

## **Teacher Readiness towards the Offer of Malaysian Skills Certificate in Special Education Integration Programme in Secondary Schools**

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**Abstract:** The Malaysian Skills Certificate (SKM) is a skill certificate awarded to the students with special needs (MBK) who learn in Special Education Integration Program (PPKI) in secondary schools after 5 years of learning duration beginning the year 2017. This certification is to provide opportunities for more MBK to be recognised in terms of skills that they possess and to produce more skillful learners among MBK. Therefore, the purpose of this study is to identify the level of teacher readiness in the aspects of knowledge, skills and attitude of secondary PPKI teachers towards SKM offerings. This study is based on the Thorndike theory by modifying the Shullman PKIK Model, Katz Model and ABC Attitude Model. This descriptive and inference review study uses a five-point Likert scale questionnaire as an instrument. A total of 30 special PPKI Special Education teachers were purposely selected in the Petaling Perdana district. The data obtained were analyzed using SPSS software. The findings show that teachers' knowledge level is high, skills are moderate, and teachers' attitude is high. The independent T-test shows no significant difference between teachers' level of knowledge based on gender. One-way ANOVA test shows that there is no significant difference between teachers' skills and teaching experience and there is no difference between teachers' attitude based on teacher's academic qualification. The researcher hopes that the findings would help the Ministry of Education to improve the skills of the teachers by giving SKM recognition to them before conducting vocational teaching. The success of teachers in training MBK students in vocational fields can produce students who are competitive, skillful and have a career that can contribute to themselves, families, communities and the country.

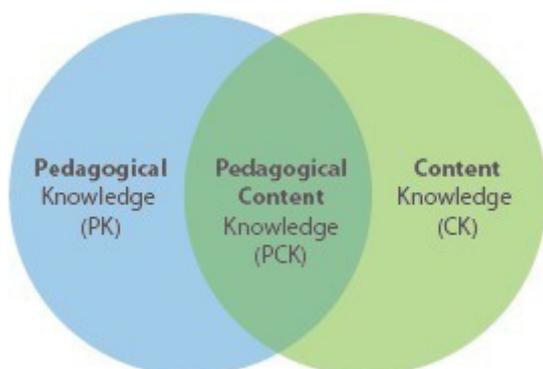
**Keywords:** teacher readiness, *sijil kemahiran malaysia*

Intellectual and social development factors are not barriers to all children to enjoy and benefit from education. It is a social responsibility of the community to ensure that individuals with special needs have similar access to education. This has been clearly stated in several international declarations (KPM Special Education Division, 2008). Thus, various efforts have been made to enable individuals with special needs to enjoy education in ways which are suitable for them and to empower them especially after they leave schools. Among the efforts is the introduction of the Secondary School Standard Curriculum for Special Education (KSSMPK) in the Malaysian Education Blueprint (PPPM) which is now in the second wave. The curriculum aims to strengthen programmes for students with special needs by expanding the paradigm of vocational education through more flexible teaching and learning processes, which puts more focus on the needs of individuals with disabilities. This new curriculum approach is an alternative approach aimed at curbing problems and difficulties experienced by MBK during the learning process in the previous Secondary School Integrated Curriculum (Curriculum Development Division (KPM) 2016).

The introduction of this new curriculum for Special Education is expected to enhance the learning power and intellectual ability of MBK, to foster disciplines in learning among them, to improve their memory functions and to have effective time management. In addition to strengthening individual learning, it can also empower MBKs' to move towards their dreams and goals by planning a career through a proper and effective learning culture with the guidance of a special education teacher thereby enhancing MBK's future achievements (Hayati & Suhaida, 2014)

The purpose of the school curriculum transformation is to restructure and improve the existing curriculum. The curriculum change from KBSM to KSSM for Special Education is to ensure students with special educational needs are provided with the knowledge, skills and values relevant to the current needs in facing the challenges at the workplace particularly for this group (KPM, 2016).

The implementation of this new curriculum based on vocational education for MBK is an effort to provide skills and capabilities towards career. This is because schools are the right place to deliver and prepare MBK with a supportive environment for future careers (Noraini, 2013).

