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RELATIONSHIP BETWEEN GENDER AND PERSONALITY TYPE AMONG PURE AND APPLIED SCIENCE AND SOCIAL SCIENCE STUDENTS IN ONE PUBLIC UNIVERSITY IN MALAYSIA

Sousan Naseri¹, Zumilah Zainalaludin²

ABSTRACT

By using programme clusters disaggregated this paper aims to measure the relationship between the level of each personality type and sex of the respondent. The sample was n=416 students from one of the Malaysia national university. Respondents were selected using the Stratified Random Sampling procedure with 35% male, 65% female; 35% Students in the Applied and Pure Science Cluster programme and 65% students in the Social Science Cluster programme. Data were collected through selfadministered questionnaires. The total number of completed questionnaires received was 376, which were analysed using the Chi-Square Test. Each personality type was divided into two levels with an 80% cut-off point. A total score for each personality type $\geq 80\% =$ high level and a score < 80% = low level. The findings show significant relationships between Extraversion Personality Type and Openness Personality Types ($p \le 0.05$) with sex among the respondents in the Social Science Cluster programmes, and Neuroticism Personality Type had a significant ($p \le 0.05$) relationship with sex among the respondents in the Applied and Pure Science Cluster programme. Thus HO5, HO6 and HO9 were rejected, and the findings of this study fail to reject other null hypotheses. In conclusion, the Social Science Cluster male and female respondents show a low level of Extraversion Personality Type with females having a slightly higher percentage than the male respondents; and the male and female students in the Social Science Cluster programme are in the low level of Openness Personality Type with females having a slightly higher percentage than the male respondents. The male respondents in the Applied and Pure Science Cluster programme had a higher percentage (12.9%) in the high level of Neuroticism Personality Type than their female (5.3%) counterparts. The results may be used as guidelines for university management to develop a gender and cluster sensitive programme to assist students in their personality-related problems to enhance their level of employability, and similar studies can be extended to other universities.

Key Words: Personality Type, Gender, Program Cluster, University Students, Employability, Career Development

INTRODUCTION

The personality type is influencing an individual to behave and making decisions. Individuals with different personality types may show differences in behaviour (Oliver & Srivastava, 1999) as well as in choosing a programme at the university level (Ciorbea & Pasarica, 2013; Weisberg, Deyoung & Hirsh, 2012). In addition to the biological characteristics, males and females are different due to various factors, such as personal discipline, thinking method, emotional level, and behaviour, which may lead to a significant gender gap or gender differences (Stumpf et al., 2010) and these differences have strong influenced by the cultural norms and practices of the society in addition to individual personality, all of which influence the individual thoughts, emotions, cognitive skills, behaviour, and action towards something (Daly & Wilson, 1988).

There is a huge gender gap in career choice among males and females in science and engineering related careers (Xie and Shauman, 2003), and there are always fewer females than males (Barres, 2006). Nevertheless, in the Malaysian National University currently is dominated by female students in many programmes (Latifah, 2015). Consequently, in long run, there could be fewer professional males in the job market in the future (Zumilah, Norehan & Faten Bazlin, 2016) or fewer professional because female professionals have many gender obstacles to work.

PROBLEM STATEMENTS

Malaysian fresh university graduates face employability problems concerning their lack of creativity (Giselle & Fay, 2014), inability to meet the industry expectations for example English communication skills (Zumilah et al., 2016) and lack of soft skills (Hairi et al., 2011). It is important to understand the personality of university students in order to design programmes that relate to increase their working competencies as so that they are marketable; for example courses and programs to enhance independent learning, critical thinking, innovative problem solving, and information and digital literacy which are intrinsic to creative behaviour (Allen & Coleman, 2011), and are related to a positive personality.

The significant difference in personality disorders is about major depression. There is also a gender gap in terms of personality disorders, for example, females suffer from body image, eating disorders, and are influenced by sexual relations more than males (Ambwani et al., 2007). This is explained by the Neuroticism Personality Type (NPT), which is more common among females than males (Goodwin & Gotlib, 2004). In long term the individual suffer of NPT may face problem of depression; and it seems that females are at high risk.

