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THE ASSOCIATION BETWEEN STUDENTS' LEISURE ACTIVITIES ON WEEKENDS DURING MOVEMENT CONTROL ORDER (MCO) AND DEMOGRAPHIC CHARACTERISTICS

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ABSTRACT

A movement control order implemented by Malaysia's government due to the COVID-19 pandemic had strictly controlled the education system, where virtual classes had taken over the physical classes. This study aimed to describe the students' weekend leisure activities during the movement control order in Universiti Teknologi MARA Pahang. A simple random sampling technique was conducted by distributing online survey questionnaires to a sample of 213 students. Descriptive statistics, Chi-Square and Fisher Exact test were used in data exploration and association determination between students' activities and demographic characteristics. It was found that majority of the students did not make a weekend to-do list and slept more than four hours. Most of the females, 53% enjoyed their weekend, but 51% of males did not. From all of the students, 31% spent less than one hour with their family, while all students surfed their social media every day. The study concluded that seven activities were influenced by gender, four activities were influenced by their program, and two were influenced by their current semester.

1. Introduction

The coronavirus pandemic (COVID 19) sparked major changes, especially in economic, education, and people's lifestyles. It was a challenging time for many people to live everyday life in a time of uncertainty due to the spread of the COVID 19 outbreak. The Movement Control Order (MCO) regulations implemented to curb the spread of the viruses meant almost all students had to spend their precious time at home. Since students were required to stay home during the pandemic, work and study patterns changed, and they underwent online learning at home. Spending days, weeks, and months at home with limited resources and a lack of social contact undoubtedly can affect students' psychological health. Along with the cause of the COVID 19 pandemic, a large number of outdoor activities and events were cancelled or postponed. Nevertheless, there are still many options for leisure and fun activities to enjoy. This is crucial because maintaining physical and mental health is a matter that needs to be taken seriously, especially in a critical situation like the COVID 19.

According to Hirschmann (2020), a survey conducted among 1100 Malaysian leisure activity respondents during the MCO period showed that 40% of respondents spent their time exercising while 38% of respondents spent time watching videos or playing games online. It is important to know how students attempt to stay optimistic and their efforts to avoid learning anxiety and how they managed to adapt to the new learning methods introduced when the pandemic occured Therefore, the present research aimed to describe the students' weekend activities during the MCO in Universiti Teknologi MARA (UiTM) Pahang Campus and determine the association between the students' weekend activities during MCO and the demographic characteristics. This study involved constructing a comprehensive literature review on weekend leisure activities and focussed on the demographic characteristics and students' weekend activities during MCO.

2. Literature Review

Since the outbreak and the Malaysian government imposing MCO, institutions of higher learning had to switch to online teaching in ensuring that the learning process could resume. Online learning is vital for the teaching and learning process, in addition to face-to-face methods and other traditional methods in which learning activities are conducted through the use of web-based technology (Carliner, 2004: Mokhtar, 2020). According to Dhawan (2020) and Rahman (2020), online learning during PMCO provided an advantage in independent learning and developing new skill sets that lead to lifelong learning. Self-regulated learning is a critical factor to online learning success (Wong, 2019). During the MCO, both lecturers and students faced several challenges in ensuring continuity in the online learning process (Kamarudin, 2020).

It is very interesting to figure out how students retained a positive attitude and kept away from learning anxiety and what strategies they used to manage a new learning method when learning in this emergency situation (Baloran, 2020). The psychological side of the students when experiencing online learning also needs to be considered because to have great mental health is a must for students, especially in the current learning situation (Wajdi et al., 2020). Besides all the benefits offered by online learning, students still find it less engaging than other forms of learning, as it is not student-friendly and not interactive enough to make students feel more connected through platforms such as Facebook, WhatsApp, WeChat, and email (Taat & Francis, 2020). Alternatively, students will find time to release their stress from online learning, especially on weekends.

