INFLUENCE OF PARENTAL INCOME AND ENCOURAGEMENT ON ACADEMIC SELF-EFFICACY AND ACHIEVEMENT AMONG MALAYSIAN UNIVERSITY STUDENTS

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Abstract:

Parents play an important role in shaping the academic achievement of their children. This study aimed to investigate the association between parental factors and university students’ academic self-efficacy and academic achievement, and the correlation between academic self-efficacy and the academic achievement of university students within the context of Malaysia. The cross-sectional study recruited participants using an online questionnaire, which included demographic information such as age, current education status, current working status, Cumulative Grade Point Average (CGPA) and parents’ monthly income, the Parental Encouragement Scale (PES), and Academic Self-efficacy (ASE) Scale. A total of 196 participants responded to the survey. The results of the Pearson’s correlation showed that parental encouragement was positively correlated with academic self-efficacy (r (196)=.144, p=.044), whilst academic self-efficacy was positively correlated with CGPA (r (196) = .241, p=.001). The multiple linear regression model showed that part-time working status (β=-.184, p=.008) and academic self-efficacy (β=.252, p<.001) were
Education, Psychology and Counseling. 6 (44), 81-94.

DOI: 10.35631/IJEPC.644007
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significantly associated with CGPA. Parents should be encouraged and trained to develop academic self-efficacy in their children.

Keywords:
Parental Encouragement, Parental Income, CGPA, Academic Self-Efficacy

Introduction

Background
In an era where education is perceived as one’s most powerful asset and is pragmatic in contributing to the nation, Malaysia has given the prominence to education on an equal footing with other developed countries. The higher education system in the country has also evolved significantly, with a large increase in student enrollment and international recognition (Aziz, Sulaiman, & Ab Razak, 2020). As an example, UNESCO (2020) revealed that the enrollment rate of tertiary education in Malaysia had increased from 37.03% (2010) to 45.13% (2018). In addition, the report of Quacquarelli Symonds (QS) World University Rankings: Asia 2021 disclosed that Malaysia’s education system has been rated as highly reputable among academics and employers at the Asian level (Ministry of Higher Education, 2020). In view of the above, parents inevitably feel obliged to raise the academic standing of their children to be on par with societal demands. The ever-growing social needs coupled with the mounting academic pressure from the parents often bogged the students down due to the overwhelming academic-related stress placed upon their shoulders. This results in students perceiving that their academic life was demanding and stressful, and a lack of competence to cope with stressful situations results in them being stressed out (Paralkar & Knutson, 2021).

The phenomenon above also concluded that Malaysians acknowledge the importance of education as the primary gateway to a successful future. Correspondingly, private higher educational institutions has become a feature of modern higher education all around the world as colleges and universities become more integrated into the global education market, leading to heightened competition in their efforts to attract a varied student population (Mustafa, Sellami, Elmaghraby, & Al-Qassass, 2018). Therefore, cost-related issues are one of the factors that influence the students’ decision-making in their study enrollment (Shamsudin, Ali, Nadzri, & Ab Wahid, 2019). In this respect, parents’ financial status brings an impact on the children’s educational opportunities (Satici & Can, 2016) and the parents’ earning abilities indirectly determine the immediate home environment that they can provide to their children for their cognitive and intellectual development.

Generally, children are the closest to their parents as the latter nurture the holistic growth of their children. Hence, parental factors play a crucial role in children’s academic success. For instance, parental encouragement is vital in shaping the students’ beliefs about their capabilities in achieving academic success (Lawrence & Barathi, 2016). As the world rapidly advances, the responsibility
of the students to further their education becomes more imperative in order to meet the societal and parental expectations. Consequently, parental support would be one of the most powerful protective factors for the students to maintain academic excellence (Moral-García, Urchaga-Litago, Ramos-Morcillo, & Maneiro, 2020).

Apart from that, parental autonomy support is shown to be one of the predictors of children’s academic self-efficacy (Grijalva-Quíñonez, Valdés-Cuervo, Parra-Pérez, & Vazquez, 2020), suggesting that parents are the emotional anchor to their children throughout their journey of education. Considering that self-efficacy belief moulds the children’s behaviours and attitudes in their studies (Zamfir & Mocanu, 2020), parents should make every effort to enhance the children’s academic self-efficacy, so that they are able to excel in their learning.

In short, it is undeniable that parental factors play a critical part in determining the students’ academic achievement as well as their academic self-efficacy level. Therefore, it is fundamental to identify the underlying factors that contribute to the students’ academic success.

