

Career Interest for Students with Special Needs: A Systematic Review

^{*1}Zuraini Zakaria, ²Aliza Alias and ³Manisah Mohd Ali

Abstract--- This systematic review is focused of career interest for the students with special needs that based on previous studies conducted with the collection of several empirical studies from 2010 to 2018. This study used three main data sources which are E-Journal UKM online, Google Scholar and ScienceDirect that based on search using keywords Career Interest, Career Theories, Career Models, Special Needs Students and Person with Disabilities. A total of 20 journal articles were identified to answer the questions and objectives of the study. This study consists of students with special needs in various categories including learning disabilities, physical disabilities, visibility and hearing impaired. This study aims to identify strategies to nurture career interest in special needs students as well as to research the theory and model of career selection used to support special needs students' career development. The findings showed that parents' involvement and teachers' support are the most influenced special needs students' career interest compared to other factors. The findings showed that there were several theories and models used to support the special needs students' career development which are Holland's Theory of Personalities and Environment (1997), Super's Theory (1990), Krumboltz's Theory (1996), Social Cognitive Career Theory (1994) and Self-Efficacy Theory of Bandura (1986). One of the implications in this study is expected to help students with special needs, parents and teachers in fostering career interest in line with their capacities and capabilities that have been identified.

Keywords--- Systematic Reviews, Career Selection Factors, Special Needs Students, Career Interest, Career Theory, Model Career Model and Person with Disabilities.

I. INTRODUCTION

Career interest in accordance with the capacities and capabilities of special needs students is a very complex because it is difficult to determine (Nor Wahiza, 2011; Riduwan et al., 2016). Career interest is a key focus in the special need student's career selection process so that it is in line with their ability. Typically, special needs students show a slow career progression. They have a limited level of career understanding due to the inability experienced (Millner et al., 2015). As a result, the special needs students were faced with a problem in the next career determination affecting their future (Davies et al., 2018).

The special need students' physical problem is has a low level of social interaction and lack of vocational interest. Their ability seen low and their needs were often ignored (Yamamoto & Alverson, 2017). Career selection among special education pupils are something difficult. The special need students have to make a right decision before choose the study field again. Wrong in decision making will affect their career choice in the future. In addition, before pursuing

the field of vocational studies, the special need students does not sit for psychology and inventory tests that determine the study field that suits the interests and their career tendency.

In Malaysia, the Integrated Curriculum of the Secondary Standard Curriculum for Special Needs Student was implemented in stages begins in 2017 to meet the needs of new policies under the Malaysian Education Blueprint 2013-2025 (PPPM). It is considering the appropriate and relevant education of special needs students that is capable of pursuing vocational skills subjects. Besides, it also provides spaces and opportunities for special needs students to follow the vocational skills subjects. This effort is aligned with the aspiration of the Ministry of Education so that special needs students is recognized by the external agencies as well as certified by Ministry of Education in enhancing special needs students' marketability.

Ministry of Education also provided various initiatives to special needs students in order to obtain qualified education and skills which is helping these groups toward their career preparations. Accordingly, Ministry of Education has developed and introduced a special education curriculum, established a Vocational Special Education Secondary Schools (SMPKV), drafting Standard Based Curriculum for Secondary Schools (KSSM) and introduce to The Secondary Industry Apprenticeship Program (PIMA) to complete the special needs students' preparation towards a real career environment. Therefore, students with special needs should be given the opportunity to choose their education that is suitable for their interest and ability so that they can plan a suitable career after the completion of the study. Hence, it is parents and teachers' responsibility to nurture the interest of special needs students' career in line with their potential themselves.

1) Literature Review

Nowadays, the special needs students faced a problem of difficulty in selecting the appropriate career field based on their interest and tendency (Riduwan et al., 2016). Typically, special needs students have a problem of consistency between career interest and their working environment. Less than 50% of the special needs students were employed in jobs which are matched their Holland theme ability profiles (Turner et al., 2011). Therefore, the selection of field studies needs to be given priority among special needs students as they are faced with academic, social and behavioural problems.

The selection of educational field is an important aspect for special needs students to create their future career. It is not something easy to involve the continuous development process that is centered on the search, obtaining and processing personal information, employment, education, lifestyle and the role of a person (Riduwan et al., 2016). It is not denied that special needs students also have interests, dreams, aspirations and career desires such as other normal individuals. Due to lack of ability, these groups have been marginalised and they missed opportunities in pursuing their dream career.

In addition, most of employers are considering that the people with disabilities are lacking off skills as well as they have to deal with legal issues (Kocman et al., 2017). Employer's discrimination on people with disabilities caused negative views of the people with disabilities workers or employment applicants among people with disabilities (Draper et al., 2010; Ang et al., 2013; Santilli et al., 2014). Besides, the problem or unemployment factor is not merely due to

the lack of employment but it is due to the matching of the skills required by the labour market with the skills that are owned by technical and vocational graduates (Krysta et al., 2015).

Based on career issues for the people with disabilities, the difficulty of gaining employment opportunities in the industry sector encompasses physical skills and capabilities as well as negative stigma in society, the employers and others. They should be given opportunities to choose a career path based on career polls which are consistent with their capabilities and interests before moving into real world jobs.

2) Career Interest for Special Needs Students

The process of career selection among special needs students is complex. A lot of past studies explain the factors that affect the selection process of study and career among the special needs students. However, the selection of the field of study among these special needs is less systematic (Riduwan et al., 2016).

In addition, the parents' attitudes which are not pay full attention to their children with disabilities and underestimate the ability of their children (Lindstrom et al., 2011). The same goes for teachers who often face problems and challenges in completing the special needs students in career preparation due to their own attitude because of the limitations of their vocational training learning, lazy, fast feeling bored, problematic in emotions and behaviours (Noraini et al., 2015).