Students can still do many activities at home during isolation and quarantine due to a pandemic, such as studying, playing indoor games, writing, watching television series and movies, checking

into online classes, learning new languages and listening to music. On weekdays, students spend many hours in online classes, engaging in assignments or any activity related to their academics. But on weekends, students tend to choose their leisure activities. Many previous studies have defined leisure time; for example, studies by Brightbill (1960) and Smigel (1963), defined leisure activities as all activities performed by a person when they are not working. Research by Massimini and Carli (1998) stated that the activities that are entertaining and relaxing might be classified as leisure activities. Larson and Verma (1999) mentioned that voluntary program, self-motivation, self-initiative, regulation, and organization could be considered leisure activities. However, studies by Kleiber, Walker and Mannell (2011), Ellis and Witt (1991), and Neulinger (1974) on two-dimensional typology and definitional point (external or internal) leisure has been studied by other researchers.

According to Meeras (2010), people have an opportunity to choose how much time they want to spend after working hours. A type of leisure activity that can be done is active relaxation activity such as repairing something that exists at home, repairing motorcycles, precarious leaking, and others. Secondly, productive relaxation is doing an activity that can add knowledge or skill to the students' course, like making dishes or cake. The third is passive relaxation, like reading, listening to music, writing, and others. Leisure time is important because it can help increase physical fitness, emotional well-being, mental and spiritual health, self-awareness, and self-esteem (Binder & Freytag, 2013), especially during MCO. Based on Pavlova and Silbereisenn (2015), with the widespread availability of television and other mass media, electronic media use (both passive activities such as watching television and listening to music and more mentally challenging activities such as internet surfing, video games, and communicating with others) is the most popular leisure activity among adolescents. Not only that, the leisure choices are also influenced by multiple factors such as facilities, financial constraints, and the support by surrounding people such as parents, teachers, peers, and community.

As mentioned previously, this research aimed to study students' weekend leisure activities during MCO. For the seven activities which have an association with gender, it can be deduced that there is a statistically significant relationship between gender and the seven activities. For the four activities which have an association with their enrolled program, it is assumed that there is a statistically significant difference between students from the different programs in spending their time with reading, doing homework, eating and drinking, as well as planting tress.

The seven activities that are related to gender are spending hours on indoor and outdoor games, doing homework, surfing social networking sites, shopping, cooking, and planting. Spending their time reading, doing homework, eating and drinking, and planting are the activities related to their program. Meanwhile, spending time eating and drinking, and planting trees are related to current semester students.

3. Methodology

As a cross-sectional research, which involved analysing data obtained from a subset of a sample at a single point in time. A group of 213 students from five different programs was selected randomly among 16 programs offered in UiTM Jengka, Pahang as the respondents of this study. In obtaining the most accurate output that fits the objectives, descriptive statistics, Chi-Square and Fisher Exact tests were performed to analyze the data. This study's early stage involved constructing a comprehensive literature review on the topic concerned. Next, a set of survey questions was finalized appropriate to the target group by including questions regarding demographic characteristics and students' weekend leisure activities during MCO. There were four categorical variables included under the demographic section, which were age, gender, program enrolled and their current semester. Meanwhile, the weekend activities section was formed as ordinal

questions (less than 1 hour, less than 2 hours, less than 3 hours, less than 4 hours, more than 4 hours, and none). The ordinal questions were related to activities, such as 1) watching television, 2) reading, 3) playing computer or electronic games, 4) doing homework or assignment, 5) surfing social networking sites, 6) spending time with family, 7) playing outdoor games, 8) shopping, 9) eating or drinking, 10) cooking, 11) working part-time, 12) volunteering, 13) sleeping, 14) planting and 15) painting. The nominal questions asked whether 1) students enjoy the weekend during MCO, and 2) students prepare a weekend to-do list during MCO. The data was collected from the responses received once the survey questions were distributed among the students.