According to Salleh (1985) females are facing more problems in career choice than males which may due to many factors; for example female may graduate in masculine program such as Engineering but female may has problem to work as Engineer due to gender issues. As for males they prefer to work with machines and expect high pay whereas female prefers art, music and "personal-social" field such as teaching profession (Mansor, 2001; Khor, 1991 & Mohammad, 1987). In conclusion males prefer masculine sector and female prefer feminine sectors (Nasir, 1985).

A research gap on type of personality among male and female individual needs further study in order to design relevant policies and programs concerning male and female career development especially among university students. Therefore, this paper attempts to answer a research question - Was there any relationship between each personality type and the sex of the respondents by programme clusters disaggregated? The programme clusters concerned in this paper are the Applied and Pure Science Cluster (APSC) and the Social Science Cluster (SSC). The aim of this paper is to measure the relationship between each personality type and the sex of the respondents in the APSC and the SSC respectively. The intention of this paper is to recommend a programme and training that targets university students to assist them to obtain relevant skills and competencies that facilitate their acceptance in the job market or enable them to run a business.

BIG FIVE PERSONALITY TYPE (BFPTs)

Psychologists categorise personality according to type, and different people have different personality types. This paper uses the personality types underlined by Costa and McCrea (1992), which were categorised into 5 categories – Extraversion Personality Type (EPT), Conscientiousness Personality Type (CPT), Agreeableness Personality Type (APT), Openness Personality Type (OPT), and NPT. These personality types comprise the Big Five Personality Types (BFPTs). The BFPTs are commonly used in measuring individual personality types (Costa & McCrae, 1992). Types of personality were developed naturally and experience in learning that have an effect on an individual's personality type (McAdams & Pals, 2006). In the BFPTs, each personality type explains the factors that influence an individual's behaviour; as follows:-

- i) The EPT includes individuals who are excitable, sociable, talkative, assertive and emotionally expressive. High EPT individual is excitable and easily express his or her emotional condition;
- ii) The APT pertains to individuals who are trusting, altruistic, kind, and affectionate. High APT individual is warm, friendly and loving.
- iii) The CPT comprises individuals who are thoughtful, goal-directed, and who have beneficial impulse control. High CPT individual is caring, helpful and kind-hearted.
- iv) The OPT includes individuals who have imagination, insight, intelligence, and who are creative. High OPT individual is understanding, has good intuition and acumen.
- v) The NPT comprises individuals who have unstable emotions, and who are subject to anxiety, moodiness, and sadness. High NPT individual may suffer of depression.

GENDER AND PERSONALITY TYPE

Biological characteristics and social environment may influence male and female to display different behaviours in similar situations as explain in the Evolutionary Psychology Theory of Gender (Daly & Wilson, 1988). For example in the success seeking of males and females and how they present themselves in the community show significant difference (Eagly & Wood, 1999). There are differences in found that age, educational level, and nationality had a significant effect on the personality type of male and female individuals (Feingold and Alan, 1994). In addition are emotions, conflict management style, and self-control, which may also relate to the gender gap in the personality type because females tend to display emotions, such as anxiety, worry, and tender-mindedness, while males are more prone to certain feelings, such as self-confidence and success seeking (Weisberg, Deyoung, & Hirsh, 2012; Stumpf et al., 2010).

The gender gap in personality type was explained by Costa, Terracciano and MacCrae (2001) as follows:

- i) The APT a high score in tender-mindedness attitude is always associated with females.
- ii) The CPT there is only a small gap between males and females with females reporting a higher score for attitudes such as self-discipline than males.
- iii) The EPT there is no huge gap between male and female scores in this personality type. However, females usually achieve high scores in warmness, gregariousness, and positive feeling, while males achieve high scores in assertiveness and excitement seeking.
- iv) The OPT a high score in aesthetics and feelings is associated with females, while a high score for curiosity and imagination is associated with males.
- v) The NPT a high score is usually associated with females, but, sometimes, some attitudes, such as high anxiety and low self-esteem, are associated with males and females.

