



EXPLORING CAREER CRYSTALLIZATION AMONG INDONESIAN STUDENT IN MALAYSIA

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Abstract: Industry Revolution 4.0 is acquiring numerous progressions to the world and one of the transformations is on the future workplace. Hence, students will be largely affected and have a big responsibility to adapt and survive the changes. As mentioned in Super's theory, students must have some abilities during a certain period. And in light of Super's career life span theory, students have to achieve their career crystallization. Ironically many students, be that as it may, did not meet the ability on crystallization sub-stage. That is the reason a large number of students getting jumbled between their education background and career later on. This study aimed to investigate vocation crystallization Indonesian students in Malaysia. The case study was used which involved a semi-structured interview and the participant is a student who is studying at the University of Malaya. This investigation indicated that during crystallization sub-stage there are three significant things which are crystallization conduct, resources career information, and determining career choice. Alongside students themselves, schools and counsellors are required to assume a key role in guaranteeing this to happen.

Keywords: *career crystallization*

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INTRODUCTION

In this era, many challenges that students have to face not only obtaining education in schools or universities yet the challenges continue until working life. One of the challenges is the implementation of Industry Revolution 4.0 (IR 4.0) which can be marked by the complex interaction of IT system with a machine and human system (Felipe, 2018). In general, IT system and Artificial Intelligence (AI) are beneficial as it can speed up works or even perform jobs

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that human beings are not able to carry out but with the widely used of internet, it has changed or disrupted the workplace scenario.

As we can see the emergence IT and AI have created a variety of new jobs that are not available previously, such as e-entrepreneur, app developer, digital marketer, drone pilot, video blogger, food blogger, an influencer on Instagram and the other social media-related jobs. In contrast, it also created other damages when robots replacing human beings at workplaces which giving limitation for people to choose their jobs. Consequently, the current undesirable trend that hits globally where scarcity of jobs available for new graduates. At the same time, a large number of workers needing to switch occupations when automation is adopted rapidly. This gives more problem to countries with a big population, for instance, China, India and Indonesia. Data from Statistics Indonesia, the country that is profoundly focusing on IR 4.0, showed that 6.87 million people were unemployed in 2018 and the figure of unemployment rate from university graduates was increased (Badan Pusat Statistik, 2018).

It will be a more serious issue later on the off chance that we can't see this issue inside and out. This issue resembles the tip of an iceberg phenomenon that is little at the top yet a major issue covered up beneath. Unemployment has happened to new graduates due to many factors and one of the factors is the incompatibility of jobs between students' qualifications and those jobs offered in the market. and those on the market. They do not fit the qualifications of the graduates. According to Idham et al., (2014) job mismatch has a significant relationship with unemployment among graduates in Malaysia. Also graduate's skills and personalities one of the factors that lead to unemployment (Mohamed, 2004). To the extent of interviewing unemployed people with a researcher is concerned, they did not get a job due to lack of understanding during the school career choice process. They have picked majors that can offer more extensive chances to enter colleges and universities; rather than thinking about future needs, accessible future innovation and technology, compatible personality and so on. In line with a survey that was conducted by Supriatna (2020), it showed that 72% (108 students) either they have a choice to pursue their study but still not sure or they do not know where they will continue their study after school. It reveals that students are vulnerable and need guidance from a counselor.

In this situation, students must be more concerned and serious about their future career path. Students are the future generation and the future of our society, thus, more attention should be paid to them. Not only do they need to be trained for gainful employment, but they should also be prepared to lead. At the same time, students must aware of the learning process at school and gain school's experiences for getting information and better preparation to plan the future (Watson & McMahan, 2005).

Students cannot be left alone struggling with their circumstances without the support of people around them, such as parents, friends, teachers and counsellors. Parent expectations and guidance, in particular, can be an important support system for children. The reason is that parental expectation and role model influence career aspiration and educational decisions to reach children's goals (Gibson, 2005).

LITERATURE REVIEW

The wide contribution of career development has been given by Donald Super (1957, 1969) with his colleague Ginzberg. Nevertheless, Super's theory is more comprehensive and complex which included several aspects such as social, development and psychology (Noah, 2006). Besides, Super's theory has been one of the most impactful and visible in vocational theories of the 20th century (Borgen, 1991) as he introduced the longitudinal Career Pattern Study. Despite this study has begun in 1957 and still in the process of analysis, he has evolved a complex model of career development that has stimulated a great deal of research and produced concepts and instruments of value to career counsellors (Yost & Corbishley, 1987).

Super has been felt in love and curious about his field, making him continue to study the theory of career development. He explained his theory to the Psychology Counseling Division of the American Psychological Association. Since then he has developed and refined his theory successively. It was remarkable as he investigated and discovered something new relating to real-life phenomena, their eventual theoretical implications, and the application of his work in counselling (Hartung, 2013; Herr, 1997; Savickas, 1997).