The data obtained was then recorded and appropriately analyzed by performing screening, exploring, and cleaning using R software version 4.0.2. The frequencies and distributions of the data were determined, and data analysis was carried out by conducting descriptive statistics, Chi-Square and Fisher Exact tests. Besides, the data was explored by performing descriptive statistics and illustrating graphs of each variable to explain the demographic characteristics of students' location elicited on the weekend activities during MCO. Then, the percentages and frequencies of categorical variables were identified. The associations between the students' weekend leisure activities during MCO and demographic characteristics were determined using a Chi-Square and Fisher Exact test. Both tests of independence evaluate if some categorical variables are correlated with some populations (Turhan, 2020). The formula for computing the Chi-Square test statistics is as follows:

$$\chi^2 = \sum_{i=1}^{n} \frac{(O_{r,c} - E_{r,c})^2}{E_{r.c}}, \quad (1)$$

where *n* is the number of cells in the table, $O_{r,c}$ is the observed frequency number at the level *r* of variable A, and level *c* at the variable B. The $E_{r,c}$ is the expected frequency number at the level *r* of the variable A and the level *c* of the variable B.

Fisher Exact test is used for a categorical variable with at least one of the categories giving values less than 5. This test showed that conditional on the margins of the table, 'a' is distributed as a hypergeometric distribution with *a+c* draws from a population with a+b successes and *c+d* failures. The probability of obtaining such a set of values is given by:

$$p = \frac{\binom{a+b}{a}\binom{c+d}{c}}{\binom{n}{a+c}} = \frac{\binom{a+b}{b}\binom{c+d}{d}}{\binom{n}{b+d}} = \frac{(a+b)!(c+d)!(b+d)!}{a!b!c!d!n!} \quad (2)$$

where *(n k)* is the binomial coefficient and the symbol ! indicates the factor operator. Like other tests of independence, these two tests assume that the individual observations are independent.

4. Results

The result section will discuss two parts, data exploration and association determination. The data exploration section represents the results obtained for demographic characteristics and students' leisure weekend activities during MCO in the frequency table and bar plot. The association determination section represents the association between the students' weekend leisure activities during MCO and demographic characteristics by using Chi-Square and Fisher Exact tests.

Data Exploration

Descriptive statistics were performed using a frequency table and bar plot for the demographic characteristics and students' leisure weekend activities during MCO. Based on Table 1, most students were females, with 132 (62%), while males were 81 (38%). Most of the respondents, involving 111 (52%) students were aged between 20 to 21 years old and 102 (48%), were between 18 to 19 years old. The majority were currently in semester 1 to semester 3 with 200 (94%) students, while 13 (6%) were in semester 4 to semester 6. The highest percentage, 75%, with 159 students was recorded from the field of science and technology, while 25% with 54 were from the field of social science.

Table 1
Frequency table for demographic characteristics

Variables		***Frequencies***	***Percentage***
Gender			
	Male	81	38
	Female	132	62
Age			
	18 to 19	102	48
	20 to 21	111	52
Semester			
	Semester 1 to 3	200	94
	Semester 4 to 6	13	6
Programme			
	Science & Technology	159	75
	Social Science	54	25

Figures 1 and 2 depict the level of to-do list and enjoyment by gender. The figures show that the majority of females, 80 (65%) and males, 63 (78%), did not make a weekend to-do list. Most of the females, 53% enjoyed their weekend, but 51% of males did not. The finding for weekend sleeping hours by students in Figure 3 shows that majority, 102 (48%) students slept more than four hours during MCO. However, 36 (17%) students only slept for less than one hour, that is, 21 of them were females and 15 were males. Among these students, the majority, 20 (56%), were from the second semester.

Figure 4 depicts the percentage of hours that students spent with families on weekends throughout MCO. It reveals that 68 students (32%), which was the majority of them, spent not more than one hour for their families. Besides, there were students who allocated more than four hours for their families, which is only 44 students (21%) among all. Nevertheless, there were no students that did not make time with their families on weekends during MCO. Figure 5 shows the overall number of students involved in specific activities on weekends during MCO based on gender. According to the figure shown, there were 163 students who played indoor games on weekends during MCO, involving 93 females and 70 males. Besides, the result also showed that all students allocated their time to do homework and surf social media sites, where both activities shared a similar total number of male and female students, which is 81 and 132 respectively. Moreover, online shopping and outdoor games were the most common activities on weekends during MCO, involving 159 out of 213 students (75%). Following that, cooking was also recorded as one of the common activities among them, where 152 students (71%) voted for it. In addition, only a small number of respondents, 38 (18%), worked a part-time job during the weekends during MCO.

