Career Development Interventions in Technical and Vocational Schools in Malaysia

Dr. Abdullah Mat Rashid, Dept of Science and Technical Education, Universiti Putra Malaysia

ABSTRACT

Career counselors as well as teachers in technical and vocational schools played important role to helping students regarding personal, academic and career options. They should be aware and understand the trend of employment in ensure their students more likely to be success to plan postsecondary alternative or in workplace. Career development intervention is refers to any activity that empowers people to cope effectively with career development tasks. This research is conducted to identify the list of career development interventions implemented in technical and vocation schools in Malaysia. In addition, it also compare list of career development intervention implemented between technical and vocational school with other types of school. The results show that not more than 6 percents from overall list implemented in technical and vocational school. In addition, the finding also shows about 35 percents types of career development interventions implemented in technical and vocational school compare to other types of school. Four recommendations are made in enhance career development interventions in technical and vocational school in Malaysia.

INTRODUCTION

Historically, formal technical and vocational education in Malaysia was introduced by the British in 1897 to train Malay youths as mechanics or fitters to manage the railway lines (Lourdesamy, 2000). However, it was not until 1906 when the first public technical school was opened to train technicians to work in various government departments that vocational training began to have impact (Marzuki & Som, 1999). In 1926, the first trade school was opened in Kuala Lumpur, thus marking the beginning of public career and technical education in Malaysia. A major change in the technical and vocational educational program occurred in 1965 when the comprehensive education system was introduced. The new system, which rose the school-leaving age to 15, was designed to change the form and content of secondary-level education by expanding and diversifying the range of courses offered. Students received general education with a vocational or technical emphasis in industrial arts, agriculture science, commercial studies, and home sciences (Marzuki & Som, 1999).

In 1987, a new technical and vocational education system was introduced. Under this system, career and technical students are given a choice: either to enroll in a vocational program or in a skills training program. In the vocational track, students are given emphasis on academic subjects with the purpose of providing them a better foundation should they decide to continue their higher education in technical colleges or polytechnic without affecting vocational skills development at the lower level. In the skills training track, students are given more time and emphasis on skills training and development as required by industry.
In 1996, the Ministry of Education made a dramatic shift to upgrade technical and vocational education, not only because of the requirements of the economy but also to increase more science and technical human resource (Economic Planning Unit, 2001). In this regard, 22 secondary vocational schools were converted into secondary technical schools for the 1996 session. In 2000, the conversion increases of secondary vocational schools to secondary technical schools were completed (Economic Planning Unit, 2001). This conversion expanded the technical stream in the career and technical education and at the same time maintained the vocational and skill streams previously offered in the secondary vocational schools to accommodate low achievers in the lower secondary examination. The technical stream in secondary technical schools produced students with a strong foundation in technical and science subjects while the vocational and skill streams prepared students with the basic skills for employment. At the same time, engineering technology and technical drawing subjects were also introduced in selected academic secondary schools. The move was to open up opportunities for academic students who inclined to be in technical areas as well as to prepare them to continue their studies in various science and technical related disciplines at the post secondary level (Economic Planning Unit, 2001). Again, in 2010, the Ministry of Education decided to rename all upgraded vocational school back to vocational school. With the development of innovation led economy, the technical and vocational education will focus on knowledge and higher order thinking skills in addition to the technical skills.

Career development interventions will be needed for providing assistance to individuals attempting to deal more effectively with the influence of work. The students, the adults, the unemployed, the underemployed, and communities are each confronted with the work issues that have significant implications for their lives. All these clients will have to be guided and provided with the appropriate skills and knowledge, and at the same time inculcated with the right attitudes and values necessary to face the challenges of a rapidly changing environment. Quality career development interventions define as effectively counsel, advise, and educate students about relationships among school experiences, career development, and the changing workplace (Feller, 2003). In Malaysia, little is known about the success of career development intervention among technical and vocational school students. Research finding shows that most of career counselors in Malaysia does a lot of introductory career development intervention to their students but no activities on work based interventions (Mat Rashid, Bakar, and Asimiran, 2008; Mat Rashid & Bakar, 2010). In addition, Wan Ahmad (2007) stated that the percentage of skills mismatch between types of training received in training institution and job choosen after graduated is high.

