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Comparing the Academic Motivation among Ethnic Majority and Minority Malaysian Students and Its Relation to Academic Self-Efficacy

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Abstract

The interest of this study is driven by literature on ethnic minorities' issues on the occurrence of lower academic performance that have been reported in various educational sectors. Past research have shown that academic motivation is a component that is positively related to academic self-efficacy. In Malaysia, ethnic disparity and polarization are becoming an emerging phenomenon among its students Therefore, this study wishes to begin an investigative step to conduct a comparison of academic motivation between the ethnic majority and minority students, and its relationship to academic self-efficacy. This primary aim of this research is to identify the level, differences and relationship between academic motivation and academic self-efficacy of students from ethnic majority and minority in Malaysia. This study was conducted at a local public university located in Selangor, Malaysia involving a total of 133 respondents from various faculties. A self-administered questionnaire via Google Form was used as a medium for data collection process. Academic motivation subscale was derived from Academic Motivation Scale (AMS-C 28) and Academic Self-Efficacy Scale (ASE) to measure the academic motivation (intrinsic and extrinsic) and academic self-efficacy respectively. Data was analyzed using both univariate and bivariate analysis. The result showed that both groups reported to have higher level of academic motivation, intrinsic motivation and moderate level of extrinsic level. There is no significant difference between academic motivation (intrinsic and extrinsic) and academic self- efficacy among the two ethnics. However, there is significant relationship between academic motivation and academic self-efficacy. The research concluded that the first objective and third objective was achieved but not the second objective on the differences due to limited sample. Therefore, future recommendation includes expanding the sample size to a more wider and inclusive population across higher education institutions in Malaysia.

Keywords: Academic Motivation, Academic Self-Efficacy, Ethnic Minority Students

Introduction

Malaysia is well-known as a multiracial country consisting of citizens from various race and ethnicity background. According to Senior and Bhopal (1994), ethnicity can be understood by one or more factors such as social background or mutual origins; shared

conventions and culture that are particular, kept up among ages, and lead to social identity and gathering; typical language or strict custom. As an overview, Malaysia comprises of four main ethnics which are Malays (50.3%), Chinese (23.8%), non-Malay indigenous people (11.0%) and Indians (7.1%) (Ibrahim et al., 2011). In Malaysian context, this ethnic division called bumiputera and non-bumiputera are very essential terms in the everyday social phenomenon. Based on Malaysian demographics, Bumiputera is categorized for Malays and indigenous people (mostly from the East Malaysia states i.e. Sabah & Sarawak), while Non-Bumiputera are the Indians, Chinese and the others. Ethnic minority is defined as a group smaller in size than a dominant group ethnically in a society (Isik et al., 2018). In Malaysian context, the Bumiputera group is considered the dominant group or the ethnic majority (particularly the Malays), whereas the non-Bumiputera group is the ethnic minority. Ethnic minority can be further explained in Malaysia context where most of the times it is characterised by ethnicity or diverse religious term (Zaid, 2007). In particular, this explains why some ethnic minorities can be similar but vary in a particular characteristics compared to the ethnic majorities within a society, despite the similarity economic and cultural heritage (Senior & Bhopal, 1994). Elsewhere around the world, such as in the UK, they often refer to Indian, Pakistani, Bangladeshi, Caribbean and African as the minorities (Lessard- Phillips, 2017). Meanwhile, in the US, minority and indigenous grouping include multiple distinct communities, with seven key groupings who are African Americans, Latinos (including Puerto Ricans), Asian Americans, Native Americans, Native Hawai'ians and other Pacific Islanders, Arab and other Middle Eastern Americans, and Alaska Natives (Minority Rights Group International, 2020). In the US, these groupings represent complex and unusually diverse groups that involved not only distinctive ethnicity but different religious backgrounds as well.

The interest of this study is driven by literature on ethnic minorities' issues on the occurrence of lower academic performance that have been reported in various educational sectors (Isik et al., 2018). In relation to ethnic groups, the literature shows that cross-racial interaction bring about both positive and negative encounters for ethnic minority that are being studied (Blume, 2016). It also shows that there is a biased documentation that minorities will consistently be low performing, that it became the reason for numerous educators to feel less concern towards improving the performance of minorities (Cowan, 2014). For example, concern regarding bad academic performance among African American students at universities in US have been increasing, in comparison to the majority ethnic students (Daly, 2016). In relation to that, it was also reported that African Americans have the lowest graduation attainment rate in United States at high school level (Stetser & Stillwell, 2014). However, there is a very sparse literature that can be discovered about the ethnic majority and minority students in Malaysian context. In Malaysia, ethnic disparity and polarization are becoming an emerging phenomenon among the students (Chin, 2013). Therefore, this study wishes to begin an investigative step to conduct a comparison of academic motivation between the ethnic majority and minority students, and its relationship to academic self-efficacy.

Conceptualizing Ethnicity

Ethnicity is a term that originates from Greek which means people or a community. According to Senior and Bhopal (1994), the idea of ethnicity can be said as in between simple and specific. Ethnicity can be comprehended by various factors such as same social environment; similar culture that are unique, passed on generation by generation, and lead to a community

identity; particular language or uptight beliefs. It is very essential to perceive the terms like ethnicity, nationality and race as it is often used as analogous in studies (Isik et al., 2018). However, when addressing this ethnicity term, it must not be confused with the other term like race and nationality (Senior & Bhopal, 1994). According to Betancourt and Lopez (1993), race can be defined by physical appearances in terms of the individuals facial structures, skin color and sort of hair, which is related to a population geographically and hereditary. Races are usually defined large numbers of population in favour of both sides (Senior & Bhopal, 1994). It is said to have many unclassified groups, while ethnicity has more specific to it; it innovates a different classification for every group.

Ethnicity is an occurrence purely created and accepted by people in society (Senior & Bhopal, 1993). According to Hachfeld et al (2015), ethnicity are often segregated as majority ethnic and minority ethnic in studies. For example, the study of multicultural beliefs in relation to the different ethnics' cultures are often researched in between ethnic majority group and ethnic minority (Hachfeld et al., 2015). Adding to that, ethnicity related to majority and minority can be further understood by the ethnic identity.

This could be seen in the context of various oversea countries such as UK, US, Germany, and Netherlands. In Germany, they have classified minorities as any individual who are born abroad or have parents whom not born in Germany. As for UK context, Indians, Bangladeshi, Hispanic, Pakistani and Caribbean are often perceived as minorities in their studies conducted on ethnicity (Lessard-Phillips, 2017). Netherland is one of the countries that have conducted studies on ethnics where they perceive Dutch ethnic as the majority, and based on the studies conducted most minority students are born in Turkey, Surinam, Antilles and Morroco (Severiens & Wolff, 2008).

Similar findings can be attained from local context in Malaysia. Malaysia consist of population with various ethnics and religion where they are often called as multicultural nation (Zaid, 2007). According to Liu, Lawrence and Ward (2002), they identified the ethnic minorities in Malaysia are Indians, Chinese who are economically dominant while Malays are the majority ethnic politically dominant party in a study between Malaysia and Singapore.

Just like other countries, Malaysia have undergone ethnic polarization in education sectors among students (Chin, 2013). For example, Malaysian students have been segregated into Malays and Non-Malays (Ibrahim, Muslim & Buang, 2011). However, based on current demographic data, this study would like to utilize the ethnic division using two categorical Bumiputera (majority) and Non-Bumiputera (minority). In Malaysian context, the distinction of Malaysian students is called bumiputera and non-bumiputera.

Conceptualizing Academic Motivation

Motivation is essential in educational research as it positively correlates to strong academic outcomes such as academic performance and achievements (Fortier et al., 1995; Green et al., 2006; Vansteenkiste et al., 2006). Motivation can be defined as the ultimate component that pushes an individual towards achieving their goal and maintain their behaviour (Gard, 2001). It comprises of steps and main reason which commences and leads the goal-directed behaviour including continuous and stronger effort (Elliot & Dweck, 1988; Paulsen & Feldman, 1999). Academic motivation also does not have one fixed definition.

Academic motivation can be defined as motivation to attain knowledge (Wilkesmann et al., 2012). In addition to that, there are many theories that defines motivation (Marsh et al., 2003). For example, there are four theory approaches commonly used to comprehend

academic motivation which are attribution theory, expectancy theory, self-determination theory and goal orientation theory (Opdenakker et al., 2012). Firstly, the attribution of motivation theory which defines motivation through external and internal factors which affects it. Attribution theory is known as a part of social psychology brought by Heider (Heider, 1958, as cited in Ferguson, 2017). This theory was further developed in terms of three dimensions of achievement motivation: locus, stability and controllability by (Weiner, 1985). In short, attribution theory is for the individuals to identify causal factors that enables them to understand the reasons attributes to their academic success and failures and it is these attributions that regulates an individual's motivation to repeat behaviours (Graham et al., 1997). Secondly, expectancy theory defines motivation as the outcome of student's belief on the capability of succeeding on an academic task.