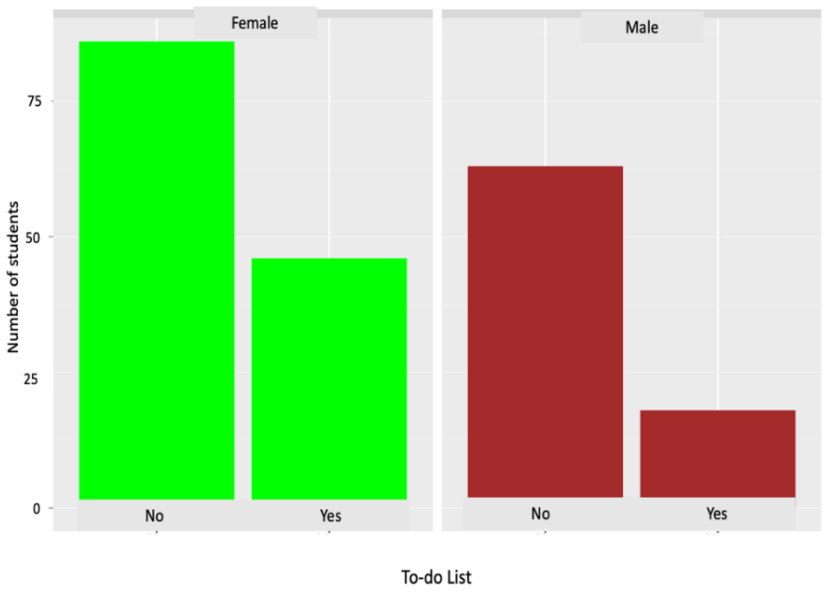

Figure 1. The to-do list level by gender

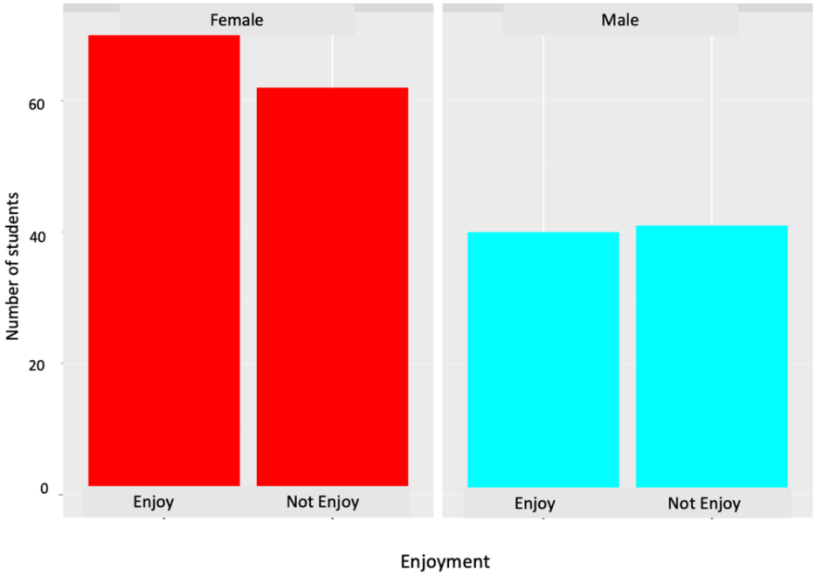

Figure 2. The enjoyment level by gender

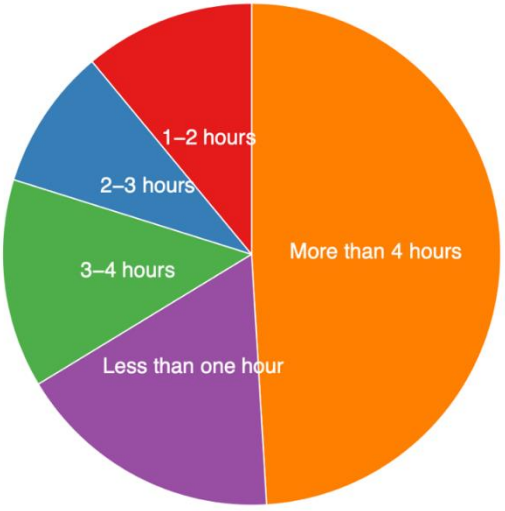

Figure 3. The total number of weekend sleeping hours during MCO

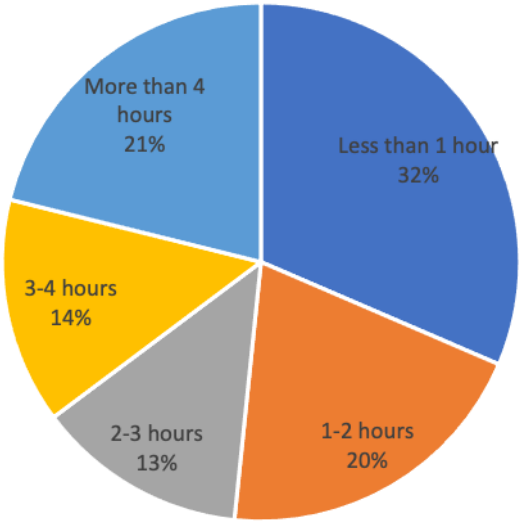

Figure 4. The percentage of the weekend spending hours with family during MCO

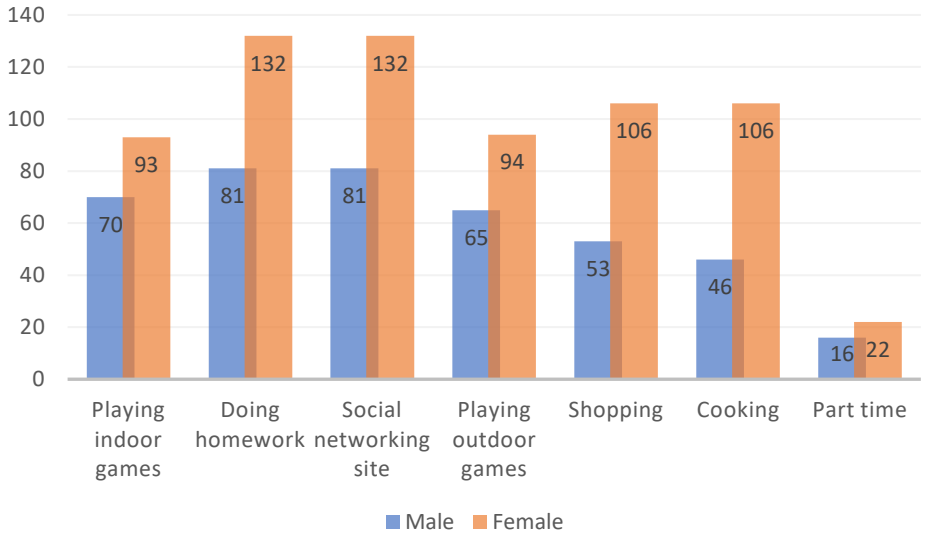

Figure 5. The total number of students involved in weekend activities during MCO based on gender

Figure 6 depicts the overall number of students involved in specific activities on weekends during MCO based on their program in the Science & Technology and Social Science faculties. The findings showed that 28 of 38 students who worked a part-time job during weekends of MCO were from the faculty of Science & Technology. Besides, online shopping and cooking were the most common activities done by the majority of students of both faculties. Moreover, most students of Science & Technology spent their weekends during MCO playing outdoor games whereas most students of Social Science did not. Furthermore, all students of both programs allocated their time for doing homework and surfing social media sites on weekends during MCO.

Association Determination

The association determination between students' activities and demographic characteristics was performed using a Chi-Square and Fisher Exact tests. The null and alternative hypotheses are as follows:

H_0: The variables of interest are independent.

H_1: The variables of interest are associated.