Preparing Students for Meaningful Careers and Life Roles

One of the challenges in the innovation led economy is to help students develop education strategies that will allow them to meet academic requirements, develop soft skills, as well as attitudes that are typically learned in applied contexts. Changes in job structure, family norms, and increasingly mobile technologically enhanced society are among the reasons contributed to this challenge (Feller, 2003). Carnevale and Desrochers (2003) suggested that one of the strategies to cope with this challenge is teachers will need to advocate high academic standards for all students as well as new formats for learning both in and outside the classroom.

Most of developed countries like US and Australia respond adequately in preparing students for meaningful careers and life roles. In US, the National Occupational Information Coordinating Committee (NOICC) had developed a National Career Development Guidance (NOICC, 1992) for educators and career counsellors to systematically construct a variety of career development interventions for high
school students. These guidelines are as follows (Niles & Harris-Bowlsbey, 2002): 1) Self-knowledge (understand the influence of a positive self-concept, skills to interact positively with others, and understanding the impact of growth and change); 2) Educational and occupational exploration (understanding the relationship between educational achievement and career planning, understanding the need for positive attitudes toward work and learning, skill to locate, understand, and interpret career information, skills to prepare to seek, obtain, maintain and change jobs, and understanding how societal needs and functions influence the nature and structure of work); and 3) Career planning (skills to make decisions, understand the interrelationship of life roles, understanding the continuous changes changing male/female roles, and skills of career planning).

Beside technical skills and academic achievement, other personal development in students such as moral, ethical, affective growth, continues learning attitudes are also equally important in career preparation. Students not only need to know what they want but they have to open to any new information and make the career choice meaningful to them. To be an effective teacher, they should not just focus on their listed duty and responsibility on what they should do but bear in mind that their overtly and unconsciously holding assumption and perceptions will have significant impact on student’s development (Feller, 2003).

Chang (2004) stated that a degree is no longer an assurance for getting a job. According to report on Graduate Recruiting Companies Views (2004), degree classification was rate lower than worker skills and attitudes by companies when they recruited employee. Employee’s verbal communication skill, enthusiasm, work experience, written communication skill, problem solving skill, team work, and transferable skill was rated higher than the worker degree qualification (Sign, 2004).

Employers prefer to recruit graduates who have at least one year working experience, high team work, understand the demands of employers, able to work independently and with less supervision. In addition, they also required more knowledgeable workers who are multi-skilled, multi-tasking, bilingual and familiar with various aspects such as companies act, labour and industrial relation laws, basic account and marketing, computer, ICT, and statistics (MEF, 2004; Lee, 2004). Multi-skilled means graduate who possess multiple skills such as technical skill, communication skill, thinking skill, planning and administrative skill, and skill in ICT.

Employer is looking for sophisticated skills relevant to industry context which are normally not taught in formal education. All these are very important for survival in borderless and competitive workplace environment. For example, workers who have good communication skill are able to present their ideas and explain particular issues in more constructive manner as well as resolve problem effectively and help the companies to stay competitive; for those who are proficient in English language are also able to communicate well with colleagues, customers, and suppliers in foreign country. In future employment trend, employability and marketability of workers are more significant than academic qualification. Employee’s knowledge, skills, experience, and attitudes are all contributed to an employee’s performance and value.

**Career Development**

Career development refers to the lifelong psychological and behavioral processes as well as contextual influences shaping one’s career over the lifetime span (Niles & Harris-Bowlsbey, 2002). While Saviks (2003) stated that career development as one that fosters vocational development and work adjustment of individuals at each life stage by engaging them in life planning aimed at psychological integration of individual’s abilities, interests, and goals with the work roles structured by the community.
and occupations organized by companies. The changing of work as well as demographic demands students to develop beyond basic academic foundation to include interpersonal, occupational, and attitudinal skills for secure a good paying job.

