abraham, M. (2021). Adaptation to the market? Status differences between target occupations in application process and realized training occupation of German adolescents. *Journal of Vocational Education & Training*, 1-22. doi:10.1080/13636820.2021.1955403
- Singh, B., & Tolessa, M. B. (2019). TVET-Industry Linkage and Collaboration in Ethiopia: A Necessity for Improving Employability Skill. *International Research Journal of Engineering and Technology (IRJET)*, 6(11), 3526-3532.
- Statistik, B. P. (2021). *Survei Angkatan Kerja Nasional (Sakernas)*. Jakarta:: Badan Pusat Statistik.
- Steinmetz, A. (1983). The Discrepancy Evaluation Model. In *Evaluation Models. Evaluation in Education and Human Services* (pp. 79-99). Dordrecht: Springer. doi:10.1007/978-94-009-6669-7\_5
- Straka, G. A. (2003b). Rituale zur Zertifizierung formell, nonund informell erworbener Kompetenzen. *Wirtschaft und Erziehung*, 55(7), 253-259.
- Sutarto, A. P., Wardaningsih, S., & Putri, W. H. (2022). Factors and challenges influencing work-related outcomes of the enforced work from home during the COVID-19 pandemic: Preliminary evidence from Indonesia. *Global Business and Organizational Excellence*, 41(5), 14-28. doi:10.1002/joe.22157

## ORIGINALITY REPORT

19%

SIMILARITY INDEX

12%

INTERNET SOURCES

8%

PUBLICATIONS

7%

STUDENT PAPERS

## PRIMARY SOURCES

1	Sharifah Kamaliah, Samsilah Roslan, Ab Rahim Bakar, Zeinab Ghiami. "The effect of supervised work experience on the acquisition of employability skills among Malaysian students", Higher Education, Skills and Work-Based Learning, 2018 Publication	2%
2	arxiv.org Internet Source	1%
3	go.gale.com Internet Source	1%
4	irelandseducationyearbook.ie Internet Source	1%
5	Submitted to National University of Singapore Student Paper	1%
6	Submitted to Northwest Nazarene University Student Paper	1%
7	scholarworks.iu.edu Internet Source	1%

8	<a href="http://www.cesifo.org">www.cesifo.org</a> Internet Source	1 %
9	Onyekachi Ohagwu, Peter Karubi Nwanesi, Poline Bala. "Skill acquisition (TVET) and employment in Sarawak", International Social Science Journal, 2022 Publication	1 %
10	Submitted to THEI Student Paper	1 %
11	Beatriz Cedena de Lucas, Maida Pieper, José Luis Arco-Tirado. "Voluntariado, Certificación de Competencias y Empleabilidad: Evaluación del Programa VOL+", methaodos revista de ciencias sociales, 2021 Publication	1 %
12	Jennifer L. Doherty-Restrepo, Katherine Perez, Michael Creeden, Bridgette Cram, McLudmer Charite. "Closing the Gap Between Students' Career Readiness and Employers' Expectations", International Journal of Innovative Teaching and Learning in Higher Education, 2023 Publication	1 %
13	<a href="http://www.diva-portal.se">www.diva-portal.se</a> Internet Source	1 %
14	Submitted to Canadian University of Dubai Student Paper	<1 %

15	Submitted to Napier University Student Paper	<1 %
16	heqco.ca Internet Source	<1 %
17	Submitted to Intercollege Student Paper	<1 %
18	Jacqueline M. Lambert. "chapter 7 Case Study", IGI Global, 2020 Publication	<1 %
19	Submitted to Emilio Aguinaldo College-Cavite Student Paper	<1 %
20	journal.umpo.ac.id Internet Source	<1 %
21	Philippa Waterhouse, Rajvinder Samra, Mathijs Lucassen. "Distance education students' satisfaction: Do work and family roles matter?", Distance Education, 2022 Publication	<1 %
22	ruor.uottawa.ca Internet Source	<1 %
23	Submitted to California Virtual Campus Region IV Student Paper	<1 %
24	Submitted to Republic of the Maldives Student Paper	<1 %