The third theory which is the self-determination theory (SDT theory) of academic motivation defines motivation in terms of study approaches, academic performance and persistency (Vallerand et al., 1992; Vansteenkiste,). Many theories that have been stated earlier are two factor structures which gives the variation of the motivation behaviours as in self-made decision, unwillingly made decision or without a motivated behaviour (Heider, 1958). However, according to Deci and Ryan (1985), SDT theory can be segregated deeper towards specific factors: divided into intrinsic and extrinsic motivation, and amotivation. Meanwhile, the fourth theory, which is the goal orientation theory, defines motivation in terms of the student's effort to achieve their own goals.

Furthermore, academic motivation is often related to many education outcomes such as academic performances and better student behaviour (Gillig, 2016). In previous studies, academic motivation is interlinked to positive educational setting outcomes in terms student achievement (Chemers et al., 2001), students' performance (Mizuno, Tanaka, Fukuda, Imai-Matsumura, and Watanabe, 2011) and knowledge attainment (Garcia & Pintrich, 1992). However, many researcher found challenged academic performance to be a trending issue in educational settings especially among ethnic minorities (Isik et al., 2018).

Scholars have studied the differences of academic motivation in Malaysia among their ethnic which includes majority and minority, with a result minority scored more than majority (Wn Rafaei, 1980, as cited in Noorfaiza, 2018). In contradiction, the same scholar found different result with majority ethnic scoring higher in similar study done in a 15 years gap (Habibah & Rafaei, 1995 as cited in Noorfaiza, 2018). According to Martin (2012), the majority ethnic group scored higher intrinsic motivation than minority students. While, ethnic minority is the opposite as they scored extrinsic motivation higher than the majority ethnic students. Mizuno, Tanaka, Fukuda, Imai-Matsumura, and Watanabe (2011) states that intrinsic motivation is more associated with positive academic outcomes such knowledge attainment, better performance and continuous study behaviour. Adding to that, it shows majority have better academic performance than minority ethnic. This can be proven as a study on medical students in China states academic motivation (intrinsic and extrinsic motivation) affects students' performance and knowledge attainment (Wu et al., 2020); leads students to excel in academic success (Gillig, 2016). However, there is a statement of ethnic minority students have chances to score higher intrinsic motivation if they have a sense of belongingness to their school and it is proven by the study conducted with result that ethnic minority (African

American) students scored higher intrinsic compared to ethnic majority (European- American) students (Gillen-O'Neel et al., 2011).

In accordance to that, Warner (2008) propounds that African Americans motivational orientation (extrinsic and intrinsic) is flexible and adaptive to their situation but not fixed. This can be proven by a study shows that extrinsic motivation is a constantly changing elements as the longitudinal study conducted on African American shows obvious result where the minorities who scored higher extrinsic motivation eventually scored higher intrinsic motivation at the end (D'lima et al., 2014). In this study, we will investigate the level of academic motivation between ethnic majority and minority in the context of Malaysia.

Conceptualizing Academic Self-Efficacy

Generally, the definition of self-efficacy is viewed as individual's beliefs in their capabilities. It can be understood and explained based on bandura's (1977 & 1995) theory. Bandura explains that self-efficacy works as an operating section in an individual to successfully complete a specific task and assessing his or her capabilities required to complete the particular task. Titrek et al (2018) also states that self-efficacy is perceived as the willpower of an individual to resolve a complicated task and capability to manage for the time being. According to bandura (1977 & 1995), self-efficacy has been expanded upon elements that may impact level of effort as he considered the impact of self-efficacy on individuals. This theory gives more understanding to individuals that self-efficacy is not automatically influenced but cognitively appraised. Adding to that, bandura (1995) have identified 4 key sources to individual self-efficacy; vicarious experiences, mastery experiences, verbal persuasions, and emotional arousal.

Firstly, vicarious experiences is often derived as learning through observation experiences; live and symbolic modelling (bandura, 1977; schunk, 1991). This can be explained in terms of role model concept where individuals observation of others achievement enhance their self-efficacy to completing task step. However, if observational learning sees failure in observation, it has high chances to impact them negatively. In short, vicarious experiences impacts individual self-efficacy as it is influenced by the similarities to the model they observe which creates more impact to self-efficacy enhancement rather than a different model with less impact (Bandura, 1995). Secondly, mastery experience is defined as performance achievement by an individual. It is derived as a strong feeling of viability requires experiences with coping skills through perseverant exertion. According to Bandura (1977), he perceives that the basis of self-efficacy is these experiences which serves as essential element. Scholars have found out that when a student underperform in academic, it will eventually decrease their self-efficacy (Schunk, 1991) this is undeniable when it happens among the students first attempts. This shows when an individual attains success in academic performance it enhances their self-efficacy.

Thirdly, verbal and social persuasion, it can be identified as encouragement, recommendation and self-instructed (Bandura, 1977). This can be perceived as individual encouraged and recommended a particular skill to be attained verbally to complete a task will increase their self-efficacy. Verbal and social persuasion is said to be temporary impact on self-efficacy which constantly change their beliefs. As for the emotional arousal, in other words known as physiological indexes have an impact on individual's self-efficacy. Thus can be seen as

individuals stress level, emotional state and physical factors to impacting this element (Bandura, 1995). For example, according to Ginsberg (2016) an individual with higher stress showed a lower self-efficacy ability to complete a specific task compared to the ones with lower stress. We can perceive that individual's impacts their own efficacy based on information from this source. This shows clearly the self-efficacy's impact on an individual. This eventually contributes to the increase of interest in self-efficacy concept which leads the educational researchers to focus on academic self-efficacy (Ginsberg, 2016).

The difference between self-efficacy and academic self-efficacy is that academic is a specific construct of self-efficacy. Academic self-efficacy refers to as individual's self-beliefs on their capabilities to do well in education tasks in order to achieve educational goals (Bandura, 1977; Jungert & Rosander, 2010). In a simpler way, within the domain of self-efficacy, academic self-efficacy specifically refers to a context that one can successfully do and complete academic tasks at specific levels (Schunk, 1991). This can be seen under dimensions of academic work as it would contribute to the overall academic self-efficacy which are Comprehension, Memory, Learning Process, Reading, Teacher Student Relationship, Peer Relationship, Goal Orientation, Adjustment, Utilization of Resources and Examination, Curricular Activities and Time Management (Gafoor & Ashraf, 2007). However, in regards to this current study only Learning Process, Teacher Student Relationship, Peer Pelationship, Goal Orientation, Adjustment and Curricular Activities are selected.
In addition, there are similar terms that was used in other studies such as academic self-confidence (Karimi & Saadatmand, 2014) and students self-beliefs (Edgar, Carr, Connaughton & Celenza, 2019). According to Karimi and Saadatmand (2014), they have stated academic self-confidence is related feature to self-efficacy where it is derived as person who is able to perform task and duties with great success. This is very similar to the definition of academic self-efficacy. In contradiction to that, there are similar term to self-efficacy which is self-concept. This term is often intermixed with other self-constructs terms such as self-efficacy, self-esteem, self-perception and self-evaluating (Hattie, 1992, as cited in Marsh & Seaton, 2013). However, self-concept is more defined to self-regulated learning where individuals belief and understanding of their capabilities to control their educational domain, motivation and behaviour in a learning environment (McCombs, 1989).

There are a few empirical study conducted between academic motivation in relation to academic self-efficacy but in the opposite framework. For example, Waqar et al (2016), reported that through their findings academic motivation (intrinsic and extrinsic) as the significant predictor of academic self-efficacy. Their findings indicated that students with intrinsic motivation scored the highest academic self-efficacy. Another study, Oke et al (2016) which used similar term to academic self-efficacy which is academic confidence showed result of academic motivation positively correlates to it. The study was done between three independent variable and one dependent variable; academic motivation, satisfaction and resilience with academic confidence. Among all the factors, academic motivation scored 31.8% of variance in intrinsic motivation predicting academic confidence. Adding to that, Plecha (2002) found intrinsic and extrinsic motivation positively impact on academic self-confidence. These academic motivation variables were significant till the regression outcome. This lends support to our study for investigating the relationship between academic motivation and academic self-efficacy further among ethnic majority and minority students in Malaysia.