Super's explained development stages of career consists of five stages which are growth (ages 0 to 14 years), exploration (ages 14 to 25), establishment (ages 25 to 45), maintenance or management (ages 45 to 65),

and disengagement (over age 65) (Hartung, 2013; Yost & Corbishley, 1987). Every stage has a specific purpose. In this study, the stage will be focused on exploration phase which included crystallization as a core.

Crystallization, as mentioned above, is one of the sub-stages of exploration which is from the age of 14 to 18 years old. Crystallization in career development means students generally have a specific field of what they want or like. Thinking about the reality in careers life after living school always dominate the student's mind. At this sub-stage, there is also a selection of a field of study (Sumari et al., 2015). On the other hand, in the crystallization sub stage, students must have a plan to where they will pursue their study and formulate ideas about work that appropriate for him or herself. The crystallization sub-stage can occur during the fourteen to eighteen despite it can happen in any ages (Seligman, 1994).

Besides, crystallization is the phase of clarifying what people want to do for their future career. They learn about positions at the entry-level that might be ideal for them, and also learn the required skills of the jobs. Applicable to this stage is the recognition of skills, interests and values. Job experience and knowledge of the job help to narrow the individual's choices. When a person changes fields, as an adult may do not at any time, he or she likely to recycle through this stage to reexamine interests, abilities, and values (Sharf, 2016).

According to Super et al., (1957) on classic research, 15 to 17 years old are usually the tentative period of this sub-stage. Based on his assessment the first sub-stage where students start to explore and understand about themselves, aware more about the world of work out there and what they want and aim to do in their career life happens during the high school years.

Super (1963) regarded crystallization as the most important career development task of the adolescent years during 14-18 years old and described that process as involving attitudes, behaviours, and characteristics as follows:

1. Awareness of the need to crystallize
2. Use of resources
3. Awareness of the factors to consider in career planning
4. Awareness of contingencies that may affect goals
5. Differentiation and clarification of interests and values
6. Awareness of present-future relationships
7. Formulation of general career preferences
8. Consistency of preference

9. Possession of information about career preferences
10. Planning for the preferred career
11. Wisdom of the preference

METHODOLOGY

Extreme case sampling was used as a participant is a student who has the required status or experience and shows extreme characteristic (Creswell, 2012). As regards to that characteristics, the participant was selected since he is a university student who has passed the senior high school. It means that he can respond to this study and also he has the advantage to receive in-depth and rich information.

To discover findings for this study, a case study is an appropriate design to looking for. The design, however, will use term instrumental case study regarding John W. Creswell. Creswell said that instrumental case study is a design which is conducted by the researcher with a specific issue (Creswell, 2012). This study has a specific issue in which the researcher will examine the exploration of career crystallization.

Based on the research question, semi-structured interview protocols was developed to gain information from the participant to know the career crystallization. The interview was done by up close and personal in one of fast food restaurant in Kuala Lumpur. The purpose of the study and the interview was explained to the participant so he was able to participate voluntarily. In this study, one researcher was involved in the interview session as well as in the data analysis.

Before collecting data, the researcher has prepared an interview guideline and it was done in a semi-structured interview with the participant's consent. The interview roughly took around 45 minutes and it has been recorded. Additionally, the voice recording was interpreted and analyzed.

FINDINGS AND DISCUSSIONS

Background of Participant

The boy who was interviewed is a Bachelor student at the University of Malaya. He is from Indonesia and went to 1st State Senior High School in Depok, West Java. He is the sixth child from seven kin and an introvert person yet has vast knowledge and experience. During high school, he was

exceptionally dynamic. He was chosen as a student representative and organized many programs and projects. Besides, he also joined an NGO program called Pengajar Jelajah Nusa (PJM) and went to Natuna in Kepulauan Riau as one of the coaches who trained the neighbourhood network there.

Pengajar Jelajah Nusa is an achievement for him that changed his discernment toward teaching where he got more enthusiasm to investigate and explore the education world. Two weeks in a remote zone in Natuna made him began to mindful the significance of education and giving back to society. So, Pengajar Jelajah Nusa has opened his psyche to focus on education field and to keep upgrading it.

In Malaysia, he engaged with a few volunteering activities, for example, English language instructor for the Indonesian workforce (Tenaga Kerja Indonesia) and deliberate educator for Indonesian students 7 to 15 years of age who live in Old Klang Road. He is also active in a few associations and internship programs. He has been a President of Indonesian Students Association (PPI) in the University of Malaya and a member of the Strategic Studies Department of Indonesian Students Association (PPI) Malaysia. Moreover, he was an intern in the Business Development Department at Marketing and Recruitment Center (MRC) at his university. He was responsible to lead research to make a database for Indonesian prospect students.