3) Career Theory and Model

Career issues are widely discussed by career and psychological figures such as Parson, Holland, Gottfredson, Super, Roe, Krumboltz, Savickas and so on. However, many theories and career studies stated that there was a significant relationship between individuals and the environment in the selection of career (Holland, 1973; Lanivich et al., 2010; Zunker, 2006).

In this systematic review, there are several theories and work models will be discussed that is the Holland's Theory of Personalities and Work Environments (1997), Super's Theory (1990), Krumboltz's Theory (1996), Social Cognitive Career Theory (1994) and Self-Efficacy Theory of Bandura (1986).

The first theory discussed was the Holland's Theory of Vocational Personalities and Work Environments (Holland, 1997). This theory focuses on consistency among the needs of work with interest and the work tendency of a person can drive the individual to work better and enhance their job satisfaction. The construct that appears in the Holland's career theory is a tool that can identify the vocational behavior of a person (Nota et al., 2010; Turner, 2011). Most studies agreed that this theory has a good correspondence among employee career interest with employment needs that include job satisfaction, stable career path and commendable achievement (Turner et al., 2010).

Researchers explain how special needs students choose their career based on Holland's six personality types which are Realistic, Investigative, Artistic, Social, Enterprising and Conventional (RIASEC). This theory is thought that each individual is in accordance with one of the six personalities. Holland (1987) believes that a person will choose a career in which is suitable to their environment. Thus, special needs students should look for a suitable environment with their skills and abilities and gain a fun career experience.

While the second theory discussed was Social Cognitive Career Theory (SCCT). This theory is also the choice of most researchers as it contributes to career development in various cultures (Nota et al., 2010; Gibbons et al., 2015). Social Cognitive Theories proved to be an important role to the problematic learning community to build self-trust to form their career interest (Nota et al., 2010). According to SCCT, the status of the disabled included in the learning experience would affect the personal career of special needs students through self-efficacy and trust revenue (Lent et al., 2014). There are several key barriers in the special needs students in career issues including the limited number of career information, placement at the centre of study and a minimum career, social discrimination making it difficult to make a decision related to a career (Gibbons et al., 2015). Special needs students should be given greater opportunities in overcoming their career development issues by focusing on a broader career understanding. Special needs students should be exposed to a more sophisticated career approach to overcome their unique barriers (Gibbons & Border, 2010). SCCT provides a broader understanding of special needs students' careers by focusing on individual capabilities as well as overcoming obstacles for success.

The third theory discussed was the Super's Theory (1990). This theory stresses on self-concept in his career selection. He assumed that teenagers' individuals would build their career concepts first by expanding their career ideas. Super (1957) emphasizes on how an individual is choosing a career field that reflects himself through the application of self-concept. This clearly indicates that the individual will endeavour to choose a career field that reflects the characteristics found in themselves including in terms of interest, value and personality of the individual. Super (1990) states that the satisfaction of career is influenced by the extent that the individual has been successful through the proper career path to express interest, abilities, the personality held by the individual in making a career selection and selected career patterns will match the individual personality features.

The fourth theory was the Krumboltz's Theory by Mitchell and Krumboltz (1996) which discussed on career selection process. Special needs students faces limitations in their career selection. Special needs students typically develops ideas that are unrational and outside their thinking boxes. This will affect their career selection negatively. Furthermore, the low self-concept and community's view against their lack off ability distrust the process of making career decisions.

The fifth theory is the Bandura's Self-Efficacy Theory 1977 which is the most researchers choice by using and extending self-efficacy theories for vocational behavior. Studies on typical individuals and disabled individuals indicate that the expected effectiveness of self-efficacy may influence career options, work performance, persistence in career and success. In addition, research proves that self-efficacy supports social effectiveness through its aspirations and academic achievement. This is because the theory believes that the higher the self-esteem, the higher the self-confidence for effectiveness of revenue (Bandura, 1986).

In conclusion, these five theories play their own role in the development and selection of special needs students careers. Most of the theories used are emphasising on self-esteem and high self-concept in individuals to create a career maturity in acquiring a career that is appropriate and meet individual personal needs. The Holland's Career Theory emphasizes on the consistency of career interest with a working environment that is suitable for special needs students.

4) Factors that Influence Special Needs Students' Career Interest

In this systematic review, there are two factors chosen in order to influence the special needs students' interest, which are parents' involvement and teachers' support.

5) Parents' Involvement

Generally, parents play a big role on the development and interest of children's career (Michael & Cinamon, 2013). Parents' involvement affected and clearly seen in the conduct of parents and family in nurturing the development, values, attitudes and children self-independence concept (Gibbons et al., 2015). Teenagers are often seen free from parental influences when growing up but they continue to rely on parents in their career development instead (Hirano et al., 2016). Research shows that teenagers continue to discuss their career issues and problems with their parents (Hirano et al., 2017). This proves that parents play a great influence on their education and career transitions (Latashia, 2012; Raya et al., 2013).

This career progression is seen to be great influence to parents with disabled children. This is because special needs students are confronted with greater challenges in the development and selection of their careers (Millner et al., 2015). Special needs students showed slower career growth rates compared to their typical counterparts. Similarly, the research on factors that contributed to the development of special needs students are quite less and require greater exploration. Studies show that influence of parental involvement on special needs students' careers is larger when compared to typical individuals (Cheung & Pomerrantz, 2012).

