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Learning Support for Pre-University Students: Comparison of Gender and Class Streams

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Abstract--- The purpose of this study is to examine the learning support for pre-university students in managing their *Pengajian Am* course works in the state of Perak. Learning support in the context of this study refers to support from parents, teachers, peers and the school environment in assisting pre-university students to complete their course works. This study involves 425 pre-university students. Semester 2 students were randomly selected from different backgrounds including different gender and class streams. Research data were collected through questionnaires and then analysed using the Statistical Package for Social Science software version 25.0. Findings show a high level of learning support received by pre-university students in Perak. In addition, significant differences were observed in learning support among pre-university students on the basis of gender and class streams. Results are intended to serve as a guide for parents, teachers, peers and school in enhancing learning support to assist pre-university students in completing their coursework and can serve as a route for future studies.

Keywords--- *Parent Support, Peer Support, Pre-University Students, Teacher Support.*

I. INTRODUCTION

The education system in Malaysia has experienced tremendous changes to serve the demands of the current global development and to produce students who are academically competent and outstanding in personality. These changes are necessary to meet the labour market needs, to equip students with critical and creative thinking and to enhance skills mobility across learning areas (Ogutu, 2017). However, the changes are still in line with the National Philosophy of Education, which is to comprehensively shape students who are balanced physically, emotionally, spiritually and intellectually. A sixth form education, also known as pre-university programme, is an opportunity for *Sijil Pelajaran Malaysia* holders to pursue further education before entering proper university level. This new term was initiated in a pioneer recruitment session in 2012/2013 in all schools that offer sixth form classes. The decision to change the term from a sixth form education to a pre-university programme was proposed in a cabinet meeting (MJM) (Malaysian Examination Council, 2012). The reformation marked a revision in the curriculum, co-curricular programmes, student affairs and research.

The rationale of the shift is to raise the sixth form education to a higher standard of educational level. The transformation involves holistic assessment, aligning the programme with learning systems in universities and developing self-reliance skills. In fact, the transformation is actually parallel with the objectives stated in the Malaysian

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Education Blueprint. The blueprint is an education development plan from 2013 to 2025 and focuses on aspects of producing or forming well-balanced students as an important indicator. A student's academic achievement is influenced by the guidance and constant encouragement from people around him. A student who receives more or a higher level of support would achieve higher or better academic performance. A student who receives continuous encouragement and motivation will be more grounded in his own learning and will mature with better personality. Learning support may come from many sources, particularly from parents, teachers and peers. According to Mahaffy (2004) and Shaarani et al. (2015), parental support would definitely result in positive values and influence students to have positive self-development that leads to improvement in academic achievements.

Teacher support is also essential as it motivates students to learn and improve their achievements. Teachers are significant and influential factors in students' academic performance and personal development. Teacher support can stimulate students' motivation in mastering a subject. In fact, according to Hattie (2003) and Arbaa et al. (2010), next to students' personal factors, a teacher is the second major factor who influences different achievements among students. Peer support is another important contributor in academic performance. A friend who excels in a certain subject will eventually help his friend succeed in that subject, because one's personalities will change according to the personality of his peers. This change happens because they learn from and help each another through influence and their level of their knowledge (Azizi & Friday, 2010).

In addition, this study examined the topic on the basis of gender and class stream among sixth form students. Studying these two aspects is crucial because they are common topics in academic performance and educational systems. Several previous studies have found significant differences between genders (Demir & Demirbas, 2010; Aziz & Ahmad, 2008), but other studies suggest no significant differences between genders (Bayraka & Altuna, 2009). In fact, learning processes vary between science and art students. On the one hand, science students are generally considered more realistic because they are guided by theories, reasoning and research evidence. Moreover, they possess analytical, rational and logical thinking. On the other hand, art students are commonly more creative, imaginative and emotional. Hence, students of different genders and class streams would respond differently, even though they interact and use the same infrastructure provided by the Ministry of Education, and are taught by the same teachers in the same school environment (Chong et al., 2013). Therefore, examining pre-university students and the role of learning support in their efforts to accomplish coursework is necessary to determine differences on the basis of gender and class stream.