**Rationale**

Extensive research has been done on parental factors and the academic achievement of students. Nevertheless, few have been done within the context of Malaysia, and even fewer have analysed the variables in the way that this study is proposing, which includes academic self-efficacy in the present study as academic self-efficacy is regarded as one of the crucial indicators in enhancing the success of academic performance. For example, earlier studies investigated the association between socio-economic status and academic achievement of the children but did not include academic self-efficacy as one of the outcome variables (Adzido, Dzogbede, Ahiave, & Dorkpah, 2016; Gobena, 2018; Vaknin, Shavit, & Sasson, 2019). Furthermore, some of the studies examined the relationship between parental involvement and educational attainment of the children, however, academic self-efficacy was not included as the dependent variable (Dotterer & Wehrspann, 2016; Lara & Saracostti, 2019; Perkins et al., 2016).

On the other hand, the majority of the parents in Asia adopt an authoritarian parenting style (Shayo, 2019), which expects the children to obey a set of rules without explanation (Checa & Abundis-Gutierrez, 2018), and expecting their children to obey out of the concept of filial piety. The authoritarian parents also supervise their children closely and ensure a disciplined environment within the family (Nwune, Anidi, & Okwuduba, 2021). As postulated by Sangawi and colleagues (2015), the cultivation of discipline in children, particularly from Eastern countries positively influences their academic development. Despite that, the results from Nwune and co-researchers (2021) were reported to be contradictory, which suggested a negative association between authoritarian parenting styles with children’s school performance due to a lack of responsiveness, failure in communicating openly with the children and showing a small degree of trust to the children. As such, this study aims to raise awareness among the parents, peculiarly Malaysian parents to build a positive learning environment for the children to enhance both their academic performance and academic self-efficacy.
Last but not least, this study also aims to shed light on the costs of higher education in Malaysia. According to Declercq and Verboven (2015), students from less favourable financial backgrounds have lower enrolment rates in tertiary education. The educational institutions should take appropriate measures such as providing scholarships and grants to assist underprivileged students as a mean of promoting equality in educational opportunities (Hassan & Rasiah, 2017).

**Literature Review**

In terms of the relationship between parental income and CGPA, studies suggested that parental income affects children’s academic achievement to some extent (Rosen, Sheridan, Sambrook, Meltzoff, & McLaughlin, 2018; Vaknin, Shavit, & Sasson, 2019). For instance, Manga and Tela (2018) revealed that undergraduate students from low-income families underperformed in their academics. From the perspective of neural mechanisms, it is possibly attributable to greater fractional anisotropy (FA) in the right and left superior longitudinal fasciculi (SLF) in children from favourable SES, leading to higher educational attainment (Rosen, Sheridan, Sambrook, Meltzoff, & McLaughlin, 2018).

Furthermore, higher SES also enables the children to have better accessibility to academic resources and have a greater opportunity to participate in activities that are beneficial in fostering their development from childhood to adulthood (Wang, Chen, & Gong, 2021).

Nonetheless, there is also a possibility where high parental income negatively influences the children’s academic success. For example, the expectations from the high-income parents on their children to follow in their footsteps might conversely cause their children to develop depression (Ma, Siu, & Tse, 2018), resulting in poor academic performance (Muhammad, Terna, & Saanyol, 2017).

With regards to the association between parental income and ASE, Merritt and Buboltz (2015) proposed that SES is positively correlated to ASE with the reason that low SES families are usually accompanied by poor educational background and therefore, the children hold little confidence about their capabilities, leading to misconceptions towards post-secondary education. On the contrary, children living in a financially stable family have stronger ASE due to the exposure to better learning opportunities (Satici & Can, 2016).

Adding on, the students from different social backgrounds tend to develop a sense of self-efficacy that is compatible with their positions at the social hierarchical structure (Wiederkehr, Darnon, Sebastien, Guimond, & Martinot, 2015). Due to the negative stereotype that is consistently linked to the students from low-income families, they unconsciously presumed that their “academic value” is lower and lack of capabilities to be successful in their education (Wiederkehr, Darnon, Sebastien, Guimond, & Martinot, 2015).