Linking Academic Motivation and Academic Self-Efficacy

Previous research have shown that academic motivation is a component that is positively related to academic performance (Gillig, 2016). Academic motivation defines the inner state that impacts the situation and projection of their directed behaviour towards goal achievements (Saeed & Zyngier, 2012). According to Vallerand et al (1993), he categorized academic motivation into three types: intrinsic motivation, extrinsic motivation, and amotivation. Intrinsic is defined as internal motivation to succeed. Extrinsic is external motivation to succeed. Amotivation is lack of motivation. Academic motivation is crucial when it comes to developing their psychomotor ability and result in better performance as their expected goals (Ali et al., 2011). However, past researchers have identified that there is existing differences of academic motivation among students of different colours especially in the extrinsic and intrinsic motivation (Martin, 2012). According to Isik et al (2018), the majority ethnic students typically projects higher intrinsic motivation when compared with ethnic minority students whereas the minority ethnic students' shows higher extrinsic motivation in comparison to majority ethnic students. According to Betz (1997), she stated that ethnic minority and low socioeconomic students faces higher risk as academic performance pitch in with academic self-efficacy (as cited in Macphee et al., 2013). This shows educational progresses is facilitated by the most significant component which is academic self-efficacy; it receives tremendous attention in recent years.

Academic self-efficacy and academic motivation are also inter-related (Smith, 2017). According to Bandura, academic self-efficacy is one's self-belief in their abilities which is essential to complete a task and result in better performance. Bandura's theories most likely consider students who have strong self-efficacy in completing their task will be more motivated to do the task (Schunk, 1991). In addition to that theory, in vice versa framework according to Gay (2014), minorities like African American students academic self-efficacy will be lower when their academic motivation and performances are affected; due to exterior factors such as prejudice and stereotyping that disrupts the academic motivation which is intrinsic motivation. Meanwhile, a study conducted by Defreitas (2011) states that African American students have higher self-efficacy due to bias, discrimination and stereotyping, which actually encourages academic motivation and self-efficacy in order to fight that intention. A review by Graham (1994) (as cited in Defreitas, 2011) states that the ethnic minorities like African American students have higher academic self-efficacy compared to majorities. In contrast, European Americans (the majority) are more likely to have higher academic self-efficacy than minorities as they are not facing any kind of discrimination or stereotype (Gloria & Hird, 1999). The study conducted by Mayo and Christenfield (1999) shows there is a significant difference between ethnic minority and majority. This shows there is inconsistent result in differences and relationship between academic self-efficacy and ethnic majority and minorities in educational context (Defreitas, 2011). Therefore, this study wishes to focus on academic motivation between ethnic majority and minority students in Malaysia and its relation to academic self-efficacy.

Research Framework

In SDT theory of academic motivation, extrinsic motivation, intrinsic motivation and amotivation can be explained individually (Gillig, 2016). Intrinsic motivation occurs when individual gets themselves involved in a task only when they are interested with no external reward (Gillig, 2016). Intrinsic motivation is defined as motivation that generates internally in

the individual and results in satisfaction of the progress in increasing one's capability towards completing particular academic tasks (Deci & Ryan, 2000). To be more concise, internal personal satisfaction can be attained by intrinsically motivated students as they are keen to learn, perform, and strive for academic success for that internal satisfaction (Deci & Ryan, 2000; Gottfried, 1985). Internally motivated students usually attain self-satisfactory with just completing the task. Furthermore, Gillig (2016) stated that academic intrinsic motivation indicated to be more efficient in education sector and associates positively to students better academic performance, educational attainment and more continuous effort behaviour. According to Gillig (2016), for extrinsic motivation are meant through the individuals who completes a particular academic task just to acquire the external reward, recognition, certificates or afraid the task being taken by others. Besides that, extrinsic motivation is defined as the motivation being lead to receive or block something externally of ourselves. In short, intrinsically motivated student completes an academic task for personal happiness, while the extrinsically motivated student completes an academic task to get external reward in any form (i.e., money, reputation or awards) (Walker, Greene & Mansell, 2006). This shows that there is a great difference between intrinsically motivated students and extrinsically motivated student. For example, Clickenbeard (2012) stated that intrinsically motivated students perceives external rewards as negative effect towards them and not motivating. Besides that, amotivation can be defined as no motivation in education attainment and they lack a huge sense of belongings to their educational settings (Gillig, 2016).

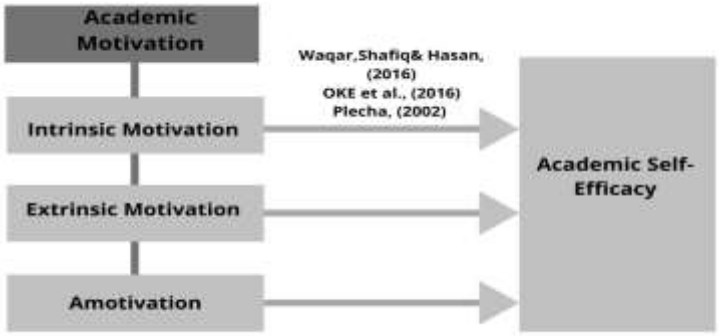

Figure 2: The relationship between Academic Motivation and Academic Self- Efficacy between Ethnic Majority and Minority students

In relation to SDT Theory and Academic Self-efficacy, this framework shows empirical study conducted between academic motivation and academic self-efficacy in educational context by three researches; (Waqar et al., 2016; Oke et al., 2016; Plecha, 2002).

Research Framework

Figure 3: The relationship between Academic Motivation and Academic Self- Efficacy between Ethnic Majority and Minority at Public University in Malaysia

Research Objectives

The general objective of this study is to investigate the academic motivation among ethnic majority and minority students and its relations to academic self-efficacy in public university in Malaysia. Specific objectives include:

i. To determine the level of academic motivation and academic self-efficacy between ethnic majority and minority students in a public university in Malaysia.
ii. To compare the levels of academic motivation and academic self-efficacy between ethnic majority and minority students in a public university in Malaysia.
iii. To determine the relationship between academic motivation and academic self-efficacy between the ethnic majority and minority students in a public university in Malaysia.

Significance of the Research

This study focuses on the comparison of ethnic majority and minority on academic motivation and identifying its relation to academic self-efficacy. This study contributes awareness to the educational settings regarding the similarities and differences that the polarized ethnic faced. It also enables them to create and implement a better strategies to resolve the differences; and enhance their academic motivation to perform better. In addition to that, by identifying the relationship between academic motivation and academic self-efficacy, educational settings can work towards academic motivation as a factor more in future to develop students' self-efficacy with diverse background.

According to Mahmood (2011), he emphasized the significance of motivation because it positively correlates with an individual's motivation and efficiency which leads them to do well in their performance in an organization setting; continuous achievement in performance leads to building self-efficacy. This could be seen as an analogy to education sector. It is crucial for researcher to know the variables influences on academic motivation for numerous reason (Urdan & Burchmann, 2018), such as enhancing their motivation, performance, self-confidence, achievement and etc of a specific ethnic groups. Based on Urdan and Burchmann (2018) study, similar studies have indicated that there are differences between ethnicity and some motivation variables which enables them to be aware of the stereotypical practices to be avoid; and also use that knowledge to design generalizable principles of motivation for the diverse ethnic groups.

Furthermore, it is recommended for the educational settings to know the level of academic motivation of their diverse ethnic students to avoid ethnic minority to be categorized as low performing in academic, enhance their motivation equally to other ethnic groups. According to UNICEF Malaysian Country report (2011-2015/6), it was stated that minorities (Indian students) have been categorized under poor performance and high drop-out rates.

Scope and Limitations

The limitations in this study are the sample size; in which the small sample obtained are not generalizable to the whole Malaysian university student population. Secondly, the ratio of male and female respondent that completed the survey are not equally represented due to the low number of male students studying at local university compared to female students. Since the research interest is academic motivation in university settings, the research scope is focused only on academic motivation, which is explained as students extrinsic, intrinsic and amotivation in attaining knowledge. While acknowledging that many other variables are

influenced by academic motivation, I determined my research scope to be the relationship between academic motivation and academic self-efficacy among ethnic majority and minority.

Research Design

The research design used in this study is cross sectional design using quantitative method. Quantitative research designs have three distinguishing characteristics which include: (1) no time fixed, (2) dependent on existing differences rather than change following involvement; and, (3) groups are selected based on existing differences not randomly (Apuke, 2017). As for cross sectional design, it identifies the correlation between two or more variables (Mann, 2003); significant difference compared between two groups by a variable. Based on this study, this design was chosen to collect data in order to measure the level of academic motivation between ethnic majority and minority students and to identify the relationship between the academic motivation and academic self-efficacy.

Sample Selection

In this study, the target population are undergraduate students at one public university in Malaysia. The undergraduate students were chosen among local majority and minority ethnics which is Bumiputra (Malays & Non-Malay Indigenous people) and Non-Bumiputra (Chinese & Indians) regardless of their courses or academic programs. The total population size obtained of undergraduate students is 14,598 (Pelajar, 2020).