II. METHODOLOGY

1) Research Design

A research design is a data processing procedure that is carried out by specific and systematic planning of a relationship concept between variables involved in a study (Wiersma, 2000). The research design of this study serves as a guide in helping researchers collect data, analyse and interpret the results of the research. This study follows a quantitative method using a survey. This type of study is defined as collecting information from the answers of individual respondents. A quantitative study allows researchers to apply various methods to invite research participants,

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to collect data and to use various types of instruments (Check & Schutt, 2012). One of the most frequent data collection methods is the questionnaire and its items are evaluated numerically. This research instrument is often used in social and psychological research (Singleton & Straits, 2009).

2) Participants

The research population is the target group selected to answer research questions. The population of this study is pre-university students studying in Perak. According to the Perak State Education Department, 62 schools in Perak offer sixth form classes. Hence, the simple random technique was adopted for the selection of samples to serve the purpose of this study. According to Idris (2013), the simple random technique is a process of selecting research objects to represent a large group. The sample size was determined on the basis of the selection table provided by Krejcie and Morgan (1970). The main purpose of selecting sixth form students was to select respondents who have the same characteristics in terms of maturity and cooperative nature throughout the research period. A total of 425 pre-university students in Perak were involved in this study, among which, 180 (42.4%) were male and 245 (57.6%) were female. In terms of streaming, 185 (43.5%) were science students and 240 (56.5%) were art students.

3) Measurement

A set of questionnaires was used as the instrument of this study. The rationale of using the questionnaire form in this study is in line with Konting (2005) who stated that when the number of subjects is large and subjects are far apart from each other, a research instrument that is cost effective, and can reduce time and energy constraints for data collection will be most suitable. The researchers adopted the items from the questionnaire developed by Yunus (2016). The instrument consisted of 18 items that test teacher support (6 items), parental support (6 items) and peer support (6 items). Responders rated their answers on a five-point Likert scale from 1 (strongly disagree) to 5 (strongly agree).

The validity of this research instrument was confirmed by referring to three content experts and two language experts. In addition, a pilot study was carried out involving 150 students as a reliability test of the instrument. According to Merriam (2001), a pilot study is conducted with the aim to ensure that the research questionnaire is reliable. Results of the pilot study will give the researcher real information on any problem of the research instrument used in the context of the study, particularly to determine its suitability, and appropriateness to test what is proposed by the study (Chua, 2006). The reliability of this instrument was determined by Cronbach's alpha, in which a value greater than 0.60 is often used to measure reliability index (Konting, 1998). All three factors of learning support were tested and confirmed to have internal consistency (Cronbach's alpha), namely the value for teacher support (0.891), parental support (0.849) and peer support (0.835). Thus, the overall value of Cronbach's alpha was 0.894 for learning support.

4) Data Analysis

The data of this study were analysed using SPSS 25.0. Descriptive statistics was also conducted using the mean and standard deviation to determine the level of learning support among students. The interpretation study on the level of student involvement in co-curricular activities (sports and games) was based on modified Nunally (1978) with a range of 1.00–2.33 (low), 2.34–3.66 (moderate) and 3.67–5.00 (high). Inference statistics using one-way MANOVA test was

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also conducted to identify differences in learning support on the basis of gender and class stream. Pallant (2016) stated that the MANOVA procedures are sensitive to sample size, data normality and data homogeneity. Therefore, before the MANOVA test could be performed, several factors or assumptions were met as prerequisites.

III. RESULTS AND ANALYSIS

1) Learning Support for Pre-University Students

Descriptive statistics including mean and standard deviation were used to determine the level of support for pre-university students. Table 1 shows the results of these descriptive statistics.

Table 1: Learning Support among Pre-University Students in Perak

Learning Support	*M*	*SD*	*Interpretation*
Peer Support	3.94	0.66	High
Teacher support	4.04	0.61	High
Parental support	3.99	0.66	High
Total	3.99	0.52	High

The highest learning support for pre-university students in Perak is teacher support (M = 4.04, SD = 0.61), which shows a high level. Teacher support is followed by parental support (M = 3.99, SD = 0.66) and peer support (M = 3.94, SD = 0.66), which are both considered high level. Overall, the level of learning support from peers, teachers and parents for pre-university students in Perak is high (M = 3.99, SD = 0.52).