Parental support is found to be impacted by students' career. By specifics, parental action such as creating a home academic environment, their expectation of the students' schooling, values and behaviour of their own parents, and the provision of children's learning needs as well as promoting the activity that stimulates the child's career (Berzin, 2010) is some of the support that affects students' careers. Parents play an important role in nurturing the interests and career direction of their children. This is because parents have become a major source in their teaching and learning process since infants to an adult. The family environment, effectiveness of education and guidance of the indirect influence of the social and moral functions of the Children (Raya et al., 2013).

6) Teachers' Support

The teachers' support elements also played an important role in fostering the career development of special needs students (Fan & Williams, 2010; Cavendish & Espinosa, 2013; Cavendish, 2017; Cavendish et al., 2019). This is because the special needs students who received their teacher support could attract a career interest by delivering information and knowledge about the career path in the school (Holwerda et al., 2015; Rowe et al., 2015; Morningstar et al., 2015). This is because teachers' support involves a positive and self-evaluation assessment and career expectations are an important variable in determining the success of special needs students and affecting their career interest (Newman et al., 2011; Lesgold & Welch-Ross, 2012).

Furthermore, career education received in schools through the support of teachers can help create career prospects in leading a proactive, independent and satisfying life among the special needs students (Zhang et al., 2018). Through the increase in self-awareness, special needs students began to realize that they had the potential to develop their career

dreams fully. Previous studies are also the definitive that positive interaction of teachers contribute to the motivation and performance of the school. Children and teenagers who are appreciated by the teacher will show positive emotional and behavioural engagement in school (Roorda et al., 2011; Fu et al., 2020). For instance, the social and emotional support for pupils are conducive to enhance the students' involvement in the school. The taste of students in classes and schools can be strengthened if the teacher is paying attention and concern towards their pupils (Allen et al., 2013).

II. METHODOLOGY

The systematic reviews of this study were aimed at reviewing the factors that encourage career interest to be nurtured among students of special needs based on theories and models of studies used. Therefore, researchers need to consider several aspects such as early screening, deep reading as well as analysing and translating information in whole (Bowen, 2009). The information searched is related to the study was obtained through three main data sources which are E-Journal UKM online, Google Scholar and ScienceDirect based on ten-year searches from 2010 to 2018. Researcher used career interest, career theory, career model and special needs students' career progression as the keywords.

Table 1: Search of Information

<i>Search of Information</i>	<i>Keywords “Career Selection Factors + Special Needs Students + Career Interest + Career Theory + Career Model + OKU (Person with Disabilities)”</i>	<i>Number of Selected Journals</i>
1. E-Journal UKM online	11,002	5
2. Google Scholar	17,800	8
3. ScienceDirect	380	7
Total	29,182	20

Based on Table 1, it is found that a total of 29,182 has been obtained through three sources which are E-Journal UKM Online, Google Scholar and ScienceDirect. The findings showed that there were 20 selected journal articles, 5 of the E-Journal UKM Online, 8 of Google Scholar and 7 of the ScienceDirect. The article selections are also based on some of the following criteria:

1. Articles that have been published between 2010 and 2018.
2. Search sources are from the source of journals, articles, reference books, websites, theses, acts and reports.
3. Career interests discussion among special needs students.
4. Study of factors that encourage career interest to be nurtured among special needs students based on career theory or career model.

This study intends to:

- 1) Identify the strategies to nurture career interest among special needs students.
- 2) Explore the factors that encourage career interest in special needs students based on theory or model of study.

1) Sample

The sample consists of students with special needs in various categories including learning disabilities, physical disabilities, visibility and hearing impaired.

2) **TOOL**

This systematic review is focused of career interest for the students with special needs that based on previous studies conducted with the collection of several empirical studies from 2010 to 2018. This study used three main data sources which are E-Journal UKM online, Google Scholar and ScienceDirect that based on search using keywords Career Interest, Career Theories, Career Models, Special Needs Students and Person with Disabilities. A total of 20 journal articles were identified to answer the questions and objectives of the study.

III. RESULTS AND ANALYSIS

Based on Table 2, a total of 20 articles related to selection and career interest were elected. There are 12 survey-shaped reviews, a systematic review of the study, a cross survey, two qualitative studies, two paper reviews and a longitudinal study. Meanwhile, the respondents of the study comprises individuals of various defects including individual learning problems, intellectual problems, hearing problems and physical problems. In addition, there are various theories and models as well as instruments used in this study to gauge variables according to the research objectives that were built.

No.	Title/Year	Journal/ Author	Method/ Instrument	Research Findings
1	Career Interests and Self-Efficacy Beliefs Among Young Adults with an Intellectual Disability 2010	Journal of Policy and Practice in Intellectual Disabilities Nota, Ginevra & Carrieri	Survey Review My Future Preferences (Soresi & Nota, 2007)	Special needs students' problematic learning needs to build self-confidence in moulding their career interest.
2	The Role of Guidance Counsellors in the Career Development of Adolescents and Young Adults with Special Needs 2011	British Journal of Arts and Social Sciences Lazarus & Ihuoma	Concept Paper	Special needs students should be identified in their requirements including exploring skills and vocational fields, interests, setting up career goals and career decision-making skills.
3.	The Role of Self-Efficacy on Job Readiness s and Career Choice among People with Intellectual Disability in Singapore 2011	Journal of the American Academy of Special Education Professionals Li & Goh	Survey Review Career Choice Inventory (CCI) - Stock, Davies, Secor, and Wehmeyer (2003)	Self-efficacy for person with disabilities need to be developed to help them improve their preparations and career opportunities.
4	Towards Developing a Theoretical Framework on Career Success of People with Disabilities 2011	Asian Social Science Nor Wahiza	Review Paper	An important factor in career success for special needs student is an individual perception that is suitable for needs, requiring appropriate perception, self-assessment and a comprehensive career environment.
5	Career Interests and Self-Estimated Abilities of Young Adults with Disabilities 2011	Journal of Career Assessment Turner, Unkefer, Cichy, Peper & Juang	Survey Review ACT Unisex Interest Inventory-Revised (UNIACT-R) - ACT Inventory of Work-Relevant Abilities (IWRA)	Consistency between job employment and work ability will help an individual to gain satisfaction in a job.