The sample size obtained for this study is 220 respondents from the undergraduate students of University Putra Malaysia, Serdang. The amount was calculated using the G*Power application. This research used means; the difference between two independent means (two groups) from this application as the statistical test to determine the required sample size. Adding to that, the allocation ratio (N2/N1) of 0.65 for the two groups which is ethnic majority and minority students were based on the Malaysia population statistics 60:40 also determined the sample size through G*Power. However, due to Malaysia implemented movement control order 2020 & 2021, which is a restriction to limit the citizens movement from home, this research has limited the researcher access to the respondents. Therefore, 60% of the sample size was acquired for the data collection which is 133 respondents.

The sampling technique used in this present study was convenient sampling due to pandemic situation, financial and cost constraint. This sampling method has a nature of non-probability. In this method, respondents who is readily available are selected for the study (Leedy & Ormrod, 2015). Sample selected is focused on getting diverse students by gender; (male and female) and ethnic majority and minority. Since the sample size of the students is 133, so majority ethnic has to be represented by at least 60% bumiputra students (80 students) to 40% non-bumiputra students (53 students) based on Malaysia population statistics and then non-random selection of the students based on the demographics (age and ethnic), their readiness and requirements of the study occurred.

Instrumentation

In this research, the research was used self-administered questionnaire. There are three types of questionnaire (Demographic survey, Academic Motivation Scale and Academic Self-Efficacy Scale) that will distributed to the students. The questionnaires are adaptable from the previous research to conduct this research. Due to the suitability of this research, each variable was measured by adapting 5 likert-point scale for all the measurements within the

range 1(Strongly Disagree) to 5 (Strongly Agree). Questionnaire are divided into three sections that are section A, B, C.

- Section A: Demographic survey (Race, Gender, Ethnic & CGPA)
- Section B: Academic Motivation Scale (AMS C- 26)
- Section C: Academic Self- Efficacy Scale

Section A: Demographic Survey

The demographic survey was developed by the researcher to obtain personal and academic information considered relevant to the study. The items on this survey were answered using either a forced-choice categorical responses or short answer where appropriate. The items that were included are age, gender and ethnicity.

Section B: Academic Motivation Scale (AMS)

The Academic motivation variable is measured by the "Academic Motivation Scale" (AMS-C 28) developed and published by Vallerand et al (1992) and adapted into Turkish by Karaguven (2012) which was used in the study. This scale is used to measure the level of academic motivation among the diverse students. This 28-item instrument uses a 7-point Likert scale that measure academic intrinsic, extrinsic and amotivation; 1-Does not correspond at all until 7- Corresponds exactly. In previous study of an African American sample, Cronbach's alpha reliability coefficient of the scale ranged from .70 to .86 (Cokley et al., 2001). Through significant correlations between the Academic Self-Concept Scale and the Academic Motivation Scale, including amotivation ($r = -.47$, $p<.001$), intrinsic motivation ($r = .39$, $p< .001$), and extrinsic motivation ($r =.32$, $p < .001$); the validity of the measurement was confirmed for the context of the African American sample (Cokley et al., 2001). Since the previous study targets an African American population, and the AMS-C had been shown to be a valid and reliable measure among both African American and non-African populations, it is appropriate to use this scale as a valid measure of academic self-efficacy in this study (Cokley et al., 2001; Vallerand et al., 1992; Vallerand et al., 1993). The higher scores within a subscale indicate higher specific motivation that subscale assesses (Can, 2015). However, due to the standardizing the instruments used for this research, the instrument was shorten to 12 items and 5 likert-point scale was adapted to run the pilot study and actual study. Based on Natalya (2018), AMS scale factor analysis, the items was referred to the factor loading analysis and the items that have scored highest were selected to be included in questionnaire.

Section C: Academic Self Efficacy Scale

Academic Self- Efficacy variable was measured using Academic Self-Efficacy Scale developed by (Chemers et al., 2001). This scale comprises seven Likert-type items that range from 1 (very untrue) to 7 (very true). The scale is derived from the assumption that the efficacy of the students in each of the dimensions of academic work would contribute to the overall academic self-efficacy. The selected dimensions of academic work are Learning process, Reading, Comprehension, Memory, Curricular Activities, Time Management, Teacher Student relationship, Peer Relationship, Goal Orientation, and Adjustment (Gafoor & Ashraf, 2007). This scale shows the Cronbach's alpha reliability of .82. Due to the standardizing the instruments used for this research, the instrument was shorten to 19 items and 5 likert-point scale was adapted to run the pilot study and actual study. This items were selected based on the dimensions which was referred to expert judgement (Gafoor & Ashraf, 2007) and its suitability with operational definition of the variables in this research.

Pilot Study

A pilot study can be defined as the small study among small scale respondents to test research protocols, questionnaires and other research techniques in preparation for larger study (Hassan, Schattner & Mazza, 2006). It is also conducted for the reliability of the data used which is referred to the Cronbach's Alpha value. A minimum 30 respondents were to use for the pilot study to make sure the respondents could comprehend the questionnaires before the actual study conducted. The data collection was conducted with 30 undergraduate students at another public university for pilot study purpose. Undergraduate students from random courses were included in the pilot study. The purpose of conducting the pilot study in another setting was to test the feasibility of an approach that is prepared to be used in actual study (Hassan, Schattner & Mazza, 2006) and also avoid the contamination of data from same respondents (Leon, Davis & Kraemwr, 2010). The data obtained was used to make sure the questionnaire compatibility to be measure among Malaysian students and will be help to conduct actual study. The results of the pilot study were summarized in Table 1. Overall, the scales used for the questionnaire are acceptable and reliable based on the Cronbach's alpha values.

Table 1
Result of Pilot Study

Scales	**Reliability Coefficient (Cronbach's Alpha Values)**
	Pilot study (n=30)
Academic Motivation	.892
Academic Self-Efficacy	.839

Data Validity and Reliability

Validity can be defined as measure what is proposed to be estimated. In a research, many types of validity are discussed; face validity, content validity, construct validity, criterion validity and reliability (Taherdoost, 2016). For this research, face validity and content validity used to determine the validation of the items and the questionnaire. Face validity means how much a measure seems, by all accounts, to be identified with a specific construct, in the judgment of non-experts, for example, test takers and delegates of the legal system (Taherdoost, 2016). For face validity, it is measured when researcher found the questionnaire and finds it relevant and suitable just by going through it and looking at the appearance of the questionnaire. As for the content validity, it means characterized as "how much questions in an instrument reflect the content universe to which the instrument will be generalized (Straub, Boudreau et al., 2004). In this research, for content validity, its validity measurement includes literature review and look up with the evaluation by expertise; with procedure to be present with expertise when validating.

Testing for reliability is also important as it translates to the consistency across the items of the instrument. Reliability is defined as the degree to which a measurement of occurrence gives stable and consistent result (Carmines & Zeller, 1979). The reliability of the questionnaire can be determined through the Cronbach's Alpha coefficient value obtained by the independent and dependent variable of the research. This research used IBM SPSS version 2016 to create the outcome of Cronbach's Alpha result. The Cronbach Alpha, a can range

between 0 (no consistency) to 1 (complete consistency) to determine the reliability. There are four range for reliability: excellent reliability (0.90 and above), high reliability (0.70-0.90), moderate reliability (0.50-0.70) and low reliability (0.50 and below) (Hinton et al.,2004). Generally, for research it is advised that reliability should be equal to or above 0.60 (Straub et al., 2004). Below, the table 2 shows the operational definition generated for this research and the references from past studies to show its content validity.

Table 2
The operational definition and its references

Variables	Operational Definition	Item	References
Academic Motivation	Academic motivation is measured at the level of students motivation to learn in educational settings	12	Karaguven (2012)
Academic Self-Efficacy	Academic self-efficacy is judgements of self-perceived competence which are essentially cognitive in nature. It is measured at ability level of task-specific of the students.	19	Chemers et al (2001)

Data Analysis

Data analysis is the process understanding of analytical insights and theoretical explanations that are derived from the data without bias (Edwards-Jones, 2014). For this study, IBM SPSS version 2016 software program was used to analyse the data obtained. The antecedent variables in the current study was respondents' background (i.e. race, gender, ethnic, and CGPA). The independent variable was academic motivation; extrinsic motivation and intrinsic motivation. In line with the objective and aim of the study, all of the variables were treated on dependent variable (i.e. academic self-efficacy) for determining the correlations. Data analyses for the current study were done by using three statistical measurements (i.e. Exploratory Data Analysis, Univariate Analysis and Bivariate Analysis).

Exploratory Data Analysis

Exploratory data analysis is the first step to conduct analysis before proceeding to other statistical test (Komorowski et al., 2016). Its primary aim is to identify the normality of data for this research. The normality of the data was also conducted to determine whether the data collected has normal distribution. The normality test can be measure using the skewness and kurtosis measurement. As for the skewness's statistics, the result should be obtained in the range of -2 to 2, while for kurtosis's statistics the result should be between -7 to 7. The table 3 below showed that this research has normal data distribution.

