

Surveying an Employability Skills Model for Vocational Stream Students with Learning Disabilities to Meet Industry Demands

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Abstract: The unemployment issue among Vocational Stream Students with Learning Disabilities (VSSwLD) is a growing concern in Malaysia. This condition worsens with a mismatch between students' employability skills and industry requirements. Relying on online questionnaires administered to SMPKV leavers nationwide, this quantitative study identifies the marketability level of VSSwLD leavers and how to develop a model to meet industry demand. Rasch Model with Winstep software version 3.69.1.11 was used to analyze the frequency, means, and percentage scores. Results show that the level of students' marketability is very low and therefore a model to develop their skills to meet industry demand is deemed necessary. This model serves as a guide to equip VSSwLD with the necessary skills needed by the industry before their study completion. The study also provides a reference for teachers on how to support the development of the employability skills of their students.

Keywords: employability skills, industry demands, students with learning disabilities, unemployment, vocational stream

1. Introduction

The Industrial Revolution 4.0 shows the demands of the industry on a skilled and semi-skilled workforce in leading and shaping the future of a country (Ana, 2020; Rosina et al., 2021). Malaysia needs a skilled workforce that meets the needs of the industry to overcome the country's unemployment rate, reduce the country's dependence on foreigners, increase the country's economic growth, and drive the country toward developed countries in line with the era of revolution 4.0 (Lim, 2019).

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Employers are concerned about human capital who have employability skills as preparation for competing in the job market (Husain et al., 2010; Al-Najar et al., 2019). Employability skills are the personal skills and attribute that a person demonstrates and exhibits in their field of job specialization where it helps a person to get a job, stay in their job, grow and progress in their career towards achieving their maximum self-potential, achieve their goals as well as the organization in which they work (Sarfraz et al., 2018).

The unemployment issue is getting worse nowadays as Malaysia is also affected. According to the Department of Statistics Malaysia, the number of unemployed in Malaysia in March 2020 was 610,500 people compared to 525,200 unemployed in February 2020. There was an increase of 85,300 unemployed in a month and become a fretful situation. This is equivalent to 3.9 percent of the unemployment rate for March 2020 compared to 3.3 percent of the unemployment rate for February 2020. This unemployment issue involves normal individuals as well as people with special needs or People with Disabilities (PWD) (Maryanti et al., 2021a).

The number of PWD workers who are working and receiving disability workers allowance for 2017 is 78,536 people. This number is quite small compared to the total number of PWD registered with the Social Welfare Department for the year 2017 which is 453,258 people. This shows that only 17.3% of PWD successfully penetrated the job market in 2017. Despite many studies on employability skills among vocational students with learning disabilities in the Malaysian context, they have not addressed how to align the employability skills of vocational students with learning disabilities with industry demands. Therefore, this study explores the level of marketability of VSSwLD and how to develop a model so that their skills meet industry demands. Department of Social Welfare identified a total of 78,536

PWD who received disability workers allowance out of 453,258 PWD who registered with the Department of Social Welfare for 2017. It shows that only a few PWD get employed and have a job.

Malaysia has a large number of people with disability. Department of Social Welfare identified a total of 497,390 people with disability classified into seven categories with different numbers. They are disabilities of physical (179,222), learning (170,269), mental (41,218), impairment of hearing (44,523), visual (36,171), various disabilities (23,415), and speech disabilities (2,572). That is why awareness and support for PWD (Onojah et al., 2022; Olatunji & Babalola, 2022; Musayaroh, 2022). There are seven categories of disabilities for PWD or people with special needs (Maryanti et al., 2021a): (i) Visual Impairment, (ii) Hearing Impairment, (iii) Physical Disability, (iv) Learning Disabilities, (v) Speech Disability, (vi) Mental Disability, and (vii) Various Disability. Among these seven categories, Learning Disabilities (LD) category contributes the second-highest number of PWDs in Malaysia. Table 2 shows the Registration of PWDs by category of disabilities for 2018.

In schools, people with special needs or known as Special Education Needs Students (SENS) refers to students who have mental, physical, or emotional characteristics that are different from the norm so they need a special education program that is Special Education where they are channeled to 3 types of Programs namely (i) Special Education School Program (ii) Integrated Special Education Program (iii) Inclusive Education Program (full inclusive PPI in the mainstream). The total amount of SENS for the year 2020 is 93,951 which 2,649 are in Special Education School, 74,447 are in Integrated Special Education Program dan 16,855 are in Inclusive Education Program (fully inclusive in the mainstream).