6	Five-Factor Model of Personality, Work Behavior Self-Efficacy, and Length of Prior Employment for Individuals with Disabilities: An Exploratory Analysis 2012	Rehabilitation Counseling Bulletin O'Sullivan, Strauser & Wong	Survey Review NEO-PI-R (Five Factor Model of Personality, Short Form, Revised) – Costa & McCrae, 1992) Contextual Work Behaviour Self-Efficacy Scale (CWBSSES) – Strauser, O'Sullivan & Wong, 2010)	Researchers focus on the barriers of person with disabilities to achieve lower expectations than the typical group's diverse consequences. Therefore, person with disabilities needs to increase self-efficiency and better work results.
7	Dysfunctional Career Thoughts and Attitudes as Predictors of Vocational Identity Among Young Adults with Attention Deficit Hyperactivity Disorder 2013	Journal of Vocational Behavior Dipeolu, Sniatecki, Storlie & Hargrave	Survey Review Career Maturity Inventory- Revised – (Crites & Savickas, 1996) Vocational Identity Scale - Holland, Daiger & Power, 1980)	ADHD students are faced with the difficulty of forming self-image, self-efficiency and world-of-the-job exposure that affects their career development.
8	The Contribution of Perceived Parental Support to the Career Self-Efficacy of Deaf, Hard-of-Hearing and Hearing Adolescent 2013	Journal of Deaf Studies and Deaf Education Michael, Most & Cinamon	Survey Review The Career-Related Parent Support Scale (CRPSS; Turner, Alliman-Brissett, Lapan, Udiipi, & Ergun, 2003) The Career Decision-Making Self-Efficacy Scale (CDMSE) (Fouad, Smith, & Enochs, 1997)	Person with disabilities is confronted with a conflict of career development, constraints in ability and ability and difficulty in identifying career interest.
9	Interactive Effects of Physical Disability Severity and Age of Disability Onset on RIASEC Self-Efficacies 2014	Journal of Career Assessment Tenenbaum, Byrne & Dahling	Survey Review WHO-DAS 2.0 (World Health Organization Disability Assessment Schedule II) LEQ (The Learning Experience Questionnaire) SEQ (The Self-Efficacy Questionnaire) RIASEC Interest	Self-confidence, prediction of outcomes and learning experience to influence the selection of person with disabilities careers by establishing interest and goals to achieve the work objectives.
10.	A Social-Cognitive Exploration of the Career and College Understanding of Young Adults with Intellectual Disabilities 2015	Professional School Counselling Gibbons, Justina, Cihak, Wright & Mynatt	Qualitative Study Interview protocol	Special needs students have to identify self-efficacy, barriers and support in determining career goals such as career knowledge, parental support and support from the school.
11.	Career-Related Parental Support of Adolescents with Hearing Loss: Relationships with Parents' Expectations and Occupational Status 2015	American Annals of the Deaf Michael, Cinamon & Most	Survey Review The Future Perceptions Scale (Michael, Most & Cinamon, 2011a). The Career Decision-Making Self-Efficacy (CDMSE)	Help the person with disabilities to overcome their career problems by identifying their future perception and self-efficacy.

			(Fouad, Smith, & Enochs, 1997). The Self-Efficacy for the Management of Work-Family Conflict Scale (Cinamon, 2006).	
12.	Personality-Major Congruence among the Hearing-Impaired Students in Malaysian Polytechnics 2015	Asian Social Science Samsilah, Che Rozaniza, Maria Chong dan Soaib	Survey Review Holland Self Directed Search Form E (SDSE)-Holland	Hearing students have difficulty in choosing the academic field they are interested in causing them to choose areas that are not in line with their interest and kind of personality.
13.	Exploring Person-Environment Fit Towards Enhancing Hearing Impaired Students Academic Achievement in Tertiary Education 2016	Journal of Education and Social Sciences Che Rozaniza, Samsilah, Maria Chong & Soaib	Systematic Reviews Three P-E-Fit proposed which are personality-major Fit (P-M Fit), demands-abilities Fit (D-A Fit) and needs-supplies fit (N-S Fit) perception.	Inconsistency in the personal features with the student environment requires them to renovate and vary with social, emotional and academic.
14.	Organizational career development initiatives for employees with a disability 2016	The International Journal of Human Resource Management Kurkarni	Depth interview Interview questions related to the career issues for person with disability.	Disabilities are often associated with low salaries, lack of emphasis on safety, training and participation in decision-making and negative attitude to work and organizations.
15.	Selection of educational fields for students with special needs learning 2016	Journal of Advanced Research in Social and Behavioural Sciences Riduwan, Mohd Hanafi & Noraini	Survey Review Career Interest Inventory – Examination Board	The investigative field becomes a choice of special needs students while realistic fields contribute to the future of their career.
16.	The Impact of Disability on Vocational Interest 2016	Science International Lahore Tahira, Syeda Farhana, Atiqur, Nighat & Amir	Cross Survey Vocational Interest Scale (Holland, 1985)	Special needs students' physical problematic have low and less social interaction in career interest because of their limited physical ability.
17.	Examining Impacts of Mindfulness in Requesting Job Accommodations for Individuals with Disabilities 2016	Rehabilitation Counseling Bulletin Vance, Campbell & Dong	Survey Review MAAS (Brown & Ryan, 2003) PANAS (Watson, Clark & Tellegan, 1998) Situational Self-Efficacy Scale (Rumrill, 1993)	Interests and participation of the person with disabilities in the employment sector can be encouraged by increasing in the group's self-efficacy.
18.	Aiming High, Aiming Low, Not Knowing Where to Go: Career Aspirations and Later Outcomes of Adolescents with Special Educational Needs 2017	International Journal of Educational Research Gutman & Schoon	Longitudinal Study Motivational School (Schoon, 2008) Career Aspirations (Holland, Gottredson & Baker, 1990)	Person with disabilities needs to determine the appropriate strategy in identifying their career aspirations in the early years of teens to be in line with their potential.