On the other hand, the relationship between parental encouragement and children’s educational attainment from recent research was found that parental encouragement has a significant positive correlation to children’s academic achievement (Butt & Mushtaq, 2016). Among the child-rearing
practices, the authoritative parenting style has the highest association with positive learning outcomes as it consists of support and warmth from the parents (Yang & Zhao, 2020). The children are able to overcome their problems with guidance from supportive parents (Masud, Thurasamy, & Ahmad, 2015). On top of that, an authoritative family also promotes the development of academic-related skills and abilities such as self-regulation and independence, suggesting greater academic success (Checa & Abundis-Gutierrez, 2017).

In respect of the association between SES and self-efficacy, with parental encouragement as the mediator, expounded that when the parental encouragement factor was removed, SES became a non-significant predictor on the self-efficacy of the students (i.e. if the students come from supportive families, they will have high self-efficacy despite being raised in a low-income family), reflecting that parental encouragement is vital in determining the students’ belief in how far they can achieve in their academics (Merritt & Bubolt, 2015).

In the context of the relationship between ASE and CGPA, ASE emphasizes the students’ belief in their capabilities to execute the tasks given to them in the academic field (Mehmood, Adnan, Shahzad, & Shabbir, 2019). People with a high level of self-efficacy have confidence and uphold a firm commitment in the face of adversity to prove that the situation is under their control (Mehmood, Adnan, Shahzad, & Shabbir, 2019). In the context of academics, it is substantial for students to equip themselves with ASE in order to succeed in their studies.

Research findings indicated that ASE has a significant positive relationship to the academic achievement of university and college students (Aziz, Sulaiman, & Ab Razak, 2020; Kolo, Jaafer, & Ahmad, 2017; Musa, 2020). This is backed by the fact that students with higher ASE are provident in their academic work as well as fulfilling their obligations (Uzun & Karatas, 2020). Academically efficacious students also tended to adopt problem-focused coping strategies (Ochoa, 2020), which are positively related to educational attainment (Gustems-Carnicer, Calderón, & Calderón-Garrido, 2019).

Alternatively, Honicke and Broadbent (2016) proposed that a non-significant result between ASE and CGPA could be possibly due to the students’ limited exposure to the mastery learning experience as it is an essential component in establishing their ASE.

**Research Objectives**
This study aimed to examine whether parental encouragement and parental income were significantly associated with ASE and CGPA of university students as well as the relationship between ASE and CGPA of university students.
Research Methodology

Research Design
The study used quantitative methods, specifically survey research.

Research Samples
The sample population of this study are university students in Malaysia who are at least 18 years old and enrolled in either public or private universities. The participants need to be English literate as the instruments are all in English. The sampling methods used in this study is a combination of convenience and snowball sampling. There was a total of 196 samples participated in this study.

Research Instrument and Procedures
The participants first had to give their consent before participating in the research. Then, they were required to fill up a questionnaire about their demographic information, including age, current educational status, current working status, CGPA and parental income, followed by the PES and ASE scale.

   Parental Encouragement Scale (PES)

PES is designed by Sharma (1988) to measure the amount of encouragement received by the children from their parents, which contains items of parents’ encouragement in studies, school homework, problem solving, hobbies, selection of right career, tensions reduction and inspiring to do right (Vyas & Khokhar, 2021). It consists of 40 items with three alternative responses, each ranges from 0-2, and the total score of the test ranges from 0-80. A sample of the items in the scale is “In selection of subjects my parents A) do not guide (0), B) advice to decide on my own (1), C) help me to choose according to my interests and capabilities (2). The split-half reliability is reported as .83 (Vyas & Khokhar, 2021). In this study, PES showed an excellent internal consistency, α = .90.

   Academic Self-efficacy Scale (ASE)

ASE scale used in this study is taken from Sachitra and Bandara (2017), which in itself is adopted from prior studies. It is a 20-item tool which measures academic self-efficacy across a single dimension. The response is on a 5-point Likert scale with 1 being strongly disagree and 5 being strongly agree. One of the sample items from the scale is “I ask questions in lectures”. The minimum score of the scale is 20 and the maximum score is 100. The higher the score, the higher the individual’s academic self-efficacy beliefs. The internal consistency of the ASE is reported to be α = .79. In this study, the construct was also reported to have a good internal consistency, α = .84.