The Special Education School Program is a school for SENS that provides special education and involves all levels of schooling. This shows that all students placed in this school are SENS. There are six secondary schools and 28 primary and pre-school schools under the Special Education School Program until 2018. The six secondary schools are (i) Sekolah Menengah Pendidikan Khas Vokasional Indah Pura (ii) Sekolah Menengah Pendidikan Khas Vokasional Kuantan (iii) Sekolah Menengah Pendidikan Khas Vokasional Merbok (iv) Sekolah Menengah Pendidikan Khas Shah Alam (v) Sekolah Menengah Pendidikan Khas Pulau Pinang (vi) Sekolah Menengah Pendidikan Khas Setapak. Special education needs students are categorise into 6 groups which are (i) Visual impairment, (ii) Hearing impairment, (iii) Speech delay, (iv) Physical disabilities, (v) Learning disabilities, and (vi) Specific learning disabilities (dyslexia, dysgraphia, dyscalculia). Special Education Needs Students with Learning Disabilities (SENSwLD) contribute the largest number of SENS compared to others SENS category of disabilities. 77,205 of SENS are from learning disabilities category, 2,651 SENS with visual impairment, 3,829 SENS with hearing impairment, 690 SENS with speech delay, 6,921 SENS with physical disabilities and 2,655 SENS with specific learning disabilities.

People with learning disabilities often face difficulties with employment because of a few obstacles to obtaining paid work such as poor concentration, communication skills, and motivation (McConkey & Mezza, 2001). A study conducted by Tiun & Khoo (2013) on 478 people with disabilities shows that people with learning disabilities contribute the largest percentage to the number of disabled respondents who are unemployed at 53.5 percent. This is followed by the hearing impaired with 28.2 percent and the visually impaired with 13.1 percent. The salient employability skills for youth with intellectual and developmental disabilities in Singapore based on job developers are soft skills, such as attitude, dependability, stamina, flexibility, and communication are more valued than technical skills. Many reports discussed the studies supporting PWD (Kurniawan, 2022; Rahmat, 2021; Rahmat, 2022; Sumitra et al., 2021; Rusyani et al., 2022; Sultanto et al., 2023). But, this study was conducted to identify the level of marketability of Special Education Needs Students with Learning Disabilities (SENSwLD) in Sekolah Menengah Pendidikan Khas Vokasional (SMPKV) and surveying on the need of developing the employability skills model of Special Education Needs Students with Learning Disabilities (SENSwLD) in a vocational stream towards meeting the industry demands.

2. Literature Review

2.1. Employability skills of vocational stream students with learning disabilities

There are a total of 3,059 applications from various categories of PWD to hold positions in the public sector but only 27 people were accepted and appointed to work. Among 27 people who were successfully appointed, none of them were from the category of learning disabilities even though the number of people with learning disabilities who applied was 231 people. SENSwLD who want to work should master employability skills so that they can penetrate the job market.

The main factor PWD are barred from getting the job is because they do not master the employability skills. The lack of employability skills of these PWD makes it difficult for these special people to get a job. Studies conducted by Rasit & Tahar (2018) and Izam et al., 2019 show that the level of employability skills SENSwLD in SMPKV Indahpura is at a moderate level. This shows that SENSwLD has not yet mastered the employability skills well and employability skills that they did not master are problem-solving skills and communication skills (Rasit & Tahar, 2018), information management competencies, system competencies, technology competencies, resource management competencies, and thinking skills (Izam, 2016).

Technical and vocational education requires teachers to apply employability skills in the teaching and learning process as technical and vocational education focuses on producing a skilled and semi-skilled workforce. Some studies show that SMPKV teachers have applied employability skills to SMPKV students directly in the process of learning and teaching or indirectly such as through co-curricular activities (Husain et al., 2010). The level of application of generic skills elements in teaching

PTV teachers in SMPKV is high. Teachers at SMPKV were found to frequently use discussion methods, project methods, and lecture methods. Although teachers have applied employability skills in the teaching process across the curriculum, the problem of unemployment among SENSwLD still occurs (Izam & Wan Mohamed, 2020; Maryanti et al., 2021b; Maryanti & Nandiyanto, 2021; Maryanti & Nandiyanto, 2023). This may be due to a mismatch between employability skills required by the employer and the employability skills owned by VSSwLD.