Table 2 shows the Chi-Square test of independence value between 14 variables of students' activities and demographic characteristics together with a *p*-value. The variables with a significant *p*-value of less than 0.05 are considered to have been associated with the demographic characteristics. Based on the table, there is no activity that has an association with age, where all the *p*-values are greater than 0.05 for all 15 activities. Meanwhile, there are several activities that have an association with gender, program, and part. The study showed that:

1. Playing indoor, doing homework, social media, playing outdoor, shopping, cooking and planting activities were influenced by gender,
2. Reading and doing homework activities were influenced by program, and
3. Eating and drinking, and planting activities were influenced by program and current semester.

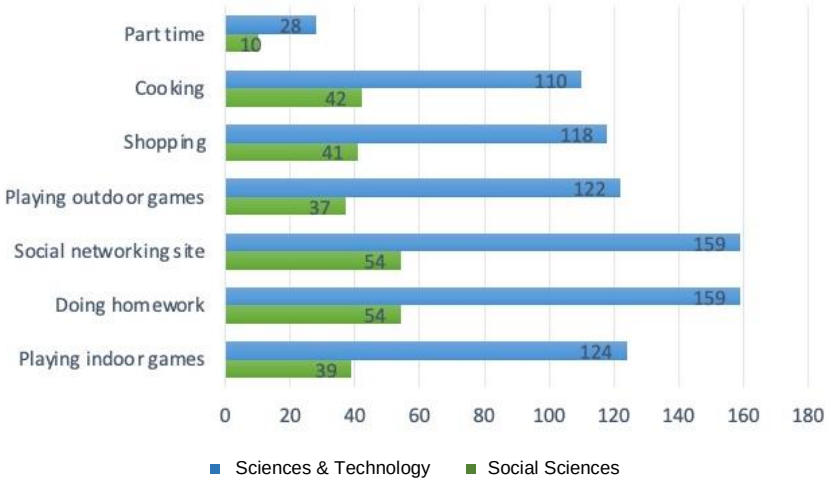

Figure 6. The total number of students involved in weekend activities during MCO based on program

For the seven activities which have an association with gender, it can be deduced that there is a statistically significant relationship between gender and the four activities. This means that there is a statistically significant difference between male and female students in their spending hours for indoor and outdoor games, doing homework, surfing social networking sites, shopping, cooking and planting activities. For the four activities which have an association with their program, it is assumed that there is a statistically significant difference between students from the different programs in spending their time for reading, doing homework, eating and drinking, as well as planting. Besides, both activities have an association with part or number of semesters. It is inferred that there is a statistically significant difference between students from the various parts in spending time for eating and drinking, and planting.

The differences of the seven activities associated with gender are clearly portrayed in Figure 6. Based on the stack bar plot, there are different divisions between male and female students in their time spent for all the seven activities. These proved that there is an association between gender and the seven activities. Figure 6 also depicts the most favoured activity for male students was online shopping, while female students tended to spend most of their time doing homework and surfing social media sites.

Table 2
Chi-Square and Fisher Exact test of independence for each variable with p-value

Variables	*p-value of Chi-Square and Fisher Exact test*			
	Gender	Age	Program	Part
Watching Television	0.1078[a]	0.3437[a]	0.5774[a]	0.1502[a]
Reading	0.0709[a]	0.8947[a]	**0.0434[a]**	0.1582[a]
Indoor games	**0.0207[a]**	0.5943[a]	0.4826[a]	0.7417[a]
Outdoor games	**0.0000[b]**	0.6163[b]	0.1426[b]	0.4521[b]
Doing homework	**0.0000[b]**	0.9281[b]	**0.0000[b]**	0.1500[b]
Social networking sites	**0.0031[b]**	0.2970[b]	0.4903[b]	0.5320[b]
Family	0.3762[b]	0.2899[b]	0.8713[b]	0.1122[b]
Shopping	**0.0458[b]**	0.1564[b]	0.9174[b]	0.2568[b]
Eating and drinking	0.9633[b]	0.0809[b]	**0.0212[b]**	**0.0000[b]**
Cooking	**0.0005[b]**	0.0222[b]	0.5720[b]	0.0567[b]
Working part-time	0.8383[b]	0.9520[b]	0.6359[b]	0.5421[b]
Sleeping	0.5542[a]	0.6745[a]	0.5515[a]	0.6131[a]
Volunteering	0.1282[b]	0.9782[b]	0.4234[b]	0.9803[b]
Planting	**0.0047[b]**	0.1383[b]	**0.0000[b]**	**0.0224[b]**