Table 3
The result of normality test

Variable	Skewness		Kurtosis	
	Statistic	Std Error	Statistic	Std Error
Academic Motivation	-.493	.210	-.463	.417
Academic Self-Efficacy	.096	.210	1.201	.417

Note: Std. Error = Standard Error

Univariate Analysis

Univariate Analysis involves analysis of dependent variable (Zumbo & Chan, 2014) which emphasizes on descriptions. Descriptive statistics provide of frequency, percentage, mean and standard deviation of the variables in this research. Univariate analysis was used to generate univariate data to achieve the 1st Objective which is to determine the level of academic motivation (IV) and academic self-efficacy (DV) among ethnic majority and minority. In Univariate analysis, the level of the dependent variable is identified through the division of scales calculated into level (low, moderate and high) where it is determined by the mean or standard deviations obtained to be classified into the level. In univariate analysis, independent t-test is involved where it determines whether there is significant difference between the means of two independent groups aligned with 2nd Objective. In this research, the level of academic motivation (Intrinsic and Extrinsic motivation) (IV) and academic self-efficacy (DV) among ethnic majority and minority is compared. The independent t-test gives assumes variances of the two group in this research where gives the outcome of F-statistics and a significant value (p-value) to compare it.

Bivariate Analysis

Pearson's correlation analysis primary aim is to analyse the bivariate data aligned with 3rd Objective. In this Pearson's correlation test analysis, the relationships between independent variable, and the dependent variable will be determined. The correlation between two variables was reflected to what extend the variables are related. Through the test of Pearson's correlation analysis, the relationships between the independent variable (academic motivation) and dependent variable (academic self-efficacy) were determined.

Results and Discussion

The first part of the results presents the demographic profile of the respondents obtained and analysed which is gender, race, ethnic and CGPA. Descriptive analysis was tested to provide frequency, percentage, mean, and standard deviation based on this research variable. Adding to that, inferential statistics was used also to get data from independent t-test in terms of F-value (Levene test), t-value and p-value. The following tables show the summarised analysis result obtained from respondents demographic profile.

Table 4.1
Result of Gender among respondents

Variable	Race	Frequency	Percentage
Gender	Male	44	33.1%
	Female	89	66.9%

Table 4.2
Result of CGPA among respondents

Variables		Frequency	Percentage
CGPA	First Class Honour (3.75- 4.00)	56	42.1%
	Second Class Upper Honour (3.00- 3.74)	37	27.8%
	Second Class Lower Honour (2.00 – 2.99)	38	28.6%
	Third Class Honour (1.0 – 1.99)	2	1.5%

Table 4.3
Result of Races & Ethnic among respondents

Ethnic	Race	Frequency	Percentage
Bumiputra (Majority)	Malay	69	51.9%
	Others (Bumiputera non-Malay)	12	9.0%
	Total	81	60.9%
Non-Bumiputra (Minority)	Chinese	26	19.53%
	Indian	26	19.53%
	Total	52	39.1%

Based on 133 respondents participated in this study, majority were female respondents (66.9%). Since this study examines their academic motivation and academic self-efficacy, their current Cumulative Grade Point Average (CGPA) was also analysed descriptively. Majority of them were 42.1% (56 respondents) were at first-class honour level, followed by 27.8% (37 respondents) were at second class upper honour and 28.6% (38 respondents) second class lower honour. The remaining 1.5% (2 respondents) were from the third class honour.

In terms of their race and ethnicity, majority of the respondents are represented by Malay 51.9% in the majority group, and balanced number of Chinese and Indian in the minority group. The sample representation used was based on the population context of Malaysia. According to the Malaysian population's statistics, Malaysia comprised of ethnic majority of 60% and ethnic minority of 40%. This proportion is based on Malaysian context that was set for the respondent used in this research. The result shows 81 respondents at 60.9% were ethnic majority which is known as Bumiputra in Malaysia context on ethnicity. While, the ethnic minority known as Non-Bumiputra shows result of 52 respondents participated with

39.1% respondents. According to the proportion of Malaysia population being set, the data collection results in slight difference in terms in the ratio (N2/N1) = 0.65 of majority (Bumiputra) and minority (Non-Bumiputra) participating in the research. In the next section, results are discussed based on the objectives of the study.

The first objective is to determine the level of academic motivation and academic self-efficacy between ethnic majority and ethnic minority students at a public university in Malaysia. For academic motivation (AM), it was divided into intrinsic motivation (IM) and extrinsic motivation (EM).

Levels of Academic Motivation

Academic motivation was measured by using the AMS-26 scale questionnaire. It was a 5 points likert scale which consists of 12 items. The score range of this scale is between 1 and 5. The highest score represent higher level of academic motivation. The scale score was calculated using standard deviation by dividing into three ranges (low, medium, and high). The ranges used are 1-2.33 (low), 2.34- 3.67 (medium) and 3.68- 5 (high).

Among 133 respondents, 82% (109 respondents) scored high level of academic motivation and 18% (24 respondents) remaining respondents scored medium level of academic motivation. Based on table 7, the mean score for the level of motivation is 4.21 with standard deviation of 0.55. When referred to the range calculated, UPM undergraduate students have high level of academic motivation. In comparison of the mean for both ethnic majority (Bumiputra) and minority (Non-bumiputra) students, both group scored high level of academic motivation with the mean score of 4.28 with standard deviation of 0.51 and 4.10 with standard deviation of 0.60 but the ethnic majority (Bumiputra) scored slightly higher compared to ethnic minority (Non-Bumiputra) (Please refer to Table X and Y).

Under the academic motivation, among ethnic majority (Bumiputra) 88.9% (72 respondents) respondents scored high level of academic motivation, followed by 11.9% (9 respondents) at medium level. While, among ethnic minority (Non-Bumiputra) respondents, 71.2% (37 respondents) scored high level of academic motivation while the remaining 28.8% (15 respondents) scored medium level of academic motivation

Table 7
Result of Descriptive Analysis of AM, IM, EM among UPM Respondents

Variables	Mean	Std	Frequency	Percentage
AM	4.21	0.55		
1 - 2.33 (Low)				
2.34 – 3.67 (Medium)			24	18%
3.68 – 5 (High)			109	82%
IM	4.14	0.69		
1 - 2.33 (Low)			4	3.0%
2.34 – 3.67 (Medium)			27	20.3%
3.68 – 5 (High)			102	76.7%
EM	4.28	0.57		
1 - 2.33 (Low)				
2.34 – 3.67 (Medium)			21	15.8%
3.68 – 5 (High)			112	84.2%

Note: Std =Standard Deviation

Table 8
Result of Descriptive Analysis of AM, IM, EM among Ethnic Majority

Variables	Mean	Std	Frequency	Percentage
AM	4.28	0.51		
1 - 2.33 (Low)				
2.34 – 3.67 (Medium)			9	11.1%
3.68 – 5 (High)			72	88.9%
IM	4.20	0.61		
1 - 2.33 (Low)			1	1.2%
2.34 – 3.67 (Medium)			16	19.8%
3.68 – 5 (High)			64	79%
EM	4.35	0.53		
1 - 2.33 (Low)				
2.34 – 3.67 (Medium)			9	11.1%
3.68 – 5 (High)			72	88.9%

Note: Std =Standard Deviation

Table 9
Result of Descriptive Analysis of AM, IM, EM among Ethnic Minority

Variables	Mean	Std	Frequency	Percentage
AM	4.10	0.60		
1 - 2.33 (Low)				
2.34 – 3.67 (Medium)			15	28.8%
3.68 – 5 (High)			37	71.2%
IM	4.04	0.80		
1 - 2.33 (Low)			3	5.8%
2.34 – 3.67 (Medium)			11	21.2%
3.68 – 5 (High)			38	73.1%
EM	4.16	0.61		
1 - 2.33 (Low)				
2.34 – 3.67 (Medium)			12	23.1%
3.68 – 5 (High)			40	76.9%

Note: Std =Standard Deviation

Levels of Academic Self Efficacy (ASE)

Academic Self- Efficacy variable was measured using Academic Self-Efficacy Scale developed by (Chemers et al., 2001). This scale comprises seven Likert-type items that range from 1 (very untrue) to 7 (very true). The scale is based on the idea that the efficacy of the students in each of the dimensions of academic work would contribute to the overall academic self-efficacy. Based on the levels, majority of the respondents 53.9% (73 respondents) scored medium level of academic self-efficacy and 44.4% (59 respondents) scored high level of academic self-efficacy. Only 0.8% (1 respondent) scored low level of academic self-efficacy. The mean score of the level of academic self-efficacy 3.60 with standard deviation of 0.456. According to the

range calculated, UPM respondents scored medium level of academic self-efficacy. As for the ethnic majority (Bumiputra) respondents, they scored medium level of academic self-efficacy with the mean score of 3.58 with a standard deviation of 0.456, while ethnic minority (Non-Bumiputra) students scored medium level of academic self-efficacy with mean score 3.62 with standard deviation of 0.460. Among ethnic majority (Bumiputra) respondents, 56.8% (46 respondents) scored medium level of academic self-efficacy. 42% (34 respondents) scored high level of academic self-efficacy and 1.2% (1 respondent) scored low level of academic self-efficacy. Meanwhile, among ethnic minority (Non-Bumiputra) students 51.9% (27 respondents) scored medium level of academic self-efficacy and remaining 48.1% (25 respondents) scored high level of academic self-efficacy.