2.2 Industry demands in the Malaysian context

Employers play an important role in overcoming the unemployment issue of SENSwLD as employers have the authority to hire them. Employers have the authority to choose and employ SENSwLD. Therefore, the employer's need for SENSwLD employability skills should be identified to meet the expectation and hope of employers and subsequently employ SENSwLD. Previous studies have shown that employers are less satisfied with the work performance of PWD because PWD does not meet their needs (Yamaki & Fujiura, 2002; Smith et al., 2004; Samian et al., 2013).

Among the employability skills emphasized by employers for Special Needs employees with Learning Disabilities are productivity, safety, attendance, punctuality, appearance, and social skills (Unger, 2002). Ju et al. (2012) reported that the five most important employability skills that should be mastered by people with special needs who have just started work according to the employer's assessment are showing self-integrity/honesty, ability to obey instructions, ability to show respect in others, the ability to be punctual, the ability to show high respect for safety procedures. Basic skills such as reading and writing skills and work skills such as maintaining the quality of work, attendance, ability according to the work schedule set as well as the ability to complete the assigned tasks are skills demanded by employers towards employees.

The mismatch between employability skills required by employers and employability skills in SENSwLD is one of the factors that make it difficult for these special groups to penetrate the job market and lead to unemployment (Yamaki & Fujiura, 2002). Although the teachers of SMPKV have applied employability skills to SMPKV students either directly in the learning and teaching process or indirectly such as through co-curricular activities (Yusof et al., 2013), however, employability skills owned by students does not necessarily match the needs of the employers. Therefore, the employability skills required by employers to be mastered by SENSwLD need to be identified. Feedback from employers on the employability skills they need and want from SENSwLD will be the basis and guide for SENSwLD in the process of equipping themselves with the skills required by the industry. In addition, teachers will also benefit where they will be able to identify the employability skills required by employers and industry and they can apply those skills with a focus to produce SENSwLD that master the employability skills required by employers and industry.

As a result, SENSwLD will be able to penetrate the job market easily and this situation will be able to overcome the unemployment issue among SENSwLD.

3. Methodology

This study is quantitative in the form of a survey. The analysis technique used is the descriptive data analysis technique using Rasch Model through winstep software version 3.69.1.11. The objectives of this study are to:

- i. identify the level of marketability of Special Education Needs Students with Learning Disabilities (SENSwLD) in Sekolah Menengah Pendidikan Khas Vokasional (SMPKV)
- ii. survey a need for developing the employability skills model of Special Education Needs Students with Learning Disabilities (SENSwLD) in the vocational stream towards meeting the needs of the industry.

3.1. Population and sample

The population for this study is Special Education Needs Students with Learning Disabilities (SENSwLD) who have completed school sessions at Sekolah Menengah Pendidikan Khas Vokasional (SMPKV) throughout Malaysia. This population is scattered throughout Malaysia and this situation makes it difficult for researchers to get feedback for this study. Thus, researchers use voluntary sampling techniques in the process of obtaining feedback for this study. A total of 44 respondents were involved in this study and they have answered the questionnaire distributed by the researcher online using Google Forms.

3.2. Instruments

A set of questionnaires was used as an instrument for this study, consisting of sections A, B, and C. Section A related to the demographics of the respondents. Part B assessed the marketability level of SENSwLD of SMPKV leaver. Part C contains an assessment questionnaire on the development needs of the model of employability skills of SENSwLD vocational stream towards meeting the needs of the industry. Part A contains a questionnaire related to the demographics of the respondents. There are 2 pieces of information needed in this section, namely gender and school name. Part B contains a questionnaire to assess the marketability level of SENSwLD of SMPKV leaver. The instrument contains 10 items that require a 'yes' or 'no' response. The 'yes' or 'no' response is used to make it easier for the respondent to answer as the respondent is a group with special needs. Part C contains an assessment questionnaire on the need of developing the employability skills model for Special Education Needs Students with Learning Disabilities (SENSwLD) in the vocational stream toward meeting the needs of the industry. The questionnaire for part C was constructed by the researcher based on the literature review and adapted from previous researchers. This instrument contains 3 items that require a 'yes' or 'no' response. The 'yes' or 'no' response is used to make it easier for the respondent to answer as the respondent is a group with special needs.