Crystallization Behavior

As a student with full of curiosity, he satisfied his aspiration about career through several techniques. One of the methods he used his family to gain information about his future career. Being the second youngest in the family he has many brothers and sisters that he can ask for information. Since they are older than him, thus, he believed his older siblings have much experience that can help him to obtain information about the career. Therefore, he posed many questions to his older siblings. He also asked his family members and relatives which field that they think would be better for him to seek after for his degree. Business interests are already in him because his parents have been in business since they were married. He was essentially inspired by business, yet he just comprehended the essentials of business.

Therefore, asking his family members is a key to trigger him to seek after his investigation in business study. He did some exploration on the

business course offered by local Indonesian and abroad universities after he got a lot of information. Besides, he also compared business fields with different fields he should think about to advance his insight. The comparison covered tuition fees, university reputation, offered subjects, and future career opportunities. He then applies it to his temperament as he decides to pursue business studies and for further justification, he asked his family again as to whether the business course suits his character and personality perfectly or not.

Apart from that, he also had a business experience when he was in high school. He arranged a big event called Ajang Kreasi Siswa Siswi (AKSI) with his friends. They had to collect large funds because they required a large amount of budget for the event. They created a project or activity that called Dana Usaha to pursue and gain sponsorships and funds to raise money. On that project, they sold a variety of foods and merchandise for the event.

Resources Career Information

During his experimentation and quest for career choice, curiosity emerged, and this common feeling usually occurs in adolescence. Regarding definition from Susan Engle, curiosity is the urge to explain unexpected (Engel, 2015). Curiosity seems to be an invitation or encouragement to do something that has never been there and to find the answer to what is boggling. Despite curiosity is a positive thing, it can be negative as well. The study from Hsee & Ruan, (2016) examined that when people facing something uncertain and curious, they will act to resolve the uncertainty even if they expect negative consequences.

In this situation, the respondent of this study used his curiosity in positive ways. First of all, he asked someone who is in his inner circle who are his family. He asked many questions to his older siblings to gain comprehensive career information. Due to the wide age gap between him and his siblings, it is as a good opportunity for him to learn many things from them based on their experiences in career life. The age gap is almost 13 years so his brothers and sisters are mature enough to be able to advise about career.

Nevertheless, the information from his brothers and sisters did not make him complacent. He realized that he must keep exploring to get a variety of information. So, he strived to look for another way. He searched about career information from all available platforms such as education fair, university

websites, youtube, instagram, and so forth. He also compared and analyzed from one to another information for enriching his knowledge and capacity towards career information.

Ideally, he should get information about career from his counsellor in school, instead, he did not get sufficient guidance and information. Indeed, a plethora of information came from his family, own research and experience. He informed that counsellor is responsible to many students at school so the counsellor cannot focus on one to one counselling. He also did not get support and a word of wisdom from his school, especially from the homeroom teacher as he had to pick different major as what he expectation might have been. He was put in natural science class supposedly he should be in a social science class since he wanted to do business study at university.

Determining Career Choice

After getting enough information, he analyzed and investigated everything that he had. Even though he got numerous information from his family, it didn't mean he was guided straightforwardly. His family just gave information and opinion that he needs and let him choose which major is appropriate. Starting from exploring and gathering information then detailing out the information, he finally could decide bachelor of business administration as his major. He took entry examination for several Indonesian universities, for example, Institute Technology Bandung, University of Indonesia, and the University of Gadjah Mada, however, he just passed at one college which is University of Gadjah Mada (UGM). Before that, he has already been accepted by the University of Malaya (UM) in Malaysia. He was somewhat confounded and confused to pick between UGM or UM. After he asked his family viewpoint and numerous contemplations, he picked Bachelor of Business Administration at the University of Malaya as his destination for the first degree.

Meanwhile, before he arrived at this stage, he did everything without anyone else help from filling up the application form until getting an acceptance letter and applying for a visa. He did all independently with no aides from his family or others. Despite his family still support on money matters.

DISCUSSION

The adolescent starts limiting choice in the exploration stage based on personal interests, skills and abilities. An occupational choice is made in the stage of crystallization. Followed by the specification stage where the person pursues the requisite educational experiences to achieve his career goal.

We are at the forefront of an Industrial Revolution 4.0 today. Developments in genetics, artificial intelligence, robots and others related to artificial intelligence are all building on and amplifying each other, to name only a few. This will lay the foundation for a more complex and systematic transition than anything we have ever seen before.

The world of work is changing. As entire industries adjust, most occupations are undergoing a fundamental transformation. Many jobs which exist today will become automated by artificial intelligence in the future. While some jobs are threatened by redundancy and others grow rapidly. There is also a change in the skill sets required to do existing jobs.

According to the World Economic Forum, 65% of children entering primary school today will be employed in jobs that do not yet exist. McKinsey Global predicts that almost half of all workplace activities could be automated in the future. Therefore students need to understand and determine their future career path since in school.