Table 10
Result of Descriptive Analysis of ASE among UPM Respondents, ethnic

Variable (ASE)	Mean	Std	Frequency	Percentage
UPM Respondents	4.10	0.60		
1 - 2.33 (Low)				
2.34 – 3.67 (Medium)			15	28.8%
3.68 – 5 (High)			37	71.2%
IM	4.04	0.80		
1 - 2.33 (Low)			3	5.8%
2.34 – 3.67 (Medium)			11	21.2%
3.68 – 5 (High)			38	73.1%
EM	4.16	0.61		
1 - 2.33 (Low)				
2.34 – 3.67 (Medium)			12	23.1%
3.68 – 5 (High)			40	76.9%

Comparing the levels of AM (IM and EM) and ASE

To fulfil the second objective of this study in order to compare the levels of academic motivation and academic self-efficacy between ethnic majority and minority students at a public university in Malaysia, an independent T-test was conducted. The result from t-test analysis shows that Levene's Test for equality of variances tests the hypothesis that the two population variances are equal. Based on table 11, the Levene statistics for intrinsic and extrinsic results F= 3.737 and F= 0.921 with a corresponding level of significance is large ($p > 0.05$) for both intrinsic and extrinsic motivation. Thus, the assumption of homogeneity of variance was not breached and the assumed equal variances t-test variances was referred to evaluate the null hypothesis of equality of means.

Table 11
Result of Independent T-test on AM (IM and EM) and ASE

Variables	F-value	t-value	P-value	Mean difference
Intrinsic Motivation (IM)	3.737	1.296	0.197	0.1579
Extrinsic Motivation (EM)	0.921	1.938	0.055	0.1948
Academic Self-Efficacy (ASE)	0.585	-0.471	0.638	-0.038

The result shows that there is no significance difference between ethnic majority (Bumiputra) and ethnic minority (Non-Bumiputra) in both intrinsic and extrinsic motivation, where, t (df =131) = 1.296, p=0.197 and t (df= 131) = 1.938, p= 0.55. The means values shows that both ethnic majority (Bumiputra) and ethnic minority (Non-Bumiputra) scored not much difference in both intrinsic and extrinsic; where in intrinsic, ethnic majority (Bumiputra) mean (M= 4.1996) than ethnic minority (Non-Bumiputra) (M= 4.0417) with mean difference (0.1579). While, in extrinsic ethnic majority (Bumiputra) scored mean with slight higher mean (M= 4.3519) than ethnic minority (Non-Bumiputra) (M=4.1571) with mean difference (0.1948). However, the mean difference value does not create a significant difference that determines differences at motivation level as there is not much difference identified. This finding is not aligned with the past research which identifies that there is significant difference of academic motivation among different ethnic students especially in the extrinsic and intrinsic motivation (Martin, 2012). According to Isik et al (2018), the majority ethnic students shows higher intrinsic motivation than the minority students. While, the minority ethnic students presents higher extrinsic motivation when compared to majority ethnic students. Similar to that, past research under the Malaysian context, Noorfaiza (2018) identifies there is a significant difference between ethnic majority and minority where ethnic majority to score higher level of intrinsic motivation compared to ethnic minority; in contrast to that, ethnic minority to score higher level of extrinsic motivation compared to ethnic majority.

Adding to that, the table also shows the Levene statistics for academic self-efficacy result F= 0.558 and the p-value obtained is large ($p > 0.05$). Based on that, the equal variance assumed t-test statistic was referred to evaluate the null hypothesis of equality of means. The result shows that there is no difference between ethnic majority (Bumiputra) and ethnic minority (Non- Bumiputra) in academic self-efficacy, where, t (df= 131) = -0.471, p=0.638 ($p > 0.05$). The means values shows that both ethnic majority (Bumiputra) and ethnic minority (Non-Bumiputra) scored not much difference in academic self-efficacy, where, ethnic majority (Bumiputra) (M= 3.58) than ethnic minority (Non-Bumiputra) (M= 3.62) with mean difference (-0.038). This aligns with the past research where both the majority and minority have similar higher academic self-efficacy level and there is no significant difference between majority and minority group which is the European American and African American. This result adds to the inconsistent past result that was identified in the review done by (Graham, 1994, as cited in Defreitas, 2011). This varied results on the literature related to academic self-efficacy in educational context can be caused by many reasons such as the ambiguous situations like facing discrimination and stereotype; which could impact both positively and negatively to ethnic minority as noted in background of study (Gay, 2004; Defreitas, 2011).

Relationship between Academic Motivation and Academic Self-Efficacy

The third objective seek to determine the relationship between academic motivation and academic self-efficacy among the ethnic majority and minority Malaysian students. The Pearson's Correlation test was done between academic motivation and academic self-efficacy of UPM respondents and results was presented in Table 12.

Table 12
Result of Correlation between AM and ASE

Variables	**Academic Self-Efficacy**	
	R	p
Academic Motivation	0.507	0.000

Based on Table 12, the p-value obtained is less than 0.001, and therefore results showed here is a significant relationship between academic motivation and academic self-efficacy (r=0.507, p=0.000). Support findings mention that, academic motivation is a predictor of academic self-efficacy (Waqar et al., 2016), so there is significant relationship between academic motivation and academic self-efficacy. Thus, past findings aligns with current findings and explains that academic motivation correlates to academic self-efficacy with the result that Academic motivation scored the most compared to other variables in that study; scores 31.8% of the variance in the prediction of academic self-efficacy (OKE et al., 2016). This validates the report of Akinsola et al (2007); Akinlana (2013) that students with higher academic motivation will be able to do task given confidently (academic self-efficacy).

Discussions & Summary of Findings

Based on the results presented, the findings indicated overall, UPM respondents scored high level of academic motivation, intrinsic motivation, extrinsic motivation and moderate level of academic self-efficacy. However, no significant difference is shown on the variable intrinsic motivation, extrinsic motivation and academic self-efficacy between ethnic majority (Bumiputera) and minority (Non-Bumiputera). There are several implications that can be drawn from these findings. In this current research, the result identified academic motivation to be correlated with academic self-efficacy. This result highlight the importance of the possible links between these two variables that can warrant further research.

Although this research shows no significant different between academic motivation (intrinsic and extrinsic) and academic self-efficacy among ethnic majority and minority, the University can be aware and comprehend ethnic difference in university student academic motivation which will give promising insight for reducing racial differences. This will enhance university student motivation and academic performance in diverse setting. This could contribute to university and faculty to work on learning strategies where the university lecturer can evaluate variety aspects of academic motivation among students by managing the methods used in this research to study the different ethnics' academic motivation and academic self-efficacy. They can use this information and plan ahead for classroom activities, online workshop, teaching content based on students feedback through this survey according to the different ethnic's requirement. Past research have indicated that there are several factors that might have caused the inconsistent result of not obtained significant difference between academic motivation and academic self-efficacy. It can be seen in the research done in the 90s by (Mayo & Christenfeld, 1999) found significant difference between those variables but when similar research done in 20s by (Defreitas, 2011), there is no significant difference between the variables. Future researches are advised to identify other compounding factors that might influence these variables; also by expanding the motivational constructs.

Conclusion

In overall, this research aims to identify the differences between academic motivation (Intrinsic and extrinsic) and academic motivation and also to identify the relationship between academic motivation and academic self-efficacy among ethnic majority and minority students in public university in Malaysia. The result obtained shows that majority of the respondents scored high level of academic motivation. In addition to that, specifically by ethnic, both majority (bumiputra) and minority (non- bumiputra) scored high level of academic motivation. The result of this research also found that there was no significant difference academic motivation (intrinsic and extrinsic motivation) and academic self-efficacy among ethnic majority and minority students in UPM, Serdang. Future research may seek to extend this study by increasing the sample size for a more robust investigation on this topic.

References

Akinlana, T. (2013). Academic optimism, motivation and mental ability as determinants of academic performance of secondary school students in Ogun State, Nigeria. *European Journal of Business and Social Sciences, 1*(12), 68-76.