PROGRAM CLUSTER AND PERSONALITY TYPES

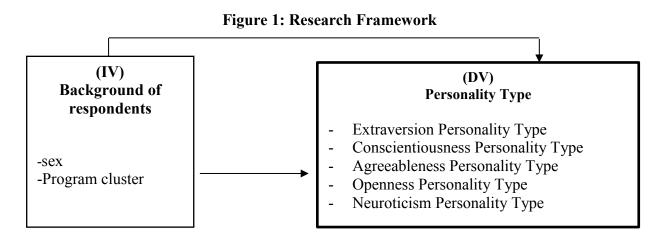
Many factors influence individual's decision on his or her academic program at university level. According to Almlund, Duckworth, Heckman and Kautz (2011), individuals are interested in programmes that fit with their vision of their future occupation. Personality type is one of the important factors in an individual's decision concerning their university academic major or programme clusters. For example a study by Pringle et al. (2010) showed that business students had a high level of EPT and that art students had a high level of OPT (Myers and McCauley as in Pringle et al. (2010). Nevertheless according to

Arcidiacono (2004) cognitive skills play an important role in choosing the programme cluster and that personality type is only associated with this decision.

Vedel (2016) categorized the personality type by the academic cluster. For example arts/humanities students have a high score in OPT, CPT and NPT; economics, law, political science, and medicine students have a high score in EPT, medicine, psychology, arts/humanities, and science students have a high score in APT. The study of Skatova and Ferguson (2014) shows that males choose certain programme clusters for career purposes, whereas females choose certain programme clusters because they want to help other people, or based on personal interests and self-motivation.

RESEARCH FRAMEWORK

The research framework in this paper consists of BFPTs as dependent variable. The independent variables are the sex and programme cluster of the respondents (Figure 1). The dependent variable (DV) is the personality type and is measured using the BFPT questionnaire (John & Srivastava 2009). The relationship was measured between sex and each personality type among the respondents in the APSC and the SSC. The Evolutionary Psychology Theory of Gender by Daly and Wilson (1988) was used to justify sex as the independent variable in this paper. The BFPT by John and Srivastana (1999) underlined types of personality tested in this paper.



Note:

- i) EPTG (Daly & Wilson, 1988) to justify relationship between sex and personality type
- ii) Big Five Personality Types by Costa & McCrae (2009)
- iii) BFPT Questionnaire by John and Srivastava (1999)

METHOD

Population and Sampling

This paper uses an exploratory research design by means of the quantitative data collection method. The questionnaire developed by John and Srivastana (1999) was adopted and adapted in the questionnaire used for data collection reported in this paper. The questionnaire includes the background of the respondents and a scale to measure the personality type according to the BFPT. The background of this paper is students in one of Malaysia's Public Universities in 2013 which consist of 12 APSC faculties and four SSC and all the students in the September 2013-2014 academic calendar was the population of this study. According to the Krejcie Table (Krejcie, 1970), based on a population of N=30,000, the n=380 respondents. Table 1 shows the numbers and percentages of respondents from the Stratified Random Sampling procedure which was over sampled (n=416) in order to get the targeted sample.

| Table 1: Stratified Random Sampling Table (| (n=416) |
|---|---------|
|---|---------|

| No | Faculty | Male | Female | | | Total | |
|----|---------|--------|--------|--------|-----|-------|--|
| | | % | n | % | n | Total | |
| 1 | SSC | 10.10% | 39 | 25.58% | 93 | 35.68 | |
| 2 | APSC | 24.45% | 92 | 40% | 156 | 64.65 | |
| | Total | 34.55% | 132 | 65.58% | 284 | 100% | |

Note:

i) APSC (Applied and Pure Science Cluster), SSC (Social Science Cluster)

ii) Ratio: APSC : SSC = 2:1

- iii) Ratio: Male : female =1:2
- iv) n=380, the n=416 due to stratified random sampling procedure

Null Hypotheses

List of Hypotheses tested were:-

H01: There was no significant relationship between Extraversion Personality Type and sex among Applied and Pure Science Cluster respondents

H02: There was no significant relationship between Conscientiousness Personality Type and sex among Applied and Pure Science Cluster respondents

H03: There was no significant relationship between Agreeableness Personality Type and sex among Applied and Pure Science Cluster respondents

H04: There was no significant relationship between Openness Personality Type and sex among Applied and Pure Science Cluster respondents