**Diagram 1. PCK Shullman Model**

Among the changes brought in KSSM is that students with special needs are taught special skills so that they are skilful and able to translate what they have learnt at the future workplace and daily life. Skills learned from form 1 until form 5 (five years) will entitle MBK to SKM from the Department of Skills Development when graduating from school based on the assessment through the Curriculum and Assessment Standard Document (DSKP) by special education teachers (KPM, 2016).

Teachers are the key to education systems, policy makers and curriculum goals (Johari *et al.*, 2014). The first problem faced by special education teachers are they do not have the SKM qualification to qualify them to conduct an assessment of the MBKs' skills before the students could receive the certificates. Teachers who teach Malaysian Skills Certificate should be equipped with knowledge and skills related to the goals, concepts, elements, criteria and learning outcomes (Noor, 2013). Having a high level of skills with certification and having good pedagogical skills will help teachers to facilitate an effective learning process (Roslan, 2014).

The second problem is that there are special education teachers who are not ready and are not interested in teaching vocational subjects. To ensure that each teaching objective is achieved, the teacher needs to be more prepared with effective teaching methods, reference materials, learning activities and schedule enough time for the teaching period. Appropriate teaching methods should be tailored to the learning objectives as the objectives introduced in this vocational subject are to produce semi-skilled and skilled workforce to meet the national needs (Pihie & Asmiran 2011). This is because the Special Education teachers involved with vocational education do not have the right specific knowledge since they were not trained for technical and vocational education (Noraini, 2013). It is therefore the duty of each

individual teacher to continuously improve the quality of oneself and professionalism in training to equip themselves with generic skills and vocational skills (Kurnia, 2013).

Furthermore, the attitude of special education teachers who are nonchalant and not interested in teaching is also a problem identified. Teachers who have no interest in a particular field and are not physically and mentally prepared to teach negatively affect students' academic performance (Ismail & Subki 2013).

This study answers the following questions and hypotheses: (1) What is the level of knowledge, skills and attitude of special education teachers towards Malaysian Skills Certificate?; (2) Is there a difference in the level of special education teachers' knowledge based on gender?

H01: There is no significant difference in the level of special education teachers' knowledge based on gender. (1) Is there a difference in the level of special education teachers' skills based on teaching experience?

H02: There is no significant difference in the level of skill of special education teachers based on teaching experience. (1) Is there a difference in the level of special education teacher's attitude based on academic qualifications?

H03: There was no significant difference in the attitude of special education teachers based on academic qualifications

The hypothesis test was carried out to answer question 2 until question 4 of the research questionnaire. For H02 the findings were obtained from t-test analysis while H03 and H04 were answered through one-way ANOVA test. All hypothesis statements are in the form of null hypothesis.

## METHOD

The design of this study is a quantitative study using survey methods. This study is based on the theory of Thorndike by modifying the Shullman's Knowledge of Content Model (PCK), Katz's Skills Model and ABC Attitude Model. According to Thorndike, individuals learn best when they are physically, mentally and emotionally ready to learn and they do not learn well if they see no reason for learning (Adnie, 2016). PCK represents the blending of content and pedagogical into and understanding of new particular aspects of subject matter are organized, adapted and represented for instruction (Shullman, 2011). The PCK model shown in diagram 1.

**Table 1. Mean score interpretation for level**

Mean Score	Level
3.668-5.000	High
2.334-3.667	Moderate
1.000-2.333	Low

Source: Majid (1990)

**Table 2: Respondents' Demography**

Demography		Number	Percentage
Gender	Male	4	14%
	Female	26	87%
Teaching Experience	1-5 years	9	30%
	6-10 years	15	50%
	11-15 years	3	10%
	16-20 years	3	10%
	20 years and above	0	0
Academic qualifications	Phd	0	0
	Master	3	10%
	Bachelor Degree	25	84%
	Others	2	6%

Katz model has set three areas of managerial skills such as technical skill, human skills and conceptual skills. Technical skills is a knowledge about proficiency in a specific work, human skills refer to how to deal with people and conceptual skills are attitudes to work with ideas and concept. ABC model of attitude suggest that attitude represent three elements i.e affect, behavior and cognitive. Affect denotes the individual's feelings about an object or matters, behavior denotes the individual's intentions and cognitive refers to individual's beliefs toward an attitude object (Habibi, 2016)