19.	Vocational Interests and Job Choices Following an Acquired Disability: Results and Implications of an Idiographic Study 2018	The Australian Journal of Rehabilitation Counselling Athanasou	Idiographic Study Holland vocational interest types (Holland 1997)	The majority of the respondents' physical disabilities have chosen four main domains namely realistic, investigative, artistic and interprising as compared to social and conventional domains.
20.	A Cloud-Supported App for Providing Self-Directed, Localized Job Interest Assessment and Analysis for People with Intellectual Disability. 2018	Advances in Neurodevelopmental Disorders Davies, Stock, Davies & Wehmeyer	Survey Review My Job Guest - Applications developed to identify career interest related activities.	Assessment of vocational interest, skills and needs of employees in accordance with the personal potential of special needs students are important for them to obtain jobs.

IV. DISCUSSION

Special needs students faces various challenges in the development process and their career selection. Their career development process is quite slow when compared to their typical counterparts (Michael et al., 2013) and faces greater challenge in identifying their skills and abilities (Davies et al., 2018). They are also having problem of identifying career interest slowly (Dipeolu et al., 2013) and showed a low degree of career aspirations and having a negative impact on vocational options (Gutman & Schoon, 2017). As a result, special needs students faced unemployment problems and are recruited unfit with their ability (Davies et al., 2018). In order to overcome this problem, special needs students have to increase self-efficacy to encourage their interest and participation in the employment sector (Michael et al., 2015; Vance et al., 2018).

In addition, special needs students were also faced with career attitude and issues in competition to acquire jobs (Kurkarni, 2016; Tahira et al., 2016). Special needs students often has a low self-concept that results in the performance and perception of the affected workplace (Lazmainstream & Ihuoma, 2011). The challenges were also due to the lack of cognitive, physical and psychological (Tahira et al., 2016). However, to inculcate a career interest in the special needs students, there are two factors to be studied which are the involvement of+ parents and teachers support because these individuals are closest to their individual environment. Many researchers have made studies on the importance of parents' support and teachers received consistently to form successful career planning (Metheny & McWhirter, 2013; Raque-Bogdan et al., 2013). The support received from parents could reduce the acceptance of a limited career information among students (Metheny & McWhirter, 2013; Raque-Bogdan et al., 2013).

Based on the findings of the study, most of the support sources received by respondents were from parents and teachers. The support received became a source of strength to special needs students to enhance their self-efficacy. This was also supported by the SCCT Theory that stressed that the support received from the environment could reduce barriers and enhance self-confidence (Lent et al., 1994). It is not denied that parents and teachers have a great impact on the results of the special needs students' career selection by communicating information about his career as well as inculcate a deep career interest in each (Garcia et al., 2015). The exposure of career matters is important in providing information to special needs students to enable them to make appropriate decisions to participate in the career. Furthermore, parents' involvement played a pivotal role in fostering career interest in special needs students since the

early age (Viola & Daniel, 2017; Doren et al., 2012). This is because parents have a great influence in the life of a child (Landmark et al., 2013). Moreover, parenting is also described as a pattern of behaviour in interacting with children. One of the approaches to understanding the concept of mother influences on the development of Children's career (Wang et al., 2014; Cavendish & Connor, 2017).

However, important career interest in the selection of a person's career. This is because career interest should be in line with the ability and potential of an individual is especially among special needs students. Thus, special needs students must plan their career strategy and interest in early teens (Gutman & Schoon, 2017). It is important for special needs students to identify needs, appropriate career perception, increase self-assessment and working environment that matches career interest, this is in accordance with the Holland's Career Theory, individuals need to identify career interest is based on six constructs which are realistic, investigative, artistic, social, enterprising and conventional. But special needs students have failed to identify career interests that are suitable for their potential to them to choose an educational field that is not in line with their abilities, Che Rozaniza et al., 2015). This can be seen when special needs students choose career interest that does not fit their ability (Samsilah et al., 2015; Rohaizat et al., 2016; Athanasou, 2018). Thus, in order to overcome the inconsistency between the characteristics of the personality, the refurbishment and maintenance must be done between the social, emotionally and their education (Che Rozaniza et al., 2016).

V. CONCLUSION

The systematic study has commented on a detailed 20 of the past studies related to the career interest of special needs students from the year 2010-2018. Studies have found that there are five theories and models that are widely discussed in previous studies in relation to the development and selection of special needs students' career which are Holland's Theory of Personalities and Work Environment (1997), Super's Theory (1994), Krumboltz's Theory (1996), Social Cognitive Career Theory (1994) and Self-Efficacy Theory of Bandura. Each of these theories and models is chosen according to the requirement of special needs students in assisting the development of their career. Meanwhile, the factors that influence the most widely studied career interest in the past study are the involvement of parents and teachers' support including the school's teaching. Therefore, researchers will come to the study as a source of reference from the aspect of the population, instrument and research methodology for different samples in order to obtain a more valid data. Researchers can conduct research on the development of special needs students as these studies are quite limited in Malaysia. Other factors that influence career interest and further help the development of special needs students' career can also be studied such as peers and mass media influences.