H05: There was no significant relationship between Neuroticism Personality Type and sex among Applied and Pure Science Cluster respondents

H06: There was no significant relationship between Extraversion Personality Type and sex among Social Science Cluster respondents

H07: There was no significant relationship between Conscientiousness Personality Type and sex among Social Science Cluster respondents

H08: There was no significant relationship between Agreeableness Personality Type and sex among Social Science Cluster respondents

H09: There was no significant relationship between Openness Personality Type and sex among Social Science Cluster respondents

Ho10: There was no significant relationship between Neuroticism Personality Type and sex among Social Science Cluster respondents

Instrument Development

The questionnaire used in this study consists of two parts; as follows:

- i) Background of respondents includes sex of respondents(male and female), nationality, level (Bachelor, Master or PhD), programme Cluster (APSC or SSC), age, Cumulative Grade Point Average (CGPA), and marital status,
- ii) Big Five personality type (BFPT) developed by John and Srivastava (1999), consists of 46 questions that measure APT, CPT, EPT, OPT, and NPT.

Data Collection

The data was collected through self-administered questionnaire in September 2013-2014 by seven trained enumerators. The questionnaires were distributed in the sampled faculties of the APSC and the SSC. Due to the sensitive issue of personality type to some individuals, the return risk of the survey using the self-administered questionnaire approach, and the number respondents who were expected to decline being involved in the study, the questionnaires were distributed in double number of sampled respondents by the enumerators. The data were collected at the best locations in the sampled faculties by distributing the questionnaires randomly to the respondents.

Each enumerator focused on one location and the first student passing by was selected as the first respondent. If he/she refused, the next student was selected as the respondent. If he/she agreed to answer the questionnaire, then the second student who passed by after the respondent was selected as the second respondent. This process continued until the enumerator collected adequate data amounting to double number of the sample size for that particular sampled faculty. The enumerators waited for the respondents to return the questionnaire to the same location that he/she distributed the questionnaire on an agreed date. The respondents were given a small token of appreciation for their involvement in this study.

Analyses

Data were analysed using descriptive statistics, and the Chi-Square Test using SPSS. First, the data were transferred to SPSS from the questionnaire. The findings in this paper are presented according to the research objective – to measure the relationship between the personality type and sex by programme cluster disaggregated. The Chi-Square test was used to determine any significant relationship between the high and low levels of personality type scores and the sex of the respondents by programme cluster.

FINDINGS

There were n=376 (90.38%) collected data from sampled n=416. The respondents' mean age=23.83 years old (SD =4.11 years old) and that the mean age of the female students is slightly lower (mean=23.61 years old, SD=3.85 years old) compared to that of the male respondents (mean=24.23 years old, SD=4.54 years old). The respondents' mean CGPA=3.48 (SD=0.36). The mean CGPA for females is slightly higher (mean=3.50, SD=0.34) compared to that of their male (mean=3.42, SD=0.39) counterparts. The majority of the respondents are single (90.16%), and only 8.24% are married. A total 1.53% of the respondents were divorced, separated from their spouse or had other type of marital status. Also the majority of the respondents are females (64.90%), Malaysian (82.37%), undergraduate level (73.10%), and from the APSC programme (65.20%). In terms of their counterparts, there are 35.1% males, 17.63% international students, 22% at the graduate level, and 34.80% of the respondents are in the SSC programme.

There are 62.00% female respondents in the APSC programme and 70.20% of the female respondents in the SSC programme, whereas only 38.00% of the male respondents are in the APSC programme and 29.80% are in the SSC programme. The APSC programme is acknowledged to be a masculine cluster, and the SSC is acknowledged to be a feminine cluster (Abouchedid, Kamal, and Ramzi Nasser, 2000). There is also a gender gap in salary between the APSC (high pay) and the SSC programmes (loy pay) (Buser, 2014), and, by frequency, there are many more females in the APSC, which may explain why female workers have 'low pay' in the job market.

Personality Type and Sex by Program Cluster

The personality type percentage scores for each respondent was derived from the total respondent's sum score divided by the maximum possible total score of each personality type.