3.3. Reliability of research instruments

To test the consistency of the instrument, the researcher looked for the Cronbach Alpha value of the instrument. The value of Cronbach Alpha is often referred to during the measurement of the internal consistency of a construct. Cronbach Alpha values, less than 0.6 are considered low and unacceptable, between 0.60 to 0.80 indicating acceptable reliability while Cronbach alpha values above 0.8 are considered good. Interpretation of Cronbach alpha scores is shown in Table 1.

Table 1: Cronbach alpha score interpretation

Cronbach score	Level of reliability
>0.80	High reliability
0.60-0.80	Reliability is acceptable
<0.60	Low reliability

The Cronbach alpha value of the SENS_wLD of SMPKV leaver for marketability assessment instrument and the assessment of the development needs of the workability skills model of Students with Special Education Needs with Learning Vocational streams towards meeting the needs of the industry are shown in Table 2.

Table 2: Reliability of the study instrument

Questionnaire	Number of items	Cronbach alpha value
Marketability level assessment questionnaire for SENS _w LD of SMPKV leaver.	10	0.71
Assessment questionnaire on the needs of developing the employability skills model of Special Education Needs Students with Learning Disabilities (SENS _w LD) in a vocational stream towards meeting the needs of the industry.	3	1.0

4. Results

4.1. Objective of study 1: Identify the level of marketability of Special Education Needs Students with Learning Disabilities (SENS_wLD) in Sekolah Menengah Pendidikan Khas Vokasional (SMPKV)

To identify the level of marketability level of Special Education Needs Students with Learning Disabilities (SENS_wLD) of SMPKV leaver, winstep software version 3.69.1.11 was used. Descriptive analysis was used in this study to determine the mean value. The mean scores of the marketable items of MBPKBP graduates of SMPKV were used to answer this question. The mean score located between 1.00 to 2.33 indicates a low level of inclination, a mean score between 2.34 to 3.67 has a moderate level of inclination while a mean score of 3.68 to 5.00 indicates a high level of inclination. Table 3 shows the interpretation of the mean score.

Based on the analysis, the mean value of the score for the marketability level of MBPKBP graduates of SMPKV is $61.3 / 44 = 1.39$. Mean interpretation table, the value of 1.39 is at a mean score of 1.00 to 2.33 which indicates a very low tendency level. This shows that the level of marketability of SENS_wLD of SMPKV leavers is very low. To identify the marketability level of SENS_wLD SMPKV leaver, a total of

10 items were used where winstep software version 3.69.1.11 was used to measure the percentage for each item. The level of marketability of SENS_wLD SMPKV leaver is very low. The results of the survey found that 75% of the respondents were working while 25% were not working. This shows that 33 respondents are working and 11 respondents are not working. 59% of respondents or 26 respondents work full time. 43% of respondents or equivalent to 19 respondents work in the same field as studied in SMPKV. Only 16% of respondents or 7 respondents work in the public sector. 50% of respondents got a job within six months after finishing school at SMPKV. This shows that half of the respondents have not yet found a job after six months of finishing the school session at SMPKV. Only 20% of respondents have remained in employment for 2 years or more. 11% of respondents have stopped working 5 times or more. 61% of respondents or 27 respondents are satisfied with their current job. 41% of respondents feel comfortable getting a job in the same field as they studied at SMPKV. The results of the survey also found that only 16% of respondents have ever been promoted.

Table 3: Interpretation of mean scores by Landell.

Mean score	Level of inclination
1.00-2.33	Low
2.34-3.67	Medium
3.68-5.00	High

4.2. Objective 2: To survey the needs of developing the employability skills model of Special Education Needs Students with Learning Disabilities (SENS_wLD) in the vocational stream towards meeting the industry demands.