Results
A total of 196 students responded to the survey (Mean age = 22.13, SD = 1.65). Most of them were 23 years old (40.8%), undergraduate students (84.2%), from the Middle 40 (RM4,850-RM10,959) household income group (50.5%), was not currently working part time (83.7%), and had a Second Upper Class (3.00 - 3.66) CGPA (50.5%). The mean monthly household income was 7072.83 (SD=4516.87) and mean CGPA was 3.50 (SD=0.40) (Table 1).
| Table 1: Participants’ Characteristics (N=196) |
|---------------------------------------------|
| Variables                                   | Frequency (%) |
| Age                                         |               |
| 19                                          | 17 (8.7)      |
| 20                                          | 21 (10.7)     |
| 21                                          | 22 (11.2)     |
| 22                                          | 33 (16.8)     |
| 23                                          | 80 (40.8)     |
| 24 and above                                | 23 (11.8)     |
| Current Education Level                     |               |
| Foundation/Diploma                          | 22 (11.2)     |
| Undergraduate                               | 165 (84.2)    |
| Postgraduate                                | 9 (4.6)       |
| Household Monthly Income                    |               |
| B40 (<RM4,850)                              | 70 (35.7)     |
| M40 (RM4,850 - RM10,959)                    | 99 (50.5)     |
| T20 (>RM10,959)                             | 27 (13.8)     |
| Part Time Working Status                    |               |
| Yes                                         | 32 (16.3)     |
| No                                          | 164 (83.7)    |
| Cumulative Grade Point Average (CGPA)       |               |
| 1st Class (3.67 - 4.00)                     | 81 (41.3)     |
| 2nd Upper Class (3.00 - 3.66)               | 99 (50.5)     |
| 2nd Lower Class (2.50 - 2.99)               | 13 (6.6)      |
| 3rd Class (2.00 - 2.49)                     | 3 (1.5)       |
| Fail (0.00 - 1.99)                          | 0 (0.0)       |

The results of the independent samples *t*-test revealed that participants who worked part time had a significantly lower CGPA (3.34, SD=0.44) compared to those who are not (3.53, SD=0.39), *t*(194)=2.381, *p*=.018. However, there was no association between part-time working status and academic self-efficacy. The results of the between-groups one-way ANOVA showed that there were no significant differences in CGPA and academic self-efficacy in terms of current education level and monthly household income.

The results of the Pearson correlation showed that parental encouragement was positively correlated with academic self-efficacy (*r*(196) = .144, *p*=.044), whilst academic self-efficacy was positively correlated with CGPA (*r*(196) = 0.241, *p*=.001) (Table 2).
Table 2: Mean, Standard Deviation and Correlation Coefficients between the Continuous Variables

| Variables                                      | Means (SD)       | 1  | 2    | 3    | 4    | 5    |
|------------------------------------------------|------------------|----|------|------|------|------|
| Age (1)                                        | 22.13 (1.65)     | -  | -.049| -.046| -.054| -.083|
| Monthly Household Income (2)                   | 7072.83 (4516.87)| -  | .055 | .016 | -.042|
| Parental Encouragement Scale (PES) (3)         | 49.92 (11.09)    | -  | .144 |      | -.075|
| Academic Self-Efficacy (ASE) (4)               | 75.10 (8.28)     | -  |      | .241 |      |
| Cumulative Grade Point Average (CGPA) (5)      | 3.50 (0.40)      | -  |      |      |      |

A multiple linear regression analysis was run to examine the predictive value of working part-time and academic self-efficacy on CGPA. The results showed that the predictors accounted for 9.2% of the variance in CGPA, \(R^2=.092\), adjusted \(R^2=.082\), \(F(2, 193)=9.764, p<.001\). Academic self-efficacy remained a significant predictor of CGPA (\(\beta=.252, p<.001\)), as well as part-time working status (\(\beta=-.199, p=.008\)) (Table 3).

Table 3: Multiple Linear Regression Analysis of Factors Predicting Academic Achievement (Cumulative Grade Point Average)

| Variables                        | B    | 95% CI | \(\beta\) | p    |
|----------------------------------|------|--------|------------|------|
| Constant                         | 2.61 | -      |            |      |
| Part-time working status         |      |        |            |      |
| Yes                              | -.199| -.346  | -.052      | .184 |
| No (reference group)             |      | -      |            |      |
| Academic self-efficacy           | .012 | .006   | .019       | .252 | <.001|

Note. \(R^2=0.092\), adjusted \(R^2=0.082\), \(F(2, 193)=9.764, p<.001\)

Discussion

Due to the importance of parental influence on their children’s academic achievement, this study aimed to examine whether parental encouragement and parental income were associated with the ASE and CGPA of university students. The results showed that parental encouragement was correlated with academic self-efficacy, whilst academic self-efficacy and students’ part-time working status predicted better academic achievement. We found that none of the parental factors were associated with academic achievement.