2) Differences in Learning Supports among Pre-University Students Based on Gender

The MANOVA test was conducted to identify differences in learning support in terms of peer support, teacher support and parental support among pre-university students on the basis of gender. Prior to the MANOVA analysis, the researchers had first conducted a test to meet the pre-conditions of conducting the MANOVA test. Normality tests were performed to determine whether the data were normally distributed or skewed. The data normality was determined by using statistical methods.

The statistical methods used in this study were the skewness and kurtosis tests for normality. Data are considered normally distributed and qualified when the values of skewness and kurtosis are between −3.0 and +3.0. Statistical results revealed the skewness and kurtosis values for learning support among pre-university students in terms of peer support for male (−0.80, 1.02) and female (−1.30, −2.08), the values of teacher support for male (−0.72, 1.48) and female (−0.66, 0.75) and the values of parental support for male (−0.76, 0.98) and female (−0.88, 1.95). Each value is within the range of −3 and +3, which shows that learning support among pre-university students based on gender meet the normality criteria.

The homogeneity of the variance was determined through the homogeneity of the variance-covariance matrix by using Box's M test. Box's M test analysis shows no significant covariance differences among the dependent variables for all independent variables with the values of F = 4.793 and sig = 0.002 (p > 0.001). This result means that the dependent variable-covariances are homogeneous across independent variables. Therefore, the one-way MANOVA test requirements were met to determine learning support in terms of peer support, teacher support and parental support

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among pre-university students in the state of Perak based on gender. This test was necessary because the sample size in this study was large and data were normally distributed (Pallant, 2016).

Wilks' Lambda test was used to see an overall significant difference in each group compared with the independent variables studied (Pallant 2016). Wilk's Lambda is used in studies that involve a large number of samples and meet homogeneity requirements (Tabachnick & Fidell, 2013). Results of the Wilks' Lambda test show a significant difference in learning support among pre-university students in Perak based on gender with the value of 0.909, F (1,423) = 13.968 and sig = 0.001 ($p < 0.05$). In addition, the Eta-squared test shows a value of 0.091. This result reveals that the different effects are moderate (Cohen, 1988). Table 2 shows the details of the differences, in terms of peer support, teacher support and parental support among pre-university students in Perak based on gender.

Table 2: One-way MANOVA Test on the Differences of Learning Supports among Pre-University Students Based on Gender

Independent variables	*Type III SS*	*df*	*SS*	*F*	*Sig.*	η^2
Peer support	9.142	1	9.142	22.313	0.001	0.050
Teacher support	6.577	1	6.577	18.465	0.001	0.042
Parental support	14.205	1	14.205	34.894	0.001	0.076

Table 2 shows a significant difference in learning support in terms of peer support ($F = 22.313$, sig = .001, $p < 0.05$), teacher support ($F = 18.465$, sig = 0.001, $p < 0.05$) and parental support ($F = 34.894$, sig = 0.001, $p < 0.05$) among pre-university students in the state of Perak based on gender. Female students (M = 4.12) receive higher peer support than male students do (M = 3.82). Similarly, female students (mean = 4.15) receive higher teacher support than male students do (M = 3.90). Furthermore, parental support for female students (M = 4.10) is also higher than that for male students (M = 3.73). The different effects of learning support in terms of peer support, teacher support and parental support among pre-university students based on gender were referred to the partial Eta-squared values (Pallant, 2016). The partial Eta-squared in terms of depth and size indicates the values for peer support (0.050), teacher support (0.042) and parental support (0.076), which show that the effect size ranges from small to moderate (Cohen, 1988).

3) Differences in Learning Support among Pre-University Students Based on Class Streams

The MANOVA test was conducted to identify differences in learning supports in terms of peer support, teacher support and parental support among pre-university students in Perak based on class streams. The results revealed the skewness and kurtosis statistics for learning support for the students in terms of peer support for science students (−0.78, 0.89) and art students (−1.51, −2.64), teacher support for science students (−0.40, 0.24) and art students (−1.20, 2.63) and parental support for science students (−0.83, 1.40) and art students (−1.09, 2.32). Each value is within the −3 and +3 range. Accordingly, this result confirms that learning support in terms of peer support, teacher support and parental support among pre-university students in the state of Perak based on class streams meet the normality criteria.