Changes in the economy have had dramatic impact on the way students becomes adults, and have led to misconceptions and unintended consequences for them (Rosenbaum & Person, 2003). The three revolutionary transformations included: 1) the labor market has dramatically increased its skill demands, augmenting the earnings advantages for college graduates, but reducing the real earning for those with less education, 2) college become much more accessible, and community college – a minor factor in the prior generation – radically increased enrollments, and 3) community colleges opened their doors to admit all interested students, regardless of their prior academic achievement (Aspen Institute, 2002; Rosenbaum & Person, 2003). These important transformations need career development counselors whose job is to provide information and guidance to students. Feller (2003) noticed that disconnection between student’s courses of study or job pursuits and existing job opening business needs often play out as dissatisfaction with career choices and outcomes. Likewise, these will allow students to plan and act more effectively for success in school and beyond. Career development counselors will impact student options for their journey to the future.

Changes of the workplace extend the career development not only to match personalities to occupations but enhancing the journey of students, adults, and people in organizations with facilitating, coaching, and ground breaking emotional intelligence (Feller & Whichard, 2005). Career counselor for the 21st century, with a range of training and credentials, are employed in varied setting like schools, colleges, business organization, community agencies assist diverse client in manifold context, and display multicultural competence and promote social justice (Saviks, 2003). The opportunities and choices opened for career development counselor to intensify efforts to use new tools that exploit the potential of information and communication technology to provide career services across the life cycle. Furthermore, to make connections among lifelong learning, development plans, and improve performance in the continuing changing workplaces of the client.

Workplace Trends

In this innovation led economy, work is defined not by occupational titles or categories, but by skills and values. Therefore, each student should prepare for meaningful career and life roles. Effective teachers should help students make inform career choices and gain necessary employability and self management skills. Jarvis and Keeley (2003) called this as career management. It is defined as help an individual to develop the skills needed to make an appropriate choice in all aspects of their lives. In addition, drawing from recent research and literature and opinion, Lynch (2000) point out one of the four purposes for high school career and technical education appear to be for up to the first five to ten years of the 21st century is providing career and exploration training. To succeed, teachers and career counselors need to understand how changes in the economy affect skills requirements on the workplace of the knowledge era. A new paradigm is needed to help shape the journey of students.

Analyzed a direction of technical and vocational education related with the innovation led economy, give an idea about the need for all students to have increasingly higher level of academics because investment in education and further training will continue to survive in the innovation led economy. Lynch (2000) suggested four purposes of technical and vocational education for up to five to ten years of the 21st century. These includes: 1) providing career exploration and planning, 2) enhancing academic achievement and motivation to learn more, 3) acquiring generic work competencies and skills useful for
employment, and 4) establishing pathways for continuing education and lifelong learning. Furthermore, Lynch (2000) prevail six components underlay that four purpose in technical and vocational education. The components are high school major, contextual teaching and learning, work-based learning, authentic assessment, career academic, and technical prep. These six components are focused on improvements in students’ learning, achievement, motivation, and performance to prepare them well for postsecondary education and for the new workplaces.

Plank (2001) discussed two important components about technical and vocational education; 1) an upgrade academic core particularly for at-risk students, and 2) career and technical education major is designed and implemented is important to success. The first component calls for upgraded academic core with content and achievement standards comparable to college prep or honors courses including math, science, and English. The second component refers to four credits in a planned, coherent sequence of career and technical education courses supplemented by two related credits, including computer literacy skills. These sequential occupational courses integrated with a program of sequential academic courses appear to have positive effects on students’ educational, attitudinal, and employment outcomes. Feller (2003) believed that career and technical education with the inherent focus on matching student career exploration interests with workplace needs, will lead to the rest of education into new leadership and prominence.