As the study aims to see the readiness of special education teachers, a number of special education teachers who teach at PPKI secondary schools in Petaling Perdana district were chosen as samples of the population of Selangor special education teachers through simple random sampling technique. The sample selection is done in a way where the researcher chooses a sample that will provide the data based on the knowledge they possess (Noraini, 2013). The research instrument used in this study was a questionnaire consisting of 4 parts, namely: (i) respondents' demographics, (ii) teachers' knowledge about SKM (iii) teachers' skills related to SKM and (iv) teachers' attitude toward the offering of SKM. Respondents need to answer by marking (/) in the space provided by using Likert Scale in the form of Very Disagree (1), Disagree (2), Not sure (3), Agree (4) and Strongly Agree (5) according to the information required. The researcher asked for permission from the school administration

to give a briefing to the respondents and distribute questionnaires to them. A duration of 30 minutes was provided to the respondents at each school to complete the questionnaire.

This type of instrument is chosen because it can provide more accurate feedback as respondents do not have to answer verbally to the researchers to response to these questions. Questionnaire is the most effective method to obtain a large amount of data with low cost and it is also easily analyzed and administered (Majid, 1990). According to Chua (2014), the feature of a good instrument is that it must be appropriate to the respondents by having a systematic instrument format which is well-organized questions.

Data were analyzed based on 30 questionnaires collected from 2 PPKI in secondary schools in Petaling Perdana, Selangor. The data collected were analyzed using the Statistical Packages for Social Science (SPSS) Version 20.0 to determine the level of readiness of special education teachers in the aspects of knowledge, skills, and attitudes towards the offering of SKM, differences in teachers' level of knowledge based on gender, differences in teachers' level of skills based on teaching experience and differences in teachers' attitude based on their academic qualifications. The level of readiness is analyzed based on mean score interpretation. In this case, the researcher used the indicator of mean score interpretation which was built by Majid (1990) as shown in table 1.

**Table 3. The level of readiness of knowledge, skills and attitude of teachers according to the number of respondents**

Readiness/ Level	Low	Moderate	High	Total
Knowledge	0 (0%)	14 (46.67%)	16 (53.33%)	30 (100%)
Skills	2 (6.66%)	17 (56.66%)	11 (36.68%)	30 (100%)
Attitude	0 (0%)	3 (10%)	27 (90%)	30 (100%)

**Table 4. Mean Score for Teacher's Readiness Level**

Aspect	Mean Score	Level
Knowledge	3.7603	High
Skill	3.2533	Moderate
Attitude	4.1517	High
<b>Overall Total</b>	<b>3.7217</b>	<b>High</b>

**Table 5. The independent T-test result of female and male teachers' level of knowledge.**

Group	N	Mean	Standard Deviation	df	t	p
Male	4	3.4500	.28577	28	-1.657	0.109
Female	26	3.8173	.42543			

p > 0.05

**Table 6. Test results of one-way Anova test for the level of teacher's skill based on teaching experience**

Sources	SS	df	Mean Square	F	p
Between groups	1.93	3	0.643	2.726	0.065
Within groups	6.135	26	0.236		
Total	8.065	29			

p > 0.05

## FINDINGS AND DISCUSSION

### Findings

#### Respondent Demographic

A total of 30 teachers were chosen as respondents for this study and it was found that 87% of them (n=20) are women, 14% (n=4) are male teachers. 30% of the special education teachers have teaching experience ranging from 1 to 5 years, 50% (n=15) have 6 to 10 years of teaching experience, while the rest have teaching experience between 11-15 years (n=3) and 16 to 20 years (n=3) with the same percentage of 10%. The findings on respondents' level of education indicate

that 10% of respondents have Master's qualifications (n=3), 84% of them (n=25) have a Bachelor's Degree and the remaining 2% have other qualifications. Three aspects of readiness to be examined are the readiness of knowledge, skills and attitude of special education teachers in PPKI in secondary schools towards the offering of Malaysian Skills Certificate as illustrated in Table 2.