The homogeneity of the variance was determined by the homogeneity of the variance-covariance matrix by using Box's M test. The Box's M test analysis did not find any significant covariance differences among the dependent variables for all independent variables with values of $F = 2.305$ and sig = 0.032 ($p > 0.001$). This finding means that

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the dependent variable-covariances are homogeneous across the independent variables (Pallant, 2016). Hence, the one-way MANOVA test could be performed. Moreover, the Wilks' Lambda test generally depicts a significant difference in learning support in terms of peer support, teacher support and parental support among pre-university students in Perak based on class streams, with the Wilks' Lambda value of = 0.861, F (1,423) = 22.672 and sig = 0.001 ($p < 0.05$). In addition, the Eta-squared test showed a value of 0.139, meaning that the different effects are moderate (Cohen, 1988).

Table 3: One-way MANOVA Test on the Differences in Learning Support among Pre-University Students Based on Class Streams

Independent variables	Type III *SS*	*df*	*SS*	*F*	*Sig.*	η^2
Peer support	21.235	1	21.235	55.715	0.001	0.116
Teacher support	13.224	1	13.224	38.841	0.001	0.084
Parental support	10.270	1	10.270	24.664	0.001	0.055

Table 3 shows a significant difference in learning support in terms of peer support ($F = 55.715$, sig = 0.001, $p < 0.05$), teacher support ($F = 38.841$, sig = 0.001, $p < 0.05$) and parental support ($F = 24.664$, sig = 0.001, $p < 0.05$) among pre-university students in Perak based on class streams. Art students (M = 4.19) receive higher peer support than science students do (M = 3.74). Similarly, in terms of teacher support, the mean score for art students (mean = 4.20) is higher than that for science students (M = 3.84). Furthermore, art students also receive higher parental support (M = 4.08) than science students (M = 3.76). The different effects of learning support in terms of peer support, teacher support and parental support among pre-university students based on streams are referred to the partial Eta-squared values (Pallant 2016). Results of the partial Eta-squared in terms of depth and size indicate the values for peer support (0.116), teacher support (0.084) and parental support (0.055), which depict that the effect size ranges from small to moderate (Cohen, 1988).

IV. DISCUSSION

Parental support for pre-university students in Perak is at a high level. This finding reveals that parents play an important role in their children's education. Parental support is paramount and without this support, students will feel less valued and less motivated to strive for better achievements. Encouragement and moral support, together with financial security, are essential in a student's life. The findings of this study are in line with a study (Chohan & Khan, 2010) that found that parents who support their children with school work and academic activities would positively influence their children's academic performance and achievement. Other studies also concluded the same findings on the role of parents. Among them is a study conducted by Simons-Morton and Chen (2009), who concluded that parental involvement is imperative in establishing praiseworthy behaviour, social cohesion and academic improvement of a student. In addition, Murray (2009) found that the quality of parent–child relationships is a major contributor to a student's values, competencies and achievement in coordinated reading.

Teachers are practitioners of knowledge. Thus, their contributions are definitely influential in education. A teacher does not simply teach, but acts as a mentor, leader and role model to his students. Every teacher needs to be aware of the ever-changing challenges and demands of current teaching and learning strategies in the world of education. This

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finding is evident in this study, where teacher support among pre-university students in Perak is of high quality. Results of this study are in line with the findings of several other studies conducted in Malaysia. A study explains that the teacher factor is significant in influencing students' academic performance and personal development (Arbaa et al., 2010). This conclusion is not surprising as teachers are kind, caring, disseminators of cultural values and responsible in shaping students' morals. In addition, according to Lam (2012) and Brooks et al. (2012), a teacher who provides learning support definitely contributes to student involvement in school, and this contribution enhances students' motivation and achievement in their own learning. Teacher support is also a determinant of success in learning and thus influences a student's academic excellence. With guidance from a teacher, a student has the potential to succeed (Salleh et al., 2012).