According to International Labor Organization (2005), Malaysia value added per worker is still low as a result of differences in sectoral activities, potentially lower skills levels and less advanced technologies. The government has provided and continues to provide an effective mechanism for employers to upgrade workers’ knowledge and skills and attain productivity increase through continuous training and retraining. To maximize the investment in human capital, employers should also promote lifelong learning apart from workplace learning. In this regard, the government insists on active private sector participation and involvement is crucial to compliment the government’s efforts to produce more knowledgeable workers and enhance productivity. The abilities of workers to unlearn and learn will be crucial not only for productivity improvements, but also as new processes and products. This is because workers’ innovative, ingenuity and capacities for solving organizational problems will be greatly enhanced. Ultimately, learning organizations with a culture of lifelong learning will be the key to success in this innovation led economy. The principal thrust of a nation’s sustainable growth and the strength of economic resilience of the knowledge economy are human ingenuity and skill and a commitment to innovation through research and development (Drucker, 1998). In this regard, efforts will be undertaken to develop an efficient and responsive education and training system to meet the demand for a knowledgeable and highly skilled labor force that is equipped with positive values and attitudes.

In line with the liberalization in the provision of education and training, the participation of the private sector, particularly at the tertiary level will be intensified. The private sector will be encouraged to set up more new institutions and campuses, and conduct more twinning program with local public universities and foreign institutions of higher learning as well as expand their distance learning program. In addition, local public and private universities will be encouraged to develop centers of excellence comparable with those in reputable foreign universities.

In the future workplace, the workers are organized into small cross-functional teams rather than assigned to a unique task. Job rotation is encouraged so that the workers will understand the whole production process. In addition, communication channel is horizontal to improve adaptability and reactivity. In order to reduce chronic excess employment and idle time, workers must be multi-task and multi-competent. The workers for the future must be multi-task (they must help or replace their overload
teammates) and multi-competent (they must ensure cleaning, simple adjustment, and repair of their machines without waiting for indirect workers). These new workplaces require intensive training and new compensation schemes such as pay for skills and incentives for groups.

Career development interventions will be needed for providing assistance to individuals attempting to deal more effectively with the influence of work. The students, the adults, the unemployed, the underemployed, and communities are each confronted with the work issues that have significant implications for their lives. All these clients will have to be guided and provided with the appropriate skills and knowledge, and at the same time inculcated with the right attitudes and values necessary to face the challenges of a rapidly changing environment. Rapid technological changes and increased globalization also has exacerbated the challenges associated with the delivery of quality technical and vocational education in Malaysia. Technical and vocational education is critical to Malaysia’s industrial development.

Teachers and career counselors who understand how changes in this innovation led economy affect skill requirements on the job can help ensure all students receive educational preparation and guidance they need for their future. Thus, this research is to investigate the career development interventions implemented in technical and vocational schools to prepare students for the future workforce.

**METHOD**

The participants were selected using a cluster sampling procedure. There are three steps in choosing the participants. Firstly, the 12 states in Peninsula Malaysia are grouped by their location. One state would be randomly selected from each group. Secondly, the researcher selected 50% of districts from each selected state. Finally, the researcher randomly selected target schools from each district for a participant in the study. The participants were teacher and had extensive experience in career development field. A survey of checklist consists of 30 items on career development interventions. A checklist was design to determine the career development interventions implementation by each participant. The list was adapted from a taxonomy developed by Dykmen, Herr, Ingram, Pehrsson, Wood, and Charles (2003) and the Manual to implement counselling and guidance service in secondary school (Ministry of Education, Malaysia, 2004).

**FINDINGS**

A total of 104 teachers were selected to be in this study. However, due to time constraints approximately 60% of selected sampling involved in this study. The participants included 39 teachers from national daily school, 4 teachers of science school, 9 teachers from technical and vocational school, 4 teachers from religious schools, 3 teachers private school and 3 from MARA Junior Science College (MRSM).