REFERENCES

- [1] Allen, J., Gregory, A., Mikami, A., Lun, J., Hamre, B., & Pianta, R. (2013). Observations of effective teacher-student interactions in secondary school classrooms: Predicting student achievement with the classroom assessment scoring system-secondary. *School Psychology Review*, 42, 76–98.
- [2] Alverson, C., & Yamamoto, S. (2017). Vocational Rehabilitation Employment Outcomes of Individuals with Autism Spectrum Disorders: A Decade in the Making. *Journal of Autism and Developmental Disorders*, 48(1), 151–162.
- [3] Athanasou, J. (2018). Vocational Interests and Job Choices Following an Acquired Disability: Results and Implications of an Idiographic Study. *Australian Journal of Rehabilitation Counselling*, 24(1), 1–11.

- [4] Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 191–215.
- [5] Bandura, A. (1986). *Social Foundations of Thought and Action: A Social Cognitive Theory*. New Jersey: Prentice-Hall.
- [6] Berzin, S. (2010). Educational Aspirations among Low-Income Youths: Examining Multiple Conceptual Models. *Children & Schools*, 32(2), 112–124.
- [7] Bowen, G. (2009). Document Analysis as a Qualitative Research Method. *Qualitative Research Journal*, 9(2), 27–40.
- [8] Cavendish, W., & Espinosa, A. (2013). Teacher preparation for student diversity and disabilities: Changing roles in response to intervention models. Bakken, J., Obiakor, F. and Rotatori, A. (Eds.), *Learning Disabilities: Practice Concerns and Students with LD (Advances in Special Education)*, Bingley: Emerald Group Publishing Limited, pp. 189-205.
- [9] Cavendish, W. (2017). The Role of Gender, Race/Ethnicity, and Disability Status on the Relationship Between Student Perceptions of School and Family Support and Self-Determination. *Career Development and Transition for Exceptional Individuals*, 40(2), 113-122.
- [10] Cavendish, W., & Connor, D. (2017). Toward Authentic IEPs and Transition Plans: Student, Parent, and Teacher Perspectives. *Learning Disability Quarterly*, 41(1), 32–43.
- [11] Cavendish, W., Morris, C., Chapman, L., Ocasio-Stoutenburg, L., & Kibler, K. (2019). Teacher perceptions of implementation practices to support secondary students in special education. *Preventing School Failure, Alternative Education for Children and Youth*, 64(1), 19-27.
- [12] Che Rozaniza, A., Samsilah, R., Maria, C. A., & Soaib, A. (2016). Exploring Person-Environment Fit Towards Enhancing Hearing Impaired Students Academic Achievement in Tertiary Education. *Journal of Education and Social Sciences*, 4(2), 62-68.
- [13] Cheung, C., & Pomerrantz, E. (2012). Why does parents' involvement enhance children's achievement? The role of parent-oriented motivation. *Journal of Educational Psychology*, 104(3), 820-832.
- [14] Davies, D., Stock, S., Davies, C., & Wehmeyer, M. (2018). A Cloud-Support App for Providing Self-Directed, Localized Job Interest Assessment and Analysis for People with Intellectual Disability. *Advances in Neurodevelopmental Disorders*, 2(3), 199-205.
- [15] Dipeolu, A., Sniatecki, J., Storlie, C., & Hargrave, S. (2013). Career Thoughts and Attitudes as Predictors of Vocational Identity Among Young Adults with Attention Deficit Hyperactivity Disorder. *Journal of Vocational Behavior*, 82, 79–84.
- [16] Doren, B., Gau, J., & Lindstrom, L. (2012). The Relationship Between Parent Expectations and Postschool Outcomes of Adolescents with Disabilities. *Exceptional Children*, 79, 7-23.
- [17] Draper, W., Reid, C., & McMahon, B. (2010). Workplace Discrimination and the Perception of Disability. *Rehabilitation Counselling Bulletin*, 55(1), 29–37.
- [18] Fan, W., & Williams, C. (2010). The effects of parental involvement on student's academic self-efficacy, engagement and intrinsic motivation. *Educational Psychology*, 30(1), 53–74.
- [19] Fu, W., Liang, J., Wang, L., Xu, R., & Xiao, F. (2020). Teacher-student interaction in a special school for students with developmental disabilities in Chinese context. *International Journal of Developmental Disabilities*, 2020, 1–14.
- [20] Garcia, P., Restubog, S., Bordia, P., Bordia, S., & Roxas, R. (2015). Career optimism: The roles of contextual support and career decision-making self-efficacy. *Journal of Vocational Behavior*, 88, 10-18.
- [21] Gibbons, M., & Borders, L. (2010). Prospective first-generation college students: A social-cognitive perspective. *Career Development Quarterly*, 58, 194–208.
- [22] Gibbons, M., Justina, H., Cihak, D., Wright, R., & Mynatt, B. (2015). A Social-Cognitive Exploration of the Career and College Understanding of Young Adults with Intellectual Disabilities. *Professional School Counselling*, 19(1), 1096–2409.
- [23] Gutman, L., & Schoon, I. (2017). Aiming High, Aiming Low, Not Knowing Where to Go: Career Aspirations and Later Outcomes of Adolescents with Special Educational Needs. *International Journal of Educational Research*, 89, 92-102.
- [24] Hirano, K., Garbacz, A., Shanley, L., & Rowe, D. (2016). Parent involvement in secondary special education and transition: An exploratory psychometric study. *Journal of Child and Family Studies*, 25(12), 3537-3553.