The Chi-Square Test was used in this paper to measure the relationship between the high and low level of personality type scores with sex by the programme cluster of the respondents.

i) the personality type was categorised into two levels using the 80% cut-off point, which was based on the 5-point Likert Scale (1-strongly disagree; 2-disagree; 3-neither disagree/nor agree; 4-agree and; 5-strongly agree). The scores \geq 80% were categorised as high level and scores <80% were categorised as low level in terms of personality type.

ii) After the categorising process of personality type into two levels and testing the relationship in terms of sex, the EPT and OPT had a significant relationship ($p\leq0.05$) with sex among SSC respondents, and the NPT had a significant relationship ($p\leq0.05$) with sex among the APSC respondents. For other personality types, no significant relationship was obtained (p>0.05) with sex among the APSC or the SSC respondents. Therefore, the list of null hypotheses rejected were as follows:-

H05: There was no significant relationship between NPT and sex among APSC respondents H06: There was no significant relationship between EPT and sex among SSC respondents H09: There was no significant relationship between OPT and sex among SSC respondents

The list of null hypotheses that failed to be rejected were as follows:-

- Ho1: There was no significant relationship between EPT and sex among APSC respondents
- Ho2: There was no significant relationship between CPT and sex among APSC respondents
- Ho3: There was no significant relationship between APT and sex among APSC respondents
- Ho4: There was no significant relationship between OPT and sex among APSC respondents
- Ho7: There was no significant relationship between CPT and sex among SSC respondents
- Ho8: There was no significant relationship between APT and sex SSC respondents
- Ho10: There was no significant relationship between NPT and sex among SSC respondents

In Table 1, only the SSC respondents demonstrate two significant relationships – EPT and OPT – with the sex of the respondents ($p\leq0.05$). The high majority of male (79.50%) and female (79.3%) SSC respondents were in the low level of EPT. The percentage of female respondents is slightly higher for high EPT (20.7%) than their male (20.5%) counterparts. A high score of EPT refers to warmness, gregariousness, positive feeling, assertiveness and excitement seeking. Overall, the majority of the respondents have a low level of EPT, and only around 20% of the respondents have a high level of EPT. A low level of EPT is explained by reclusive, quiet, aloof and cautious, while the high level of EPT refers to attitudes, such as sociable, talkative, friendly and adventurous (John & Srivastava, 1999). These findings may reflect to Asian people which in general are more intrinsic than western people.

The OPT also shows a similar pattern to the EPT, with a high majority in the low level of EPT among the SSC respondents. A high majority of male (94.90%) and female (95.7%) SSC respondents were in the low level of OPT. The percentage of male respondents is slightly higher in the high OPT (5.1%) than their female (4.3%) counterparts. A high score of OPT refers to individuals who have imagination, insight, intelligence and who are creative (Ciorbea & Pasarica, 2013, John & Srivastava, 1999). Nevertheless this paper found that less percentage of high OPT respondents which may reflect to the problem of employability among university fresh graduates in Malaysia.

Table 1: Relationship between Personality Types and Sex of Respondents by Program Cluster Disaggregated

| | т | | SSC | | | | APS | SC | | |
|-----------------|--------|-----------|----------|---------|---------------------|----------|----------|----------|-------------|-------|
| РТ | Leve - | Male | Female | Р | λ^2 | Male | Female | P Value | λ^2 | |
| | 1 | n (%) | n (%) | Value | | n (%) | n (%) | | | |
| low EPT high | low | 31 | 73 | | | 78 | 123 | | | |
| | | (79.50%) | (79.30%) | 0.00 | 0.00 0.986 - | (83.90) | (80.90%) | 0.073 | 0.341 | |
| | high | 8 | 19 | 0.00 | | 15 | 29 | 0.075 | 0.341 | |
| | - | (20.5%) | (20.70%) | | | (16.10%) | (19.10%) | | | |
| low APT-high | low | 34 | 83 | | | 83 | 136 | | | |
| | | (87.20%) | (90.20%) | 0.265 | 0.265 0.607 - | (88.20%) | (89.50%) | 4.492 | 0.1 | |
| | high | 5 | 9 | | | 11 | 16 | | | |
| | | (12.80%) | (9.80%) | | | (11.80%) | (10.50%) | | | |
| СРТ | low | 39 | 89 | | | 90 | 148 | | | |
| | | (100.00%) | (96.70%) | - 1.302 | 1 202 | 0.254 | (96.80) | (97.40%) | - 0.786 | 0.073 |
| | high | 0 | 3 | 1.302 | 0.234 | 3 | 4 | 0.780 | 0.075 | |
| | | (0.00%) | (3.30%) | | | (3.20%) | (2.060%) | | | |
| OPT- | low | 37 | 88 | | | 86 | 146 | | | |
| | | (94.90%) | (95.70%) | 0.038 | 0.845 | (92.50%) | (96.10%) | 0.225 | 1.471 | |
| | high | 2 | 4 | | | 7 | 6 | | | |
| | | (5.10%) | (4.30%) | | | (7.50%) | (3.90%) | | | |
| NPT | low | 36 | 88 | | | 81 | 144 | | | |
| | | (92.30%) | (95.70%) | 0.606 | 0.606 0.436 | (87.10%) | (94.70%) | 0.034 | 0.1 | |
| | high | 3 | 4 | 0.000 | | 12 | 8 | 0.034 | 0.1 | |
| | | (7.70%) | (4.30%) | | | (12.90%) | (5.30%) | | | |