Table 1 shows a percentage of career development interventions implemented in different types of school. There are only 12 out of 62 teacher (career counsellors) conducted more than 20 types of interventions in their schools which are 5 from daily schools, 3 from science schools, 2 from religious schools and 2 from MRSM.
Table 1: Percentage of Career Development Interventions between Technical and Vocational School with Other Type of Schools

<table>
<thead>
<tr>
<th>Type of School</th>
<th>Total</th>
<th>Percentage of CDI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical and Vocational</td>
<td>14</td>
<td>35.33</td>
</tr>
<tr>
<td>Daily</td>
<td>16</td>
<td>40.23</td>
</tr>
<tr>
<td>Science</td>
<td>23</td>
<td>58.33</td>
</tr>
<tr>
<td>Religious</td>
<td>20</td>
<td>50.00</td>
</tr>
<tr>
<td>Private</td>
<td>10</td>
<td>25.64</td>
</tr>
<tr>
<td>MRSM</td>
<td>23</td>
<td>58.12</td>
</tr>
</tbody>
</table>

Inferential statistic was used to find out the differences between career counsellors from technical and vocational schools with other types of school in implemented career development interventions. The test of homogeneity of variance was done and the results showed that $p = 0.21$ which meant that the sample is not normally distributed. Therefore, the non-parametric test, Kruskal-Wallis was used in analysing the result. The result indicated that $\chi^2 (5) = 21.85, p = .001$, there is a significant difference in implemented career development interventions among career counsellors of technical and vocational school, daily school, science school, religious school, private school and MRSM. This finding revealed that science school and MRSM career counsellors conducted more types of career development interventions for their students comparing with other types of school career counsellors.

Examine thorough the result shows that only one technical and vocational school implemented career development interventions about 50 percents, others are less than 50 percents as in Table 2.

Table 2: Percentage of Career Development Interventions Implemented in Technical and Vocational School

<table>
<thead>
<tr>
<th>Name of Technical and Vocational School</th>
<th>Total</th>
<th>Percentage of CDI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Batu Lanchang</td>
<td>20</td>
<td>51.3</td>
</tr>
<tr>
<td>Butterworth</td>
<td>18</td>
<td>46.2</td>
</tr>
<tr>
<td>Dungun</td>
<td>18</td>
<td>46.2</td>
</tr>
<tr>
<td>Wakaf Tembusu</td>
<td>18</td>
<td>46.2</td>
</tr>
<tr>
<td>Setapak</td>
<td>17</td>
<td>43.6</td>
</tr>
<tr>
<td>Gombak</td>
<td>15</td>
<td>38.5</td>
</tr>
<tr>
<td>Kajang</td>
<td>14</td>
<td>35.9</td>
</tr>
<tr>
<td>Klang</td>
<td>11</td>
<td>28.2</td>
</tr>
<tr>
<td>Batu Pahat</td>
<td>11</td>
<td>28.2</td>
</tr>
</tbody>
</table>

Table 3 shows the percentage of career development interventions implemented by career counsellors in technical and vocational school. The findings illustrated only 25 types of interventions were implemented by career counsellors. However, the highest percentage is about 6 percents and can be categorized as group career development interventions.

Table 3: List of Career Development Interventions Implemented in Technical and Vocational School

<table>
<thead>
<tr>
<th>Career Development Intervention</th>
<th>$n$</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students club activities</td>
<td>9</td>
<td>5.96</td>
</tr>
<tr>
<td>Guidance lesson on personal/social development</td>
<td>9</td>
<td>5.96</td>
</tr>
<tr>
<td>Career Library/Career resource centre</td>
<td>9</td>
<td>5.96</td>
</tr>
<tr>
<td>Career day/fair</td>
<td>9</td>
<td>5.96</td>
</tr>
<tr>
<td>Career field trip</td>
<td>9</td>
<td>5.96</td>
</tr>
<tr>
<td>School-based enterprise</td>
<td>9</td>
<td>5.96</td>
</tr>
</tbody>
</table>
DISCUSSION