- [25] Hirano, K., Shanley, L., Garbacz, S., Rowe, D., Lindstrom, L., & Leve, L. (2017). Validating a Model of Motivational Factors Influencing Involvement for Parents of Transition-Age Youth with Disabilities. *Remedial and Special Education, 39*(1),15–26.
- [26] Holland, J. (1973). *Making vocational choices*. New Jersey: Prentice-Hall.
- [27] Holland, J. (1987). Current Status of Holland's Theory of Careers: Another Perspective. *The Career Development Quarterly, 36*(1), 24–30.
- [28] Holland, J. (1997). *Making vocational choices: A theory of vocational personalities and work environments*. Florida: Psychological Assessment Resources.
- [29] Holwerda, A., Brouwer, S., de Boer, M., Groothoff, J., & Van der Klink, J. (2015). Expectations from Different Perspectives on Future Work Outcome of Young Adults with Intellectual and Developmental Disabilities. *Journal of Occupational Rehabilitation, 25*(1), 96-104.
- [30] Humphrey, N., Barlow, M., Wigelsworth, A., & Squires, G. (2012). The role of school and individual differences in the academic attainment of learners with special educational needs and disabilities: A multi-level analysis. *International Journal of Inclusive Education, 17*(9), 909-931.
- [31] Kocman, A., Fischer, L., & Weber, G. (2017). The Employers' perspective on barriers and facilitators to employment of people with intellectual disability: A differential mixed-method approach. *Journal of Applied Research in Intellectual Disabilities, 31*(1), 120–131.
- [32] Krumboltz, J. (1996). A learning theory of career counseling. In Savickas, M. & Walsh, W (Eds.), *Handbook of Career Counseling Theory and Practice*. Davies-Black Publishing, pp. 55–80.
- [33] Krysta, J., Krysta, K., Zawada, K., Cubala, W., Wiglusz, M., & Jakuszkowiak-Wojten, K. (2015). Development of Vocational Training Systems for Patients with Intellectual Disability in Poland. *Psychiatria Danubina, 27*(1), 401–407.
- [34] Kulkarni, M. (2016). Organizational career development initiatives for employees with a disability. *International Journal of Human Resource Management, 27*(14), 1662–1679.
- [35] Landmark, L., Roberts, E., & Zhang, D. (2013). Educators' belief and practices about parent involvement in transition planning. *Career Development and Transition for Exceptional Individuals, 36*, 114-123.
- [36] Lanivich, S., Brees, J., Hochwarter, W., & Ferris, G. (2010). P-E Fit as moderator of the accountability – employee reactions relationships: Convergent results across two samples. *Journal of Vocational Behavior, 77*(3), 425–436.
- [37] Latashia, L. (2012). *The Impact of the Family Influence and Involvement on Career Development*. Orlando: University of Central Florida.
- [38] Lazarus, K., & Ihuoma, C. (2011). The Role of Guidance Counsellors in the Career Development of Adolescents and Young Adults with Special Needs. *British Journal of Arts and Social Sciences, 2*(1), 51- 62.
- [39] Lent, R., Brown, S., & Hackett, G. (1994). Toward a Unifying Social Cognitive Theory of Career and Academic Interest: Choice and Performance. *Journal of Vocational Behavior, 45*, 79-122.
- [40] Lent, R., Morrison, A., & Eseofor, I. (2014). Chapter 7: The career development of people with disabilities: A social cognitive perspective. In David R. Strauser (Ed.), *Career Development, Employment, and Disability in Rehabilitation: From Theory to Practice*. New York: Springer, pp. 113–124.
- [41] Lesgold, A., & Welch-Ross, M. (2012). *Improving adult literacy instruction: Options for practice and research*. Washington DC: National Academies Press.
- [42] Li, J. Y., & Goh, L. (2011). The Role of Self-Efficacy on Job Readiness s and Career Choice among People with Intellectual Disability in Singapore. *Journal of the American Academy of Special Education Professionals, 120*-138.
- [43] Linstrom, L., Doren, B., & Miesch, J. (2011). Waging a Living: Career Development and Long-Term Employment Outcomes for Young Adults with Disabilities. *Council for Exceptional Children, 77*(4), 423–434.
- [44] Ang, M. C., Ramayah, T., & Vun, T. K. (2013). Hiring Disabled People in Malaysia: An Application of the Theory of Planned Behavior. *Journal of International Social Research, 6*(27), 50-64.
- [45] Metheny, J., & McWhirter, E. (2013). Contributions of social status and family support to college students' career decision self-efficacy and outcome expectations. *Journal of Career Assessment, 21*(3), 378–394.
- [46] Millner, U., Rogers, E., Bloch, P., Costa, W., Pritchett, S., & Woods, T. (2015). Exploring the work lives of adults with serious mental illness from a vocational psychology perspective. *Journal of Counselling Psychology, 62*(4), 642-654.
- [47] Michael, R., Most, T., & Cinamon, R. (2013). The Contribution of Perceived Parental Support to the Career Self-Efficacy of Deaf, Hard-of-Hearing, and Hearing Adolescents. *Journal of Deaf Studies and Deaf Education, 18*(3), 329–343.