Donald Super stated that in making a vocational choice individuals are expressing their self-concept, or understanding of self, which evolves. People seek career satisfaction through work roles in which they can express themselves, and further implement and develop their self-concept. Super's finding is very critical and very much useful to be implemented presently toward the era of the Industrial Revolution 4.0. He claimed that the exploratory phase (age 15-24) is characterized by a preliminary period of narrowing but not finalizing choices. And in this exploratory stage, there is crystallization, specifying, and implementing.

Amongst all these stages the essential process that students need to apply is crystallization. From the interview done to an Indonesian student in the University of Malaya, it could be seen how crystallization has eased the process of narrowing down and determining the future career of the student.

With or without realizing it, he has used many of the techniques of Super to decide what he wanted to study in a university and what he wanted to

pursue his future career. He has a good awareness of the need to crystallize when he did his research to find information about his future study field and career path. He used a variety of resources such as his siblings, relatives and own experience to understand more about his future career. He is also aware of the factors to consider in career planning which is the suitability of his future studies and career to his personality.

Despite knowing that he wanted to do business study in university he still compares it with other fields to understand contingencies that may affect his goals. By doing an extra mile to decide what type of business studies he wanted to pursue it shows that he distinguished and explained his interests and values. Indeed, he already had general career preferences and consistency in business due to his parents owned a business. With all the information that he gathered and possessed, he could easily plan for the preferred career and understand his preference.

All of the above has proven that there are two things about Super's Theory. Firstly, all the methods suggested by Super are really useful in determining one's future career field; and secondly, Super's theory and methods are becoming more relevant to students as a preparation for Industrial Revolution 4.0 to understand and determine their imminent prospective career.

However as described by Super, the crystallization processes involving attitudes, behaviours, and characteristics. Therefore, the ability of students to understand the process of crystallization depends on the students themselves. Generally, there are different categories of students: the ones who know what they want, the ones who leave everything to the last minute and the ones who are confused with life and yet do not take any action to solve it. Preparing for the future from the first day may not be a priority for many school children as they do not aware of how important it is. Each student should, however, start planning for the future early if possible. It includes being in school and keeping in the awareness of what's going on, networking with teachers and pursuing professional experiences — all this, of course, is in addition to learning and completing the studies. As a student, you want to stay on top of what needs to be done to create a positive outcome.

The respondent falls into the first category – he knows what he wants and stays at the top to achieve his aspiration. He was involved in school and engaged in education-related activities of NGOs at a young age. Based on his

accomplishments, he was an above-average student and with goodwill and determination, he was aware of the importance of crystallization.

The interesting question now is how about those students who are in the second and third category – who leave everything to the last minute; and who are confused with life yet do not take any action. How educators or school counsellors can prepare, guide and advise those students to determine the right future jobs? Some may argue this may seem like an impossible task to add to an already overworked and, too often under-resourced, teaching staff. As what had happened to the respondent when he was in high school, he did not get much-needed information from his school counsellor who was supposed to guide and educate him about his future career path. Not only that, but he was also put in the wrong class by the homeroom teacher and school who was not in line with his future intended studies and career.

This is a severe matter needs to be tackled immediately or else many students will experience mismatch career with industry needs. Perhaps through strategic planning the responsible authority and institution should implement below-recommended action plans:

- (a) improve counsellor's role and knowledge in career counselling
- (b) enhance students' ability to understand the idea of crystallization
- (c) set key index performance for educational institutions to assure that their teachers, staff and students will be able to adapt to what happens next, as well as to what happens thereafter.

There is still light at the end of the tunnel to resolve this anticipated problem if the responsible authority and institution take this matter seriously and implement the abovementioned plans of actions accordingly.

CONCLUSION AND RECOMMENDATION

In summary, with rapid changes and developments in technology and the workplace, students need to understand and focus on their future careers since they are in high school. Schools and counsellors are expected to play a key role in ensuring that this happens. Regrettably, the counsellors do not work and perform up to students' and parents' expectation. This could be some reasons for example counsellors have not been up to date with changes in technology and potential workplaces, and also because counsellors are already overworked and exhausted and could not have had time to direct students one by one.

What could be done is for the responsible institutions' and schools' management to deal with overworked and understaff issues in schools. So that counsellors have time to provide comprehensive guidance and advice to each student. Counsellors also should be sent more to conferences and colloquiums on Industrial Revolution 4.0, Artificial Intelligence, Workplace Transformation, and others. As for students, schools and counsellors must guide and raise awareness in students about the importance of the crystallization process. As the crystallization process involved attitudes, behaviours and characteristics, schools and counsellors must find the best way to inculcate these core competencies in every student. And to make all this success it should be guided and monitored by the responsible institution and authority.

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