25	<a href="https://dspace.cuni.cz">dspace.cuni.cz</a> Internet Source	<1 %
26	<a href="https://scholar.google.co.id">scholar.google.co.id</a> Internet Source	<1 %
27	Submitted to Sunway Education Group Student Paper	<1 %
28	Submitted to University School of Milwaukee Student Paper	<1 %
29	Submitted to Western Governors University Student Paper	<1 %
30	<a href="https://ejournal.unp.ac.id">ejournal.unp.ac.id</a> Internet Source	<1 %
31	Aune Valk. "Recognition of prior and experiential learning in European universities", Assessment in Education: Principles, Policy & Practice, 2009 Publication	<1 %
32	Mbongeni Zwelakhe Ngubane, Siyabonga Mndebele, Irshaad Kaseeram. "Economic growth, unemployment and poverty: Linear and non-linear evidence from South Africa", Heliyon, 2023 Publication	<1 %
33	Zaenab Hanim, Nikolaus Anggal, Yustinus Sanda. "Strategi pembiayaan pendidikan pada perguruan tinggi keagamaan Katolik swasta	<1 %

untuk pemenuhan capaian kinerja", JPPI  
(Jurnal Penelitian Pendidikan Indonesia), 2023  
Publication

34	<a href="https://digitalcommons.unomaha.edu">digitalcommons.unomaha.edu</a> Internet Source	<1 %
35	Submitted to University of Gloucestershire Student Paper	<1 %
36	<a href="https://languages-cultures.uq.edu.au">languages-cultures.uq.edu.au</a> Internet Source	<1 %
37	<a href="http://www.goldenratio.id">www.goldenratio.id</a> Internet Source	<1 %
38	<a href="http://www.sciencepubco.com">www.sciencepubco.com</a> Internet Source	<1 %
39	Liene Briede, Elga Drelinga. "Personal Sustainability and Sustainable Employability: Perspective of Vocational Education Students", Journal of Teacher Education for Sustainability, 2020 Publication	<1 %
40	<a href="http://ejurnal.bangunharapanbangsa.com">ejurnal.bangunharapanbangsa.com</a> Internet Source	<1 %
41	<a href="http://jurnal.permapendis-sumut.org">jurnal.permapendis-sumut.org</a> Internet Source	<1 %
42	<a href="https://strathprints.strath.ac.uk">strathprints.strath.ac.uk</a> Internet Source	<1 %

43	<a href="https://repository.ipb.ac.id">repository.ipb.ac.id</a> Internet Source	<1 %
44	<a href="https://epdf.pub">epdf.pub</a> Internet Source	<1 %
45	<a href="https://eprints.uns.ac.id">eprints.uns.ac.id</a> Internet Source	<1 %
46	<a href="https://jist.publikasiindonesia.id">jist.publikasiindonesia.id</a> Internet Source	<1 %
47	<a href="https://philsci-archive.pitt.edu">philsci-archive.pitt.edu</a> Internet Source	<1 %
48	<a href="https://polgan.ac.id">polgan.ac.id</a> Internet Source	<1 %
49	pravash ghosh. "Sustainability of the Higher Educational Institute : a Systematic Literature Review and Future Research Directions", Research Square Platform LLC, 2023 Publication	<1 %
50	<a href="https://123dok.net">123dok.net</a> Internet Source	<1 %
51	Gulmah Sugiharti. "Improve Outcomes Study subjects Chemistry Teaching and Learning Strategies through independent study with the help of computer-based media", Journal of Physics: Conference Series, 2018 Publication	<1 %

52

[journals.kozminski.cem-j.org](http://journals.kozminski.cem-j.org)

Internet Source

<1 %

53

[www.psih.uaic.ro](http://www.psih.uaic.ro)

Internet Source

<1 %

54

[dwiwidjanarko.com](http://dwiwidjanarko.com)

Internet Source

<1 %

Exclude quotes Off

Exclude matches Off

Exclude bibliography Off