#### Knowledge, Skills and Teacher's Attitude on SKM

Based on Table 3, the level of each aspect of readiness is translated into percentage to differentiate between levels.

Table 4 shows the mean score of the overall level of readiness of the special education teachers in PPKI on the offering of SKM. The findings reveal the level of readiness of special education teachers in PPKI in secondary schools towards the offering of SKM in terms of knowledge, skills and attitudes. Based on Table 3, the mean level of the three aspects shows different figures. The attitude aspect was highest (4.1517), followed by knowledge aspect (3.7603) and the lowest aspect was teacher skills area (3.2533). Overall, this finding shows that the level of teacher readiness is at a high level (3.7217). Overall, the readiness of secondary PPKI teachers is high.

Humans ability to understand and interpret whether in the form of observation or experience to the extent that it can be used in the consideration of making any form of decision is also referred to as skills (Roslan, 2014). In this study, the mastery of skills among secondary PPKI teachers showed moderate value.

Teachers who do not try to master the skills will not be up-to-date, stagnant and even might be obsolete. In this study, the skills are technical skills, human resource skills and conceptual skills.

The findings of this study reveal that teachers show moderate level of skills with average mean value of 3.2533. Teachers should have sufficient and high level of skills because that would ensure teachers' self confidence when delivering teaching.

Attitude is one's behavior, temperament and morals. Attitude can change, due to feelings, circumstances or anything that is unpleasant Attitudes are influenced by pleasures and surroundings. In the environment, people learn and know about many things and that's where the attitude is shaped. In other words, attitude is the gift that comes from personal desire and the stimulation of the group. Attitude will reflect the way and individual feels when he thinks, speaks or acts in any situation (Nurul, 2017).

**Table 7. One-Way ANOVA test on the Difference of Teachers' Attitude with Academic Qualification**

Sources	SS	df	Mean Square	F	Sig.
Between group	0.551	2	0.275	2.255	0.124
Within Group	3.297	27	0.122		
Total	3.847	29			

$p > 0.05$

In this study, teachers' attitude shows a high mean value of 4.1517. Most PPKI teachers view the SKM offering to MBK as a good effort and would give a lot of benefits. It is an effort to shape the students with special needs' career in the future. Continuous support and positive attitude of the teachers are very important to ensure that the process of teaching and learning could be done in a good and enjoyable environment.

#### *The Difference in the Level of Teacher Knowledge by Gender*

An independent sample T-test analysis was conducted to identify the significant differences between male and female teachers' level of knowledge. Analysis of the findings is shown in Table 5.

Based on the Levene test, the value of sig,  $p = 0.299 > 0.05$ , is not significant. Thus, the variance is homogeneous. When the variance is homogenous, the t-test results will be referred to the value in the 'Equal variances assumed' row. Because the Sig value is  $p = 0.612 > 0.05$ , which is not significant, therefore, the null hypothesis is accepted. Thus, the study found that there was no significant difference in the level of knowledge between male teachers (min = 3.4500, sp = 0.28577) and female teachers (min = 3.8173, sp = 0.42543) with  $t(28) = -1.657$ ;  $p = 0.109 > 0.05$  [95% CI = -0.82138 to 0.08677]

#### *Differences in the Level of Skills based on Teaching Experience*

In addition to identifying the differences between teachers' level of knowledge based on gender using descriptive analysis, this study also conducted an ANOVA test to examine the difference of teachers' skills level based on their teaching experience as well as to see the difference in teachers' attitude based on academic qualification. Table 6 shows the results of a one-way ANOVA test to see the significant difference in the level of teacher's skills based on the teacher's teaching experience.

ANOVA analysis ( $p > 0.05$ ) showed that there was no significant difference between teachers' level of skills

and teaching experience. The Sig value is  $p = 0.065 > 0.05$ , which is not significant. Therefore, the null hypothesis is accepted. Thus, the study found that there was no significant difference in the level of teacher's skill with teacher teaching experience;  $p = 0.065 > 0.05$ .