Akinsola, M. K., Tella, A., & Tella, A. (2007). Correlates of academic procrastination and mathematics achievement of university undergraduate students. *Eurasia Journal of Mathematics, Science and Technology Education*, *3*(4), 363-370. https://doi.org/10.12973/ejmste/75415

Ali, Z., Tatlah, I. A., & Saeed, M. (2011). Motivation and students behavior: A tertiary level study. *International Journal of Psychology and Counselling*, *3*(2), 29-32.

Apuke, O. (2017). Quantitative research methods: A synopsis approach. *Kuwait Chapter of Arabian Journal of Business and Management Review, 6*(11), 40-47. https://doi.org/10.12816/0040336

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84,* 191–215. http://dx.doi.org/10.1037/0033-295x.84.2.191.

Bandura, A. (Ed.). (1995). *Self-efficacy in changing societies.* Cambridge University Press. https://doi.org/10.1017/CBO9780511527692

Betancourt, H., & Lopez, S. R. (1993). The study of culture, ethnicity, and race in American psychology. *American Psychologist, 48*(6), 629-637. https://doi.org/10.1037/0003-066X.48.6.629

Blume, A. K. (2016). *Diversity-related experiences and academic performance among ethnic minority college students* (Doctoral dissertation, Order No. 5089). https://digitalcommons.usu.edu/etd/5089

Can, G. (2015). Turkish version of the academic motivation scale. *Psychological Reports: Employment Psychology & Marketing, 116*(2), 388-408. https://doi.org/10.2466/14.08.PR0.116k24w

Carmines, E. G., & Zeller, R. A. (1979). Reliability and validity assessment. *Quantitative Applications in the Social Sciences, 17*. SAGE Publications, Inc.
https://dx.doi.org/10.4135/9781412985642

Chemers, M. M., Hu, L., & Garcia, B. F. (2001). Academic self-efficacy and first-year college student performance and adjustment. *Journal of Educational Psychology, 93*(1), 55-64. https://doi.org/10.1037//0022-0663.93.1.55

Chin, Y. (2013). Ethnic socialization: A case of Malaysian Malay and Chinese public universities students experiences. *International Journal of Social Science and Humanity, 3*(6), 582-585.

Clickenbeard, P. R. (2012). Motivation and gifted students: Implications of theory and research. *Psychology in the Schools*, *49*(7), 622-630. https://doi.org/10.1002/pits.21628

Cokley, K. (2007). Gender differences among African American students in the impact of racial identity on academic psychosocial development. *Journal of College Student Development, 42*(5), 480–486.

Cowan, P. C. (2014). Improving African American student outcomes: Understanding educational achievement and strategies to close opportunity gaps. *The Western Journal of Black Studies, 38*(4), 209-217.

Daly S., S. L. (2016). Ethnic differences in self-efficacy at Southern Adventist University. *Journal of Interdisciplinary Undergraduate Research, 8*(1), 3rd ser., 1-26. https://knowledge.e.southern.edu/jiur/vol8/iss1/3

Deci, E. L. (1985). Part IV: Applications and I mplications. In R. M. Ryan (Ed.), *Intrinsic Motivation and Self-Determination in Human Behavior* (First Edition ed., pp. 3-367). Springer Science & Business Media. https://doi.org/10.1007/978-1-4899-2271-7

Deci, E. L., & Ryan, R. M. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychological Association, 55*(1), 68-78. https://doi:10.1037110003-066X.55.1.68

Defreitas, S. (2011). Differences between African American and European American first-year college students in the relationship between self-efficacy, outcome expectations, and academic achievement. *Social Psychology of Education, 15*, 109 – 123. https://doi.org/10.1007/s11218-011-9172-0

D'Lima, G. M., Winsler, A., & Kitsantas, A. (2014). Ethnic and gender differences in first-year college students' goal orientation, self-efficacy, and extrinsic and intrinsic motivation. *The Journal of Educational Research, 107*(5), 341-356. https://doi.org/10.1080/00220671.2013.823366

Edgar, S., Carr, S. E., Connaughton, J., & Celenza, A. (2019). Student motivation to learn: is self-belief the key to transition and first year performance in an undergraduate health professions program. *BMC Medical Education*, *19*(1), 111. https://doi.org/10.1186/s12909-019-1539-5

Edwards-Jones, A. (2014) Qualitative data analysis with NVIVO. *Journal of Education for Teaching: International Research and Pedagogy, 40*(2), 193-195. https://doi.org/10.1080/02607476.2013.866724

Elliott, E. S., & Dweck, C. S. (1988). Goals: An approach to motivation and achievement. *Journal of Personality and Social Psychology, 54*, 5-12. https://doi.org/10.1037/0022-3514.54.1.5

Ferguson, H. L. (2017). *Mindset, academic motivation, and academic self-efficacy as correlates of academic achievement among undergraduate students in communication sciences and disorders programs* (Doctoral dissertation). https://digitalcommons.andrews.edu/cgi/viewcontent.cgi?article=2915&context=dissertations

Fortier, M. S., Vallerand, R. J., & Guay, F. (1995). Academic motivation and school performance: Towards a structural model. *Contemporary Educational Psychology, 20*, 257-274. https://doi.org/10.1006/ceps.1995.1017

Gafoor, K., & Ashraf, M. (2007). Academic Self Efficacy Scale. *Technical Report.* http://dx.doi.org/10.13140/RG.2.1.3930.2640

Garcia, T., & Pintrich, P. R. (1992). Critical thinking and its relationship to motivation, learning strategies, and classroom experience. *American Psychological Association,* 2-31.

Gard, G. (2001). Work motivating factors in rehabilitation: A brief review. *Physical Therapy Reviews, 6*(2), 85-89. https://doi.org/10.1179/ptr.2001.6.2.85

Gay, G. (2004) Navigating marginality en route to the professoriate: graduate students of color learning and living in academia, *International Journal of Qualitative Studies in Education, 17*(2), 265-288 doi: http://dx.doi.org/10.1080/09518390310001653907

Gillen-O'Neel, C., Ruble, D. N., & Fuligni, A. J. (2011). Ethnic stigma, academic anxiety, and intrinsic motivation in middle childhood. *Child Development, 82*(5), 1470-1485. https://doi.irg/10.1111/j.1467-8624.2011.01621.x.

Ginsberg, D. M. (2016). Differences in academic self-efficacy and motivation in Irish and American college students (Doctoral dissertation). *Proquest Central/*

Gloria, A. M., & Hird, J. S. (1999). Influences of ethnic and nonethnic variables on the career decision-making self-efficacy of college students. *The Career Development Quarterly, 48*(2), 157–174. https://doi.org/10.1002/j.2161-0045.1999.tb00282.x

Gottfried, A. E. (1985). Academic intrinsic motivation in elementary and junior high school students. *Journal of Educational Psychology, 77*(6), 631-645. https://doi.org/10.1037/0022-0663.77.6.631

Graham, S., Weiner, B., & Sahar, G. (1997). An attributional analysis of punishment goals and public reactions to O.J. Simpson. *Personality and Social Psychology Bulletin,23*(4), 331-346. https://doi.org/10.1177/0146167297234001

Green, J., Nelson, G., Martin, A. J., & Marsh, H. (2006). The causal ordering of self-concept and academic motivation and its effect on academic achievement. *International Education Journal*, *7*(4), 534-546. https://files.eric.ed.gov/fulltext/EJ854309.pdf

Hachfeld, A., Hahn, A., Schroeder, S., Anders, Y., & Kunter, M. (2015). Should teachers be colorblind? How multicultural and egalitarian beliefs differentially relate to aspects of teachers' professional competence for teaching in diverse classrooms. *Teaching and Teacher Education, 48*, 44-55. https://doi.org/10.1016/j.tate.2015.02.001

Hassan, Z. A., Schattner, P., & Mazza, D. (2006). Doing a pilot study: Why is it essential? *Malaysian Family Physician, 1*(2-3), 70–73.

Heider, F. (1958). *The psychology of interpersonal relations.* Wiley.

Ibrahim, R., Muslim, N., & Buang, A. H. (2011). Multiculturalism and higher education in Malaysia. *Procedia - Social and Behavioral Sciences, 15*, 1003-1009. https://doi.org/10.1016/j.sbspro.2011.03.229

Isik, U., Tahir, O. E., Meeter, M., Heymans, M. W., Jansma, E. P., Croiset, G., & Kusurkar, R. A. (2018). Factors influencing academic motivation of ethnic minority students: A review. *SAGE Open, 8*(2). https://doi.org/10.1177/2158244018785412

Jungert, T., & Rosander, M. (2010) Self-efficacy and strategies to influence the study environment, *Teaching in Higher Education, 15*(6), 647-659. https://doi.org/10.1080/13562517.2010.522080

Karaguven, M. H. U. (2012). The adaptation of Academic Motivation Scale to Turkish. *Educational Sciences: Theory & Practice, 12*(4), 2611 – 2618.