Note:

i) APSC = Applied and Pure Science Cluster

ii) SSC = Social Science Cluster

iii) EPT= Extraversion PT, APT=Agreeableness PT, CPT=Consciences PT, OPT= Openness PT, NPT=Neuroticism PT

Overall, the high majority of the respondents had a low level of OPT. The low level of OPT is explained by characteristics, such as conforming, practical, narrow interest, preference for routine, bored, intolerant, uninterested, and closed to new ideas. A high level of OPT refers to individuals who are imaginative, independent, have broad interests, and who are open to new ideas (Ciorbea & Pasarica, 2013). The findings concerning the EPT and OPT may explain the low employability issues among fresh graduates from Malaysian public universities. The gender gap in salary and competition in promotion among male and female SSC respondents and APSC respondents may lead to various problems, such as stress, anxiety, and low self-steam (Friedman & Kern, 2014).

Among the APSC respondents, there was only a significant relationship between the NPT and the sex of the respondent. Males show a higher percentage (12.9%) than their female (5.3%) counterparts for the high level of NPT, which tends to indicate unstable emotions, manic, anxious, emotional self-pitying, insecure, depression, and susceptible to stress (Costa, Terracciano & McCrae, 2001). In general, the majority of the APSC respondents show a low level of NPT which comprises individuals who have unstable emotions, and who are subject to anxiety, moodiness, and sadness. High NPT individual may suffer of depression. Females showed a higher percentage (94.7%) of low level for the NPT than males (87.1%). According to Costa, Terracciano and MacCrae (2001) a high score of NPT is usually associated with females, but in this paper is associated with males whom are more depressed than females. Sometimes, some attitudes, such as high anxiety and low self-esteem, are associated with both - males and females.

According to Weisberg, Deyoung and Hirsh (2012), and Chapman, Duberstein, Sörensen, and Lyness (2008), there is a significant relationship between personality type and sex. Some high levels of personality type are associated with females (EPT, APT, and NPT) and some among males (APT and OPT). However, this paper only found that EPT, OPT (among SSC respondents) and NPT (among APSC respondents) had a significant relationship with sex. This variance may be attributed to the cultural and social differences between Malaysia and Western countries, and also the academic level of the respondents in this paper in that the majority were at the bachelor level (Lim & Abdullah, 2012).

This paper found a significant relationship between the OPT and the EPT among the SSC respondents. A high majority of the male and female SSC respondents have a low level of OPT and EPT. Low level of EPT reflects to quiet, low level of confidence,

unfriendly, stay away from social activities, narrow interests, like routine job. Whereas low level of OPT refer to easily bored, closed to new ideas, practical, conforming, less creative, follow discipline, uninterested in new activities, and dependent (Costa & McCrae, 1992). Obviously, the characteristics of low OPT and EPT may explain the reason for the low level of employability of the SSC graduates. Hence, action should be taken to assist the SSC students with low level of OPT or EPT.