The finding shows the types of career development interventions implemented in technical and vocational schools were be likely relied on large scale program. This is similar to the findings by Leung (2002) who conducted research on career development interventions in Hong Kong. A large scale career development interventions program is involved a large number of students such as student club activities, career day, or career field trip to industries or higher education institutions. Technical and vocational career counsellors put extensive effort which was directed to help and assist student to acquire knowledge about education and career opportunities as well as how to apply it. But there was comparatively less effort which directed toward helping students in self-exploration, preparation for career decision making process as well as the development of necessary skills in order to prepare themselves for multiple roles within the broad industrial sectors.

The findings also revealed that career counsellors in technical and vocational school hold the misconception since students enrolled in their course had choose their career. Rosenbaum and Person (2003) suggested that career counsellors should help students to explore more alternatives, and to do preparation before they are making appropriate and realistic career choice for their future. According to Jarvis and Keeley (2003), career development intervention is not only helping students to make informed career choice but also help them to gain the necessary employability and self management skills.

Individually tailored career development interventions such as individual career map, career interest assessment, or information interviewing were only conducted as and when student required, it was not done voluntarily. Generally, it was uncommon for career counselors to request students to do individual career counseling. The finding shows only small percentage of career counselors had implemented intensive personal and career exploration program for individual student such as personality assessment and career value assessment. Compare to MRSM and science school, technical and vocational school
counselors need to put extensive effort towards helping students in intensively self-exploration and preparation in career decision making process as well as necessary skills. This is critically important in preparing a future workforce for the country. Career development interventions are important regardless of students with good academic performance or students at-risk. If school counsellors are continued to hold the thinking that career development intervention only for good academic performance students to plan for getting into college only, this will not benefit the at-risk students. Teacher or career counsellor will also lose the opportunity to assist them in their career development process. Based on the findings, the following recommendations are made for teacher or career counselors in technical and vocational school in enhancing career development interventions among students:

1. Ensure every student has opportunity and chance to involve in career development intervention such as self-exploration and career exploration as early as possible. Students in school are greatly in need of early assistance in dealing with career development task and exposed oneself to career related information. The career development interventions should be starting as early as in elementary schools and make sure that every student have the chance to get involve with any career development interventions. According to United Stated National Occupational Informational Coordinating Committee (NOICC), school counsellor in elementary schools can assist and guide students in exploring their own interest, skills needed for interact with others, awareness of growth and changes, awareness of the benefits of education achievement, understanding how to make decision and etc (Niles & Harris-Bowlsbey, 2002).

2. Increase awareness among school administrators, career counsellors, and teachers of the importance of career development interventions. Their understanding will bring supports to and drive teacher or career counsellors in implementing career-related program. Thus the career counsellors, administrators and educators’ understanding and recognition of the importance of career development intervention for students’ future career and life roles.

3. Standardize proper career guidance for career development interventions. Current career development intervention program is fragmented and superficial, and it is much different among technical and vocational schools as well as types of school. It is recommended that to perform a comprehensive system review, as well as standardization and supervision in career development intervention implemented by career counsellors.

4. Parents involvement in career development intervention program, for instance through Teacher Parent Association, to share the best practice in helping student making career decision. According to Daggett (2003), the career development intervention not only focuses on students but also for teachers and parents. In Malaysia, parent’s opinion play important role in career development process for students. Moreover, there was less effort in getting involvement from parents, teachers and other stakeholders in student’s career development process. In fact, family members’ influence (Lee, 2001) and teachers’ support (Metheny, McWhirtier & O’Neil 2008) are found to have significant impacted on student’s career planning and expectations. This will ensure parent to be able to develop effective strategies for helping their children making appropriate and satisfying career and education decision.

REFERENCES