Karimi, A., & Saadatmand, Z. (2014). The relationship between self-confidence with achievement based on academic motivation. *Kuwait Chapter of Arabian Journal of Business and Management Review, 4*(1), 210-215.

Komorowski, M., Marshall, D. C., Salciccioli, J. D., Crutain, Y. (2016). Exploratory data analysis. In: *Secondary Analysis of Electronic Health Records.* Springer Open. https://doi.org/10.1007/978-3-319-43742-2_15

Leedy, P. D., & Ormrod, J. E. (2019). *Practical research*. Holt, Rinehart, and Winston.

Leon, A. C., & Davis, L. L., & Kraemer, H. C. (2010). The role and interpretation of pilot studies in clinical research. *Journal of Psychiatric Research, 45*(X), 626-9. https://doi.org/10.1016/j.jpsychires.2010.10.008

Lessard-Phillips, L. (2015). Exploring the dimensionality of ethnic minority adaptation in Britain: An analysis across ethnic and generational lines. *Sociology, 51*(3), 626-645. https://doi.org/10.1177/0038038515609030

Liu, J. H., Lawrence, B., Ward, C., & Abraham, S. (2002). Social representations of history in Malaysia and Singapore: On the relationship between national and ethnic identity. *Asian Journal of Social Psychology, 5*(1), 3-20. https://doi.org/10.1111/1467-839X.00091

Mahmood, S. (2011). An Empirical Investigation on Knowledge Workers Productivity in Telecom Sector of Pakistan. *Information Management and Business Review, 3*(1), 27-38. https://doi.org/10.22610/imbr.v3i1.914

Mann, C. J. (2003). Observational research methods. Research design II: Cohort, cross sectional, and case-control studies. *Emergency Medicine Journal*, *20*(1), 54-60. http://dx.doi.org/10.1136/emj.20.1.54

Marsh, H., Craven, R., Hinkley, J., & Debus, R. (2003). Evaluation of the big-two-factor theory of academic motivation orientations: An evaluation of jingle-jangle fallacies. *Multivariate Behavioral Research, 38*(2), 189-224. https://doi.org/10.1207/S15327906MBR3802_3

Martin, E. (2012) Using self-determination theory to examine the motivation of ethnic college students. *Ursidae: The Undergraduate Research Journal at the University of Northern Colorado*,2(1), https://doi: http://digscholarship.unco.edu/urj/vol2/iss1/13

Mayo, M. W., & Christenfeld, N. (1999). Gender, race, and performance expectations of college students. *Journal of Multicultural Counseling and Development, 27*(2), 93–104. https://doi.org/10.1002/j.2161-1912.1999.tb00217.x

McCombs, B. L. (1989). Self-regulated learning and academic achievement: A phenomenological view. In *Self-regulated learning and academic achievement* (pp. 51-82). Springer.

Mizuno, K., Tanaka, M., Fukuda, S., Imai-Matsumura, K., & Watanabe, Y. (2011). Relationship between cognitive function and prevalence of decrease in intrinsic academic motivation in adolescents. *Behavioral and Brain Functions*, *7*(1), 4. https://doi.org/10.1186/1744-9081-7-4

Natalya, L., & Purwanto, C. V. (2018). Exploratory and confirmatory factor analysis of the Academic Motivation Scale (AMS)–Bahasa Indonesia. *Makara Human Behavior Studies in Asia, 22*(1), 29-42. https://doi.org/10.7454/hubs.asia.2130118

Safawi, N. M. (2018). Students' academic motivation in Malaysia higher education institutions: A cross-ethnic comparison. *Kulliyah of Education International Islamic University Malaysia,* 1-81.

Oke, K., Ayodele, K. O., Aladenusi, O., & Oyinloye, C. A. (2016). Academic Motivation, Satisfaction, And Resilience as Predictors of Secondary School Students' Academic Confidence in Ogun State, Nigeria. *IOSR Journal of Research & Method in Education 6*(6), 59-64.

Opdenakker, M. C., Maulana, R. & den Brok, P. (2012). Teacher-student interpersonal relationships and academic motivation within one school year: Developmental changes and linkage. *School Effectiveness and School Improvement, 23*(1), 95-119. doi: https://doi.org/10.1080/09243453.2011.619198

Plecha, M. (2002). The impact of motivation, student-peer, and student-faculty interaction on academic self-confidence. AERA New Orleans. https://files.eric.ed.gov/fulltext/ED464149.pdf

Saeed, S., & Zyngier, D. (2012). How motivation influences student engagement: A qualitative case study. *Journal of Education and Learning*, *1*(2), 252-267. https://doi.org/10.5539/jel.v1n2p252

Smith, M. L. (2017). *Relationships among race, racial microaggressions, academic motivation, and academic self-efficacy* (Doctoral dissertation). Texas A&M University-Commerce.

Schunk, D. H. (1991). Self-efficacy and academic motivation. *Educational Psychologist, 26*, 207-231.

Senior, P., & Bhopal, R. (1994). Ethnicity as a variable in epidemiological research. *BMJ: British Medical Journal, 309*(6950), 327-330. https://www.jstor.org/stable/29724335

Severiens, S., & Wolff, R. (2008) A comparison of ethnic minority and majority students: social and academic integration, and quality of learning. *Studies in Higher Education, 33*(3), 253-266. https://doi.org/10.1080/03075070802049194

Stetser, M. C., & Stillwell, R. (2014). Public high school four-year on-time graduation rates and event dropout rates: School years 2010-11 and 2011-12. *First Look. NCES 2014-391.* National Center for Education Statistics.

Straub, D., Boudreau, M. C., & Gefen, D. (2004). Validation guidelines for is positivist research. Communications of the Association for Information Systems, 13(24), 380 – 427. https://doi.org/10.17705/1CAIS.01324

Taherdoost, H. (2016). Sampling methods in research methodology: How to choose a sampling technique for research. *International Journal of Academic Research in Management, 5*(2), 18-27. https://doi.org/10.2139/ssrn.3205035.

Titrek, O., Cetin, C., Kaymak, E., & Kasikci, M. (2018). Academic motivation and academic self-efficacy of prospective teachers*. Journal of Education and Training Studies, 6*(11a), 77 – 87. https://doi.org/10.11114/jets.v6i11a.3803

Urdan, T., & Bruchmann, K. (2018) Examining the academic motivation of a diverse student population: A consideration of methodology*. Educational Psychologist, 53*(2), 114-130. https://doi.org/10.1080/00461520.2018.1440234

Vallerand, R. J., Pelletier, L. G., Blais, M. R., Briere, N. M., Senecal, C., & Vallieres, E. F. (1992). The academic motivation scale: A measure of intrinsic, extrinsic, and amotivation in education. *Educational and psychological measurement*, *52*(4), 1003-1017.

Vallerand, R. J., Pelletier, L. G., Blais, M. R., Briere, N. M., Senecal, C., & Vallieres, E. F. (1993). On the assessment of intrinsic, extrinsic, and amotivation in education: Evidence on the concurrent and construct validity of the academic motivation scale. *Educational and Psychological Measurement, 53*(1), 159-172. https://doi.org/10.1177/00131644930530010

Vansteenkiste, M., Lens, W., & Deci, E. L. (2006). Intrinsic versus extrinsic goal contents in self-determination theory: Another look at the quality of academic motivation. *Educational Psychologist*, *41*(1), 19-31.

Walker, C. O., Greene, B. A., & Mansell, R. A. (2006). Identification with academics, intrinsic/extrinsic motivation, and self-efficacy as predictors of cognitive engagement. *Learning and Individual Differences, 16*(1), 1-12. https://doi.org/10.1016/j.lindif.2005.06.004

Waqar, S., Shafiq, S., & Hasan, S. (2016). Impact of procrastination and academic motivation on academic self-efficacy among university students. *IOSR Journal of Humanities and Social Science, 21*(6), 7-13

Warner, C. B. (2008). The role of ethnicity and grade level on the motivational orientation in urban african american middle school students. *Journal of Urban Learning, Teaching, and Research*, *4*, 135-147.

Weiner, B. (1985). An attributional theory of achievement motivation and emotion. *Psychological Review, 92*(4), 548–573. https://doi.org/10.1037/0033-295X.92.4.548

Wu, H., Li, S., Zheng, J., & Guo, J. (2020) Medical students'motivation and academic performance: The mediating roles of self-efficacy and learning engagement, *Medical Education Online, 25*(1). https://doi.org/10.1080/10872981.2020.1742964

Zaid, A. (2007) Multiculturalism and religio-ethnic plurality, *Culture and Religion, 8*(2), 139-153. https://doi.org/10.1080/14755610701424008

Zumbo, B., & Chan, E. (2014). Validity and validation in social, behavioral, and health sciences. In *Social Indicators Research Series, 54*. Springer.