[a] Chi-Square [b] Fisher Exact

5. Discussion

Due to the enforcement of MCO by the government of Malaysia during the COVID-19 pandemic, all higher education institutions were required to conduct classes through online platforms. This effort was to curb the spread of the virus and prevent students from being left behind from the syllabus timeline. During MCO, people were restricted from performing many social, economic, sports, and other activities outside the house for months. Hence, this study aimed to investigate the activities carried out by students on weekends throughout the MCO period. A set of survey questions was distributed among the students of UiTM Pahang, but many of them refused to respond. This commonly happens in conducting a survey, but the findings of this study are dependable to determine the most preferred activity performed by students on weekends during MCO. There were 231 students who participated in this study where a large number of them were females, 132 (62%) while males were 81 (38%).

Based on the findings, female students preferred to do their homework and surf social media sites during their leisure time on weekends during MCO, while male students spent more time on online shopping. Meeras (2010) classified these types of activities as leisure activities, passive relaxation, as well as productive relaxation. Moreover, Binder and Freytag (2013) described that leisure time activities are essential in our daily lives, especially during MCO. It enhances physical fitness and improves our spiritual, mental and emotional well-being, self-esteem, and self-awareness. According to Pavlova and Silbereisem (2015), the most favoured leisure activities among youngsters are things that are available through television, mass media, and electronic media such as passive activities like listening to music and watching television to more mentally challenging activities like playing video games and browsing the internet, and interacting with others.

As the association between students' activities and demographic characteristics was investigated, the study found that age was not associated with any activities performed by students on weekends during the MCO period. This indicates that the total time spent for 14 activities by all students of different ages was equal. Furthermore, there were seven activities associated with gender, including planting, cooking, shopping, playing outdoors, surfing social media sites, doing

homework, and playing indoors. In other words, these activities were influenced by gender, as the total time spent by female and male students for the activities were distinct. Nevertheless, both female and male students had equal total time spent on other activities.

Next, the findings revealed that there were two activities associated with their program, which were doing homework and reading. It indicates that the program influences these activities. Students from Science & Technology and Social Science had different total time spent doing homework and reading due to the various subjects being taught in the respective programs. Besides, the study also found that activities such as planting, eating and drinking were associated with the program and current semester. Thus, students from both programs and the different current semester had spent different total time for planting, eating and drinking activities. There is a Faculty of Plantation and Agrotechnology in UiTM Pahang, and hence, their students will spend more time on planting than students of other faculties. Overall, all 231 students had equal total time spent on sleeping and spending time with their families.

6. Conclusion

As the new normal is due to the spread of COVID-19, the usual students' activities have been much affected. This study was conducted to describe the students' weekend leisure activities during the MCO, in which the number of places students normally visited and the usual activities they were involved in became limited.

The obtained results have shown that most of the students did not have a to-do list on weekends during MCO because the usual activities had been limited. Almost half of the respondents slept for more than four hours on weekends. This is due to their hectic weekdays, which were compact with online classes and completing the given tasks or assignments. Hence, they prefered to get enough and proper rest before going through the same routine for the next week. From the statistical analysis, it can be deduced that the students' activities on weekends are associated with their gender, program, or the current semester they were enrolled in.

The pandemic caused online learning to continue for more than a year. The enjoyment of online classes is different from physical classes. Therefore, lecturers should be considerate when giving tasks or assignments to be completed within the weekdays, without interfering with the weekends, so that students can do leisure activities on weekends and revive before joining the online classes. The study was focused only on the students in UiTM Jengka, Pahang, hence future works can be broadened across other public universities.

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