The presence of peers in a student's life brings many benefits. Peers have the ability to influence one's personal development, values and attitudes. In fact, the intellectual, personal, emotional and social development of a student is also influenced by his peers as a result of interactions. This statement is proven by the results of the current study. The findings reveal a high level of peer support, because socialising with peers can help students improve their academic achievement. Students are also said to be actively engaged in school activities with the support of their peers (Yusoff & Azman, 2020). A peer is considered a replacement for absent family members, and the behaviour of peers often guides one on how to conduct his own behaviour. International studies also support the findings on the role of peers. Among them is a study by Ryan (2014), who proved that interactions with peers who have high academic achievement would influence the academic performance of other students, even though such influence is minimal.

Results of the MANOVA test show significant differences in learning support in terms of parental support, teacher and peer supports among pre-university students in Perak based on gender. The findings show that parental support for female students is higher than that for male students. Similarly, female students receive higher teacher support than male students do. Moreover, female students also receive higher peer support than male students do. The findings are in line with the findings of Rasib and Maat (2018) in Malaysia. They found that girls receive better parental support. In contrast, Rasib and Maat (2018) found other notable results, such as parents tend to provide more support to their male children by encouraging them to be involved in class activities compared with female children.

In fact, Jelas et al. (2005) clearly showed that female students receive higher learning support from teachers because female students have similar style and skills with their teachers' ways of teaching. Female students are said to have more trust on their peers to help them with their learning activities. Generally, the results of this study support the findings from Lam et al. (2012), Wang and Holcome (2010), who stated that peer support is low for male students but high for female students. Students who receive high support from their peers would likely be more active and involved in school activities.

Results of the MANOVA test also show that parental support for art students is higher than the support given to science students. The same results are found for teacher support and peer support, wherein art students also receive higher support than students from the science stream do. The findings are in line with the research findings concluded by Yahaya and Norhashimah (2011). They found that students who decided to continue their studies in a technical

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school were influenced by their family members especially their parents. In addition, the choice of course is also influenced by parents. Most parents encouraged their children to choose art stream because they wanted to ensure that their children's examination results will not be compromised. Parents discouraged their children from taking science subjects and provided wrong information to their children until the child lost interest and changed their decision. However, findings of this study support the conclusions of Asha'ari and Omar (2018), who found that parents are not the main factor who influence students to choose art subjects.

Teacher support in the learning process varies among students of different streams due to various reasons, such as the teacher's skills and competency. This finding is supported by Ahmad and Jinggan (2015), who stated that a teacher's competency and teaching skill definitely influence his students' academic achievement. However, Yahaya and Norhashimah (2011) found that teachers or counsellors do not influence students' decision to choose certain subjects or class streams. Nevertheless, teachers play an important role in fostering students' positive attitudes towards science subjects, which, in turn, can improve students' performance.

Several studies confirm peers as a form of learning support for a student. Among them is a study conducted by Yahaya and Norhashimah (2011). They concluded that peers are vital in a student's learning. Peers are considered an influential group that affects a student's achievements and aspirations more than other factors. Students refer to their peers to make decisions on a course to select. Thus, peers help and inspire their friends in a learning process. In contrast, Asha'ari and Omar (2018) stated that peer pressure has little impact on the selection of class stream.

Parental support, guidance and observation are essential for students especially when they are at home. Hence, parents' awareness of what their children are learning and their learning needs are essential. If parents can keep pace with changes in the learning process, then their children will gain far-reaching benefits. In addition, parents devoting time to meet with teachers to discuss their children's academic performance will be valuable. Uneducated parents can still provide learning support by seeking help from teachers, peers, and relatives, to facilitate their children's learning process.

V. CONCLUSION

Generally, this study proves that pre-university students in the state of Perak receive extensive learning support from various parties. However, the level of support varies for students of different genders and class streams. Therefore, all parties involved in this study need to take advantage of the research findings and to collaborate with one other to ensure that the gaps between students of different genders and class streams can be addressed and to uphold the importance of student education.

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