#### *The Difference of Attitude with Academic Qualification*

ANOVA tests are conducted to identify the significant differences between teachers' attitudes and academic qualifications. The results of the analysis in table 7. Analysis of ANOVA ( $p > 0.05$ ) shows that there is no significant difference between the level of teacher attitude and academic qualification. The Sig value is  $p = 0.124 > 0.05$ , which is not significant. Therefore, the null hypothesis is accepted. Thus, the study found that there was no significant difference in the level of teacher's attitude with academic qualifications;  $p = 0.124 > 0.05$ .

## **Discussion**

The finding show that the readiness of secondary PPKI teachers is high. This is supported by Nurul (2017) in her study where Special Education teachers have high knowledge in conducting vocational subjects. Jamaludin (2014) also agrees with this finding that teachers involved with vocational subjects have a high level of attitude, however, according to Jamaliah, the level of knowledge and skills of the teacher is at moderate level.

The result of the quantitative descriptive analysis found that teachers have high level of knowledge, moderate level of skills and high positive attitude towards SKM offering. Knowledge in this context is knowledge that involves pedagogical knowledge and knowledge of content that will shape the pedagogical knowledge of the content towards SKM offering in PPKI at secondary schools.

Extensive pedagogical knowledge can help teachers to think creatively and critically in teaching (Habibi, 2016). Knowledge of pedagogical content is a combination of content and pedagogy to form an understanding of how a topic of issue or issues is compiled, represented and adapted to the various interests and abilities of the students as well as being taught in the form of teaching and knowledge. (Shullman, 2011).

Therefore, the knowledge of Malaysian Skills Certificate is needed for a teacher to apply knowledge in teaching MBK students. An effective teacher is a teacher who has a high level of knowledge in the field (Adnie, 2016).

The study also found that there was no significant difference in the level of knowledge between male teachers. These findings are contrary to the findings

of the study by Azlina (2008), and Norhuzayanti (2013) which show that there is a significant difference between gender and teacher knowledge where male teachers are more knowledgeable than female teachers in the aspect of vocational knowledge. Knowledge of content and pedagogy is a very important aspect for a teacher to possess in order to teach effectively. It refers to the teacher's knowledge of the concepts and methods specific to the knowledge of pedagogical content as a combination of content and pedagogy to form an understanding of how a subject can be presented in the form of teaching (Nik *et al.*, 2012). According to Shullman as cited in Habibi (2016) a teacher will have an impact on his teaching if the teacher is knowledgeable. Lack of knowledge in pedagogy and content as well as a combination of both puts great influence on teachers to think creatively and critically about their teaching.

The study found that there was no significant difference in the level of teacher's skill with teacher teaching experience. The findings of this study are contrary to the findings of Khalid (2009) which state that there is a significant difference between the level of teacher's skill and the teaching experience. However, this finding is supported by Fathi (2013) where there is no significant difference between the level of skills and teaching experience of Special Education teachers.

Skills are a key aspect of a teacher to engage with vocational teaching. This skill is very important to ensure that what is taught is acceptable and understandable by the individual who are learning. Skills can be obtained if someone regularly performs the same training continuously (Adnie, 2016). Teacher's skills have a high impact on teachers' readiness to teach as skills are a key element in vocational teaching. While the level of knowledge and attitude among teachers is high, skills play a very important role in preparing special Education teachers for SKM offerings that could promise career opportunities for MBK with learning disabilities.

Based on the analysis of ANOVA shows that there is no significant difference between the level of teacher attitude and academic qualification. This finding is supported by Habibi (2016) and Fathi (2013) who mention that there is no significant difference between the attitude and academic qualifications. This clearly shows that the level of academic qualification does not influence the attitudes of some people in certain matters.

## **CONCLUSION AND SUGGESTION**

### **Conclusion**

Teachers are the backbone of education system, the implementors of education policy and objectives.

Therefore, it is the responsibility of every teacher to be sensitive and prepared with the changes brought about in education. While the SKM offers benefits to MBK, the involved parties such as the Ministry of Education should take into account the skills possessed by the teachers who have been appointed to teach MBK with SKM offerings. The teacher's ability to train MBK's students in the vocational field can produce students who are competitive, skillful and manage to have a career that can contribute to self, family, community and the nation.