- [48] Michael, R., Cinamon, R., & Most, T. (2015). Career-Related Parental Support of Adolescents with Hearing Loss: Relationships with Parents' Expectations and Occupational Status. *American Annals of the Deaf*, 160(1), 60-72.
- [49] Mitchell, L., & Krumboltz, J. (1996). Krumboltz's learning theory of career choice and development. In D. Brown, & L. Brooks (Ed.), *Career Choice and Development*. California: Jossey-Bass.
- [50] Morningstar, M., Lombardi, A., Fowler, C., & Test, D. (2015). A College and Career Readiness Framework for Secondary Students with Disabilities. *Career Development and Transition for Exceptional Individuals*, 40(2), 79-91.
- [51] Newman, L., Wagner, M., Knokey, A., Marder, C., Nagle, K., Shaver, D., Wei, X., Cameto, R., Contreras, E., Ferguson, K., Greene, S., & Schwarting, M. (2011). The post-high school outcomes of young adults with disabilities up to 8 years after high school. A report from the National Longitudinal Transition Study-2 (NLTS2) (NCSE 2011-3005), California: SRI International.
- [52] Noraini, A., Mohd Hanafi, M. Y., Abang, A. D., & Nur Aishah, 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.
- [53] Nor Wahiza, A. W. (2011). Towards Developing a Theoretical Framework on Career Success of People with Disabilities. *Asian Social Science*, 7(3), 62-70.
- [54] Nota, L., Ginevra, M., & Carrieri, L. (2010). Career Interests and Self-Efficacy Beliefs Among Young Adults with an Intellectual Disability. *Journal of Policy and Practice in Intellectual Disabilities*, 7(4), 250-260.
- [55] O'Sullivan, D., Strauser, D., & Wong, A. (2012). Five-Factor Model of Personality, Work Behavior Self-Efficacy, and Length of Prior Employment for Individuals with Disabilities. *Rehabilitation Counselling Bulletin*, 55(3), 156-165.
- [56] Raque-Bogdan, T., Klingaman, E., Martin, H., & Lucas, M. (2013). Career-related parent support and career barriers: An investigation of contextual variables. *Career Development Quarterly*, 61(4), 339-353.
- [57] Raya, A., Ruiz-Olivares, R., Pino, M., & Herruzo, J. (2013). A Review about Parenting Style and Parenting Practices and Their Consequences in Disabled and Non-Disabled Children. *International Journal of Higher Education*, 2(4), 205-213.
- [58] Riduwan, I., Mohd Hanafi, M. Y., & Noraini, A. (2016). Pemilihan Bidang Pendidikan bagi Murid Berkeperluan Khas Bermasalah Pembelajaran. *Journal of Advanced Research and Social and Behavioural Science*, 3(2), 152-161.
- [59] Roorda, D., Koomen, H., Spilt, J., & Oort, F. (2011). The Influence of Affective Teacher-Student Relationships on Students' School Engagement and Achievement. *Review of Educational Research*, 81(4), 493-529.
- [60] Rowe, D., Mazzotti, V., Hirano, K., & Alverson, C. (2015). Assessing Transition Skills in the 21st Century. *Teaching Exceptional Children*, 47(6), 301-309.
- [61] Samsilah, R., Che Rozaniza, A., Maria, C. A., & Soaib, A. (2015). Personality-major congruence among the hearing impaired students in Malaysian polytechnics. *Asian Social Science*, 11(26), 337-346.
- [62] Santilli, S., Nota, L., Ginevra, M., & Soresi, S. (2014). Career adaptability, hope and life satisfaction in workers with intellectual disability. *Journal of Vocational Behavior*, 85(1), 67-74.
- [63] Super, D. (1957). *The psychologist of careers*. New York: Harper & Row.
- [64] Super, D. E. (1980). A life-span, life-space approach to career development. *Journal of Vocational Behavior*, 16(3), 282-298.
- [65] Tahira, J., Syeda, F. K., Atiq ur, R., Nighat, G., & Amir, A. Q. (2016). The Impact of Disability On Vocational Interest. *Science International Lahore*, 28(4), 107-111.
- [66] Tenenbaum, R., Byrne, C., & Dahling, J. (2013). Interactive Effects of Physical Disability Severity and Age of Disability Onset on RIASEC Self-Efficacies. *Journal of Career Assessment*, 22(2), 274-289.
- [67] Turner, B., Betz, N., Edwards, M., & Borgen, F. (2010). Psychometric examination of an inventory of self-efficacy for the Holland Vocational Themes using item response theory. *Measurement and Evaluation in Counseling and Development*, 43(3), 188-198.
- [68] Turner, S., Unkefer, L., Cichy, B., Peper, C., & Juang, J. (2011). Career interests and self-estimated abilities of young adults with disabilities. *Journal of Career Assessment*, 19(2), 183-196.
- [69] Vance, S., Campbell, A., & Dong, S. (2016). Examining Impacts of Mindfulness in Requesting Job Accommodations for Individuals with Disabilities. *Rehabilitation Counselling Bulletin*, 61(2), 78-89.
- [70] Viola, M., & Daniel, N. (2017). Parental Support in Career Development of Youths with Intellectual Disabilities in Selected Skills Training Institutions in Zambia: Are Parents Practitioners? *International Journal of Humanities Social Sciences and Education*, 4(11), 15-25.

- [71] Wang, M., & Eccles, J. (2012). Adolescent Behavioral, Emotional, and Cognitive Engagement Trajectories in School and Their Differential Relations to Educational Success. *Journal of Research on Adolescence*, 22(1), 31–39.
- [72] Wang, M., Hill, N., & Hofkens, T. (2014). Parental Involvement and African American and European American Adolescents' Academic, Behavioral, and Emotional Development in Secondary School. *Child Development*, 85, 2151–2168.
- [73] Zhang, J., Yuen, M., & Chen, G. (2018). Teacher support for career development: an integrative review and research agenda. *Career Development International*, 23(2), 122–144.