To survey the needs of developing the employability skills model of Special Education Needs Students with Learning Disabilities (SENS_wLD) in the vocational stream towards meeting the needs of the industry, a total of 3 items were used where winstep software version 3.69.1.11 was used to measure the percentage for each item. As a result of the survey on the need of developing the employability skills model of Special Education Needs Students with Learning Disabilities (SENS_wLD) in the vocational stream towards meeting the industry demands, it was found that 48% of respondents felt that the welfare of SENS_wLD in terms of job opportunities is not taken care of. 80% of respondents or 35 respondents felt that the solution to the problem of mismatch the employability skills required by employers with the employability skills owned by SENS_wLD of SMPKV leaver needs to be identified. 82% of respondents or 36 respondents agreed with the development of the SENS_wLD employability skills model towards meeting the needs of the industry.

5. Discussion

The level of marketability of VSS_wLD leaver is very low. The results of the survey found that 75% of the respondents were working while 25% were not working. This shows that 33 respondents are working and 11 respondents are not working. This shows that there are still SMPKV students

who have not been able to penetrate the job market even though they have a Malaysian Skills Certificate based on vocational skills learned at SMPKV other than the academic syllabus. This may be due to a mismatch of the employability skills required by the employer with the employability skills available at SENS_wLD who have not yet been hired. This corresponds to a study conducted by Ju et al. (2012) where the findings show that the main factor that causes PWD to be barred from getting a place in the open job market is because they do not master employability skills.

Fifty-nine percent (59%) of respondents or 26 respondents work full time. This shows that 7 respondents who are working are only part-timers workers. This shows that SENS_wLD SMPKV leavers face difficulties in getting a permanent job and being employed by employers. This is in line with the findings of a study by Bullare who stated that PWD faces the problem of injustice such as in terms of employment opportunities where there is inequality of opportunities in work placement between SENS_wLD and normal person. Forty-three percent (43%) of respondents or equivalent to 19 respondents work in the same field as studied in SMPKV. This shows that 14 respondents work in different fields with the field studied at SMPKV. This shows that although the respondents are equipped with skills in their respective fields it is not a guarantee for them to work in the fields, they studied at SMPKV.

Only 16% of respondents or 7 respondents work in the public sector. This shows that the number of SENS_wLD SMPKV leavers accepted to work in the public sector is small. This is in line with the report which states that none of the 231 public sector job applicants from the category of people with special needs with learning disabilities are accepted to work and hold positions in the public sector. 50% of respondents got a job within six months after leaving school at SMPKV. This shows that half of the respondents still have not got a job after six months of finishing the school session at SMPKV and this is a relatively long period. This may be due to the student's factors such as being passive (Ali & Abdullah, 2018), lack of skills, and having negative psychological characteristics (Ng Lee et al., 2011) or due to employer factors such as low perception of skills employability of people with special needs (Ju et al., 2012).

Only 20% of respondents have remained in employment for 2 years or more. 11% of respondents have quit working 5 times or more. This shows that SENS_wLD is easy to quit and faces difficulty remaining in their job. This is in line with a study conducted by Samian et al. (2013) who found that these PWD are less loyal to work and have problems in attendance. 61% of respondents or 27 respondents are satisfied with their current job. 41% of respondents are happy to get a job in the same field as they studied at SMPKV. This shows that most SMPKV leavers find it difficult to get a job in the same field as they studied at SMPKV. The results of the survey also found only 16% of respondents or only 7 respondents have ever been promoted. This indicates that the number of respondents who have been promoted is small.

As a result of a survey on the need of developing the employability skills model of Special Education Needs Students with Learning Disabilities (SENS_wLD) in the vocational stream towards meeting the needs of the industry, it was found that 48% of respondents felt that the welfare of VVS_wLD leaver in terms of job opportunities is not taken care of. 80% of respondents or 35 respondents felt that the solution to the problem of mismatching the employability skills required by employers with the employability skills owned by VVS_wLD needs to be identified. This shows that most of the respondents feel that the matching point of employability skills required by employers and industry with the employability skills that need to be owned by VVS_wLD needs to be acquired. This is in line with the findings of feedback where 82% of respondents or 36 respondents agreed with the development of the VVS_wLD employability skills model towards meeting the needs of the industry. This shows that a large number of respondents need the development of the VVS_wLD employability skills model towards meeting the needs of the industry as one of the efforts to overcome the problem of marketability VVS_wLD.