### **Sugestion**

Skills need to be improved and among the proposed improvements are to provide skills training to secondary PPKI teachers until they have obtained SKM accreditation before these teachers could supervise their students with special needs in learning certain skills and obtaining the certificate. This will enable the skills to be delivered in line with the existing skills of the teacher. The acquisition of skills is also obtainable by providing in house training courses among teachers with SKM and secondary PPKI teachers who have not obtained SKM. This sharing of ideas helps to increase knowledge, improve skills and instill positive attitudes among Special Education teachers for having a support group. Practical exercises should be encouraged to allow special education teachers to have hands-on experience.

Additionally, if the SKM offering is to be implemented in line with the second wave of PPPM, teachers who need to teach MBK are teachers who have SKM certificate. This is because their level of knowledge and skills regarding the skills required by SKM are high compared to special education teachers who have no qualifications in SKM. Indeed, teachers' knowledge, skills and attitudes are the key aspects of SKM offering to MBK with learning disabilities in secondary PPKI.

Special secondary education teachers should also have the initiative to enhance their knowledge, skills and self-esteem by reviewing the implementation of SKM modules, seeking relevant reading materials and attending external courses whichever appropriate. This is to enhance knowledge and skills as well as confidence while in the classroom with MBK. Related agencies and departments should devise plans to improve trainings provided for teachers and the content of the course so that the level of knowledge and skills can be enhanced in line with the positive attitude of teachers in the MBK curriculum change.