According to Alon and DiPreteb (2015), Chapman, Duberstein, Sörensen, and Lyness (2008), and Costa, Terracciano and McCrae (2001), females are always associated with a high level of NPT; however, this paper found that APSC male students are also suffering from high NPT meaning they are prone to being emotionally reactive and vulnerable to stress. High attention should be given to this group of students in terms of student activities and counselling programmes because they will be in exclusive professions, such as Medical Doctors and Engineers, who need a high level of focus and to be emotionally stable to conduct their duties efficiently, as well as to reduce the on job risk for other people.

Male student prefers masculine and female prefers feminine career (Nasir, 1985). This is in line with gender ideology of male and female individual especially in Asia. Therefore a study in Malaysia found females are facing more problems in career choice than males which may due to gender and personality issues (Salleh, 1985). Currently there are many female than male students in many Malaysian universities, although in masculine programs. Therefore male and female students have to be assisted to properly groom his or her personality to suit to his or her program choices. For example individual with high NPT can be given training in stress management and positive thinking to assist them to improve themselves. The approach of this type of training should be gender sensitized as so that male and female problems can be addressed accordingly.

CONCLUSION AND RECOMMENDATIONS

From this paper, it can be concluded that only three personality types (EPT, OPT and NPT) had a significant relationship with the sex of the respondents by programme cluster disaggregated. The EPT and OPT are both significant among male and female SSC respondents, but not significant among male and female APSC respondents. Only the NPT is significant among the male and female APSC respondents. Nevertheless, the descriptive statistics show that a high majority of the students exhibit a low level of OPT, EPT, and NPT instead of a high level of each personality type. From the findings, it may be concluded that the respondents show a significant relationship between personality type and sex by programme cluster disaggregated.

This paper recommends further research on the relationship between NPT and sex among APSC students since this is the only personality type that had a significant relationship with sex among them. According to Ciorbea and Pasarica (2013), and Millon, Grossman, Millon, Meagher, and Ramnath (2004), individuals choose the university cluster according to their personal expectations and in accordance with their personality type, which makes them more successful and satisfied in their academic life. The NPT is characterised by anxiety, fear, moodiness, worry, envy, frustration, jealousy, and loneliness, and the high NPT may be linked with high stress.

According to the findings, this paper recommends to assist the SSC students to groom their personality type to become competitive in the job market because this paper found a low level of OPT and EPT. Generally they have low level of confidence, less creative, uninterested in new activities, and dependent. Obviously, this may explain the reason for the low level of employability of the SSC graduates. Hence, they have to be identified and assisted in order to increase their confident level, creative and able to face various challenges. This paper is also suggesting conflict management skill for APSC students to manage stress and anxiety, and to properly socialise in the community. Skill in handling conflict and stress are essential for every student especially to face new job environment. Nevertheless this paper found that APSC students need assistance in stress management.

The findings of this paper may assist programmes development in enhancing positive personality among students and must be gender sensitive for positive impact. University's counsellors may have ideas to design policies and programs related to good personality grooming of student. This paper may create awareness among both lecturers and students concerning the problematic personality type that may affect the academic performance of students. Especially among Asian people, further studies have to be carried out in order to identify personality types popular among Asian students. Therefore standard policies and program related to Asian students can be developed by Malaysian government. Thus a series of program can be delivered at various levels of national schools, colleges and universities.

Similar studies should be duplicated in various settings in order to trace the various relationships between the personality type and the sex of the student. Considering personality type among Asian people, many studies have to be carried out in order to assist fresh graduate with various background. For example rural and urban male and female may needs different approach to assist them. This would mean that research-based programme interventions, as well as policies, can be properly developed to assist university students to become competitive in the job market. Developing a positive personality type is a crucial for capacity building in human capital development. In addition to high quality of national education system and university modules, good personality of the student themselves is significant input for fresh university students to be competitive at job market.

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¹Sousan Naseri Post Graduate Student Master of Science (Gender and Development) Faculty of Ecology, University Putra Malaysia Serdang, Selangor Malaysia

²Zumilah Zainalaludin, PhD Senior Lecturer Department of Resource Management and Consumer Studies Faculty of Human Ecology University Putra Malaysia Serdang, Malaysia zumilah@upm.edu.my