6. Conclusion

Based on the findings of the study, it is clear that employers play a big role in providing space and opportunities to provide work to VSS_wLD. VSS_wLD leavers have been equipped with certain work skills as the SMPKV curriculum itself. They have been equipped with academic syllabus and vocational skills that lead to enhanced skills for students in their respective fields with an emphasis on employability skills. Although the curriculum at SMPKV has focused on producing semi-skilled workers with academic syllabus and vocational skills applied to SMPKV students, the findings show that the level of marketability of VSS_wLD is still low. This shows that VVS_wLD still faces problems penetrating the job market. The mismatch of workability skills required and required by employers and industry with the employability skills owned by VSS_wLD SMPKV leaver has been seen as a major factor in this problem. Thus, this problem needs to be solved by developing the employability skills model of VVS_wLD towards meeting the industry demands. By developing this model, the employability skills required by employers and the industry for VVS_wLD will be able to be identified. Therefore, it can be used as a guide for VSS_wLD to equip themselves with these skills in preparation for them to step into the world of work and have a bright opportunity to penetrate the job market. In addition, this model can be used as a reference by SMPKV teachers in the process of applying employability skills to students across the curriculum with more focus and purpose. As a result, the marketability of VSS_wLD leavers will be able to increase and this will also be able to reduce the unemployment rate of VSS_wLD in Malaysia.

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Reference

- Ali, A., and Abdullah Zawawi, Z. (2018). Tahap penguasaan terhadap komponen masakan dalam kalangan pelajar pendidikan khas masalah pembelajaran. *Online Journal for TVET Practitioner*, 3(1), 1-13.
- Al-Najar, H., Khalil, H., and Rahayu, Y. S. (2019). High unemployment records of graduated students in the development of urban agriculture in the Gaza Strip. *Indonesian Journal of Science and Technology*, 4(2), 196-203.
- Ana, A. (2020). Trends in expert system development: A practicum content analysis in vocational education for over grow pandemic learning problems. *Indonesian Journal of Science and Technology*, 5(2), 246-260.
- Husain, M. Y., Mokhtar, S. B., Ahmad, A. A., and Mustapha, R. (2010). Importance of employability skills from employers' perspective. *Procedia-Social and Behavioral Sciences*, 7, 430-438.
- Izam, S. (2016). Kemahiran Keboleherjaan Pelajar SMPKV Indahpura Bermasalah Pembelajaran. *Universiti Tun Hussein Onn Malaysia*.
- Izam, S., Ab Halim, F., and Wan Mohamed, W. A. (2019). Employability skills of students with learning disabilities in Sekolah Menengah Pendidikan Khas Vokasional Indahpura. *International Journal of Innovative Technology and Exploring Engineering (IJITEE)*, 9(2), 2622-2629.
- Izam, S., and Wan Mohamed, W. A. (2020). The unemployment of special needs with learning disability people in Malaysia: Reality of fantasy. *Journal of Economic Info*, 7(2), 141-150.
- Ju, S., Zhang, D., and Pacha, J. (2012). Employability skills valued by employers as important for entry-level employees with and without disabilities. *Career Development and TRansition for Exceptional Individuals*, 35(1), 29-38.
- Kurniawan, T. (2022). Design of places of worship for people with special needs. *ASEAN Journal of Community and Special Needs Education*, 1(1), 17-22
- Lim, G. E. (2019). *Belanjawan Tahun 2020*.
- Maryanti, R., and Nandiyanto, A. B. D. (2021). Curriculum development in science education in vocational school. *ASEAN Journal of Science and Engineering Education*, 1(3), 151-156.
- Maryanti, R., Hufad, A., Sunardi, S., and Nandiyanto, A. B. D. (2021b). Analysis of curriculum for science education for students with special needs in vocational high schools. *Journal of Technical Education and Training*, 13(3), 54-66.
- Maryanti, R., Nandiyanto, A. B. D., Hufad, A., and Sunardi, S. (2021a). Science education for students with special needs in Indonesia: from definition, systematic review, education system, to curriculum. *Indonesian Journal of Community and Special Needs Education*, 1(1), 1-8.
- Maryanti, R., and Nandiyanto, A. B. D. (2023). Curriculum development in science education in vocational school. *ASEAN Journal of Science and Engineering Education*, 1(3), 151-156.
- McConkey, R., and Mezza, F. (2001). Employment aspirations of people with learning disabilities attending day. *Journal of Intellectual Disabilities*, 5(4), 309-318.
- Musayaroh, S. (2022). Behaviors of concern to special education teachers in their classroom: Class characteristics and class composition predictors. *ASEAN Journal of Community and Special Needs Education*, 1(2), 55-60.
- Ng Lee, M., Abdullah, Y., and See, C. M. (2011). Employment of people with disabilities in Malaysia: Drivers and inhibitors. *International Journal of Special Education*, 26(1), 112-124.
- Olatunji, I., Babalola, E.O. (2022). Undergraduates with special needs' awareness towards the use of assistive technology for learning at the university level. *ASEAN Journal of Community and Special Needs Education*, 1(2), 45-54.
- Onojah, A.A., Aderere, S.O., Ahmed, F.T., Nathaniel, S., Onojah, A.O. (2022). Perception of special needs undergraduates on the use of assistive technology for academic purposes. *ASEAN Journal of Community and Special Needs Education*, 1(2), 37-44.
- Rahmat, A. (2021). Standards for dimensions of space and environment in buildings for people with special needs (i.e. Wheelchairs, crutches, canes for the visually impaired). *Indonesian Journal of Community and Special Needs Education*, 1(1), 19-24.
- Rahmat, A. (2022). Creating good environment and building for people with special needs: from definition to application of guiding and warning blocks. *Indonesian Journal of Community and Special Needs Education*, 2(1), 39-44.
- Rasit, N., and Tahar, M. M. (2018). The employability skills among vocational school students in the final year of Malaysian Skills Certificate. *Jurnal Penelitian dan Pengembangan Pendidikan Luar Biasa*, 5(1), 57-61.
- Rosina, H., Virgantina, V., Ayyash, Y., Dwiyantri, V., and Boonsong. S. (2021). Vocational education curriculum: Between vocational education and industrial needs. *ASEAN Journal of Science and Engineering Education*, 1(2), 105-110.
- Rusyani, E., Ratnengsih, E., Putra, A. S., Maryanti, R., Husaeni, D. F. A., and Ragadhita, R. (2022). The drilling method application using abacus to arithmetic operations skills in student with hearing impairment at special school. *Indonesian Journal of Community and Special Needs Education*, 2(1), 1-10.
- Samian, S. S., Md Ali, K., and Buntat, Y. (2013). Persepsi majikan terhadap pekerja Orang Kurang Upaya (OKU) dalam prganisasi di Negeri Johor. *2nd International Seminar on Quality and Affordable Education (ISQAE 2013)*, 2, 349-353.
- Sarfraz, I., Rajendran, D., and Hewege, C. (2018). An exploration of global employability skills: A systematic