## REFERENCES

- Habibi, A. R. (2016). Kesediaan Pengetahuan Kemahiran dan Sikap Guru Pendidikan Khas Bermasalah Pembelajaran Mengajar Kemahiran Hidup Pertanian. Universiti Kebangsaan Malaysia
- Adnie, A. (2016). Kesediaan Guru Dalam Pelaksanaan Program Transisi Kerjaya Bagi Murid Bekeperluan Khas . Malaysia, *2<sup>nd</sup> International Conference on Special Education Proceedings*: 510-515
- Yahaya, A., & Nor, R. M. (2007). Keberkesanan pengajaran dan pembelajaran di kalangan guru-guru mata pelajaran teknikal.
- Azlina, M. K. (2016). Tahap Kesediaan Pengetahuan Kemahiran Amali Guru-Guru PKPG Sekolah Rendah Mengajar Kemahiran Hidup di Sekolah Menengah. Universiti Teknologi Malaysia
- Bahagian Pembangunan Kurikulum (KPM). 2016. *Buku Penerangan KSSM*. Putrajaya: Kementerian Pelajaran Malaysia.
- Chua, Y. P. (2014). *Kaedah Penyelidikan*. t.tp: Mc GrawHill Education
- Johari, F. M. B., Othman, W., Ismail, H. N., & Isa, Z. (2014). Isu dan Cabaran Pelaksanaan Pendidikan Asas Vokasional (PAV) di Sekolah Menengah Harian, Malaysia. *Conference on Professional Development in Education*, hlm. 98–106. <http://repository.widyatama.ac.id/xmlui/handle/123456789/3327>
- Hayati M, I. M., & Suhaida, A. K. (2014). Vocational Skills Required By Integrated Special Education Students With Learning Disabilities At Public Daily Secondary School.
- Ismail., & Subki, 2013. *Guru dan Cabaran Semasa*. Edisi Kedu. Kuala Lumpur: Penerbitan Multimedia Sdn Bhd.
- Jabatan Pembangunan Kemahiran. 2017. Sijil Kemahiran Malaysia. <http://www.dsd.gov.my/index.php/my/sijil-kemahiran-malaysia-skm> [19 September 2017].
- Jamaludin, J. (2014). Kesediaan guru kolej vokasional dalam pengajaran amali teknologi elektronik di Negeri Pahang (Doctoral dissertation, Universiti Tun Hussein Onn Malaysia).
- Khalid, J. (2009). Pengaruh Jenis Lantikan Guru Dan Pengalaman Mengajar Ke Atas Efikasi Guru Sekolah Menengah. *Jurnal Pendidikan Malaysia*. 3-14
- Kurnia, D. (2013). Post-study pre-service practical training programme for TVET Teacher Students. *RCP. Shanghai. Online: http://www.tvet-online.asia/series/RaD\_vol-1\_Kurnia.pdf* (retrieved 27.06. 2014)..
- Fathi, M. A. (2013). Penerapan Elemen Kemahiran Generik Dalam Pengajaran Guru PTV Di Sekolah Menengah Pendidikan Khas Vokasional (SMPKV) Di Malaysia (Doctoral dissertation, Universiti Teknologi Malaysia).
- Majid, M. K. (1990). Kaedah penyelidikan pendidikan. *Kuala Lumpur: Dewan Bahasa dan Pustaka*.
- Nik, M. R., Nurulhuda, H., & Afifi, M. (2012). Pengetahuan Pedagogi Isi Kandungan (PPIK) Pengajaran Bahasa Arab. *Persidangan Kebangsaan Pengajaran Dan Pembelajaran Bahasa Arab 2012 (PKEBAR'12)*, 2012(1987), 225–235.
- Noraini, I. (2013). *Penyelidikan Dalam Pendidikan*. Edisi Kedua. t.tp: Mc GrawHill Education.
- Norhuzayanti, N. (2013). Kesediaan Bakal Guru DPLI Terhadap Kursus Elektromekanikal untuk Mengajar Di Sekolah Menengah. Universiti Tun Hussien Onn Malaysia.
- Ali, N. F. S. M., & Mohamed, S. (2017). The Readiness Level of Special Education Teachers in Learning Strategies of Students with Hearing Disability. *Journal of ICSAR*, 1(2), 175-179.
- Ahmad, N. A., & Abu Hanifah, N. (2015). Tahap Pengetahuan Guru Pendidikan Khas Apabila Mengurus Tingkah Laku Murid Bermasalah Pembelajaran (Special Education Teacher's Level Of Knowledge In Dealing With Learning Disabilities Student). *The Asia Pacific Journal of Educators and Education (formerly known as Journal of Educators and Education)*, 30(1), 1-16.
- Noor, Z. J. (2013). Tahap Pengetahuan Dan Keyakinan Guru Pendidikan Khas Terhadap Murid Kecelaruan Kurang Tumpuan Dan Hiperaktif (KKTH). Universiti Kebangsaan Malaysia
- Abdullah, N., Yasin, M. H. M., & Abdullah, N. A. (2015). Implementation of the inter-agency collaboration in vocational education of students with learning disabilities towards preparation of career experience. *Asian Social Science*, 11(18), 183-192.
- Abdullah, N., Yasin, M. H. M., Deli, A. A. A., & Abdullah, N. A. (2015). Vocational Education as a Career Pathway for Students with Learning Disabilities: Issues and Obstacles in the Implementation. *International Journal of Education and Social Science*, 2(3), 98–104.
- Nurul, F. D. (2017). Kesediaan Guru Pendidikan Khas Masalah Pembelajaran Melaksanakan Pengajaran Kemahiran Vokasional Tanaman. *Prosiding Seminar Serantau*, hlm. 138-146.

- Khalid, N. I., Asimiran, S., & Pihie, Z. A. L. (2012). Kesediaan Guru-guru Mata Pelajaran Aliran Vokasional Melaksanakan Program School Enterprise di Sekolah Menengah Teknik dan Vokasional. *Sains Humanika*, 59(1), 29–39.
- Pihie, Z. A. L., & Asmiran, S. (2011). *Transformasi Kepemimpinan Pendidikan*. Serdang: Universiti Putra Malaysia.
- Roslan, A. H. (2014). Kompetensi Guru Bukan Opsyen Yang Mengajar Kemahiran Teknikal Di Kolej Vokasional Negeri Pahang.
- Shullman, L. S. (2013). Those who understand: Knowledge growth in teaching. *The Journal of Education*, 193(3), 1-11.
- Mohamed Yusof, A., Mohd Ali, M., & Mohd Salleh, A. (2013). Pendidikan vokasional pelajar berkeperluan khas ke arah memenuhi pasaran pekerjaan. *Proceedings Of The International Conference on Social Science Research*. 1189–1196.