

Psychology Impact of Design-Based Students during Covid-19 Pandemic in Malaysia

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ABSTRACT

COVID-19 Pandemic has created a new-norm society throughout the world. This is also impacting the architectural education conduct of university students. The aim of this study is to assess psychological impact of design-based students during Covid-19 pandemic. The objective of the study is to measure 18 psychological impact factor level of UiTM students' using five points likert scale during the pandemic. The major findings indicate varies factors hierarchical level of impacts on design-based students and remedial actions should be taken to minimize the impacts.

Keywords: Psychological impact, UiTM student, Design-based student, Covid-19, public health

INTRODUCTION

The coronavirus Covid-19 pandemic is affecting 210 countries and territories around the world. Globally, as of 12 June 2021, there have been 174,918,667 confirmed cases of Covid-19, including 3,782,490 deaths (WHO, 2021). The pandemic is transboundary and transmit from human to human. As of in Malaysia to date, there are 652,204 infected cases with 3844 deaths. This has resulted major threats to public health and socio-economy of the country (Muturaman& Al Haziazi, 2020). In mitigating the problems, few measures were taken by the related authority such as movement control order, new-norm standard operating procedures and vaccinations. These measures have affected and affected a huge physically, mentally and economically impact to all level of societies.

The novel coronavirus 2019 (Covid-19) infections rate are growing faster throughout the country. The recent situation inflicts huge pressure on the Malaysia government, public healthcare system, security system and the general population. The pandemic has not resultant of the loss of lives, but it is significantly impact all aspect of way of living. The coined terms new normal is no longer new, for the past one and half years since 2020 it has become the 'normal' normal. For the one who has not contracted with Covid-19 and the one who were infected, the impacts are intolerable psychological affliction of varies degree of severity. (Khan et al., 2020; Talevi et al., 2020). The reported cases of suicide are more alarming in Malaysia (Elengoe, 2020). Even though the vaccination and past year experiences in handling the pandemic has easing out in majority of the world, Malaysia is still struggling to cope and situation is getting worse in the third wave of the pandemic. The sporadic spread of the virus within few waves and mutations makes this contagious pandemic influence the psychology of all level of society, including students. Psychological data from Malaysia Ministry of Health reported the impact of the pandemic to all level of people in the society (Rahman et al., 2021). However, to date, there is no specific research was conducted on the psychology impact of design-based students who required physical learning environment in the studios, workshops or labs (Condliffe, 2017). The required learning

environment such as the present of the studio lecturers for critic session or consultation is crucial in design development, skill transfer using tools in workshops or lab are absence due to temporary closure by the university. Like all sectors, the tertiary education sector in particular has been severely affected due to total lockdown and closure of tertiary institutions in Malaysia. Since March 18, 2020, the government closed all education sectors which include schools, colleges, and universities via Malaysia government Movement Control Order (MCO) or full lockdown (Nadzir et al., 2020).

Higher Education Institutions in Malaysia consist of public universities, private university or university college, polytechnics and community colleges (Abdullah et al., 2020). Among the Higher Education Institutions all over Malaysia, Universiti Teknologi MARA (UiTM) is the largest. Since its establishment UiTM has produced 890,334 graduated and the current student's populations are 189,008,17,969 staffs and conducting 498 programs throughout its 35 campuses