research review. *International Journal Work Organisation and Emotion*, 9(1), 63–88.

Smith, K., Webber, L., Graftam, J., and Wilson, C. (2004). Employer satisfaction, jobmatch and future hiring intentions for employees with a disability. *Journal of Vocational Rehabilitation*, 21, 165–173.

Sultanto, M.A., Al Afghani, R.I., Meisya, S.D., Salsabila, I.A., Rohimat, S.S., Stephani, M.R. (2023). Physical education online class for students with hearing impairment during Covid-19 pandemic. *ASEAN Journal of Community and Special Needs Education*, 2(1), 17-26.

Sumitra, I. D., Wirawan, E., Putra, M., Kusumaningrat, I., and Maulana, H. (2021). Design of webinar information system for people with hearing impairments. *Indonesian Journal of Community and Special Needs Education*, 1(2), 77-86.

Tiun, L. T., and Khoo, S. L. (2013). Challenges faced by Malaysians with disabilities in the world of employment. *Disability, CBR and Inclusive Development (DCD) Journal*, 24(1), 6–21.

Unger, D. D. (2002). employers' attitudes toward persons with disabilities in the workforce: myths or realities? *Focus on Autism and Other Developmental Disabilities*, 17(1), 2–10.

Yamaki, K., and Fujiura, G. T. (2002). Employment and income status of adults with developmental disabilities living in the community. *Mental Retardation*, 40(2), 132–141.

Yusof, M.A., Mohd Ali, Ma., and Mohd Salleh, A. (2013). Pendidikan vokasional pelajar berkeperluan khas ke arah memenuhi pasaran pekerjaan. *Proceeding of the International Conference on Social Science Research, ICSSR 2013, 4-5 June 2013*, 1189–1196.