The positive relationship between parental encouragement and ASE is in line with the findings from previous research, suggesting that parental encouragement is vital in determining the students’
belief in how far they can achieve in their academics (Boonk, Gijseelaers, Ritzen, & Brand-Gruwel, 2018; Merritt & Bubolt, 2015). Intrinsic rewards such as parental encouragement is believed to be more important than extrinsic or tangible rewards, as the latter only have a short-term effect on the students’ performance (Cheo, 2017). This may be because a parent’s encouragement and support of a child’s academic pursuit may be internalised and thus increases a child’s confidence in their own ability to perform well. Apart from that, parental encouragement conveys a positive information about the children’s competency in academic settings, leading to a sense of achievement that motivates them to exert more effort in their studies.

This study also found a positive relationship between ASE and CGPA. The findings of the study agree with earlier research conducted by Ismail and colleagues (2017) which demonstrated that students who have higher self-efficacy tended to get a higher GPA in their examinations. This may be the case as they hold positive views towards their education (Akram & Ghazanfar, 2014) and are more persistent in overcoming difficulties encountered in their studies (Mega, Ronconi, & De Beni, 2013) due to the greater self-efficacy within them. High ASE also allows an individual to understand their capabilities and mobilise actions that are necessary to attain their pursuits (Freire et al., 2020) such as planning study timetable.

The study results showed that parental income did not have a significant association with either ASE or academic achievement. The results are not consistent with past studies which found that children from a higher economic status tended to thrive in an enriched environment, and converse received more stimulation to enhance their cognitive development leading to higher academic achievement (Rosen, Sheridan, Sambrook, Meltzoff, & McLaughlin, 2018). A meta-analysis showed that there was a positive correlation between socioeconomic status and academic achievement among China students (Liu, Peng, & Luo, 2020). However, another study had shown that the influence of low socioeconomic status could be overcome by parental involvement activities, which may include parental encouragement (Duan, Guan, & Bu, 2018). Therefore, parental income may take a secondary role compared to the importance of parental encouragement among our study participants.

On the other hand, as part-time working status was negatively associated with academic achievement, there needs to be more attention paid to students who are seeking extra income. According to Hordósy, Clark, and Vickers (2018), students who were constrained to work part-time were usually from lower-income families. However, further exploration of our data (analysis not shown) revealed that there was no significant association between students’ part-time working status and parental income category. Therefore, there needs to be further studies to explore why students choose to work part-time, and if possible, to discourage such activities so that their academic achievement is not affected.

Implications
From a theoretical perspective, the findings validate that parental encouragement is significantly correlated to the ASE of university students in the Malaysian context. As parental encouragement is part of the elements of the authoritative parenting style, it is suggested that Malaysian parents
share a similarity with western families who mainly adopt the authoritative parenting style in their child-rearing practices (Checa & Abundis-Gutierrez, 2018).

Furthermore, the research has several practical implications for the parents in facilitating the educational development of their children. The significance of the relationship between parental encouragement on their children’s academic achievement suggested that parents should consistently support their children from various aspects such as emotional, instrumental and information assistance (Morris et al., 2017). For instance, the parents can incorporate positive reinforcement in their parenting practices by praising the children for their hard work. Additionally, parents are also encouraged to create and maintain an environment that fosters the children’s learning experience by engaging in a bi-directional conversation with the children about educational expectations. As a result, the transmission of positive parental achievement-related expectations will lead to a desirable impact on the children’s academic accomplishment (Pinquart & Ebeling, 2020).

Limitations
This study has a number of limitations. First of all, this was a cross-sectional study which did not seek to establish the causal relationship between parental income and parental encouragement with the participants’ ASE and academic achievement. The participants were recruited through an online survey, and therefore the participants were self-selected and potential bias could occur. Future studies should seek to establish any cultural aspects that may mediate the relationship between parental factors on their children’s ASE and achievement.

Conclusion
In accordance with the research objectives introduced earlier, the study concluded that parental encouragement is positively correlated to the academic self-efficacy of the students. This may subsequently lead to a favourable outcome on the students’ CGPA. This implies that parental encouragement may be indirectly associated to the students’ academic accomplishment, and therefore parents should not underestimate the influence of their support on the children’s achievement. All in all, parents should recognize their role in offering support to their children in terms of their education, specifically during the COVID-19 crisis that leads to the transformation of physical classes to virtual online learning where they require the assistance from their parents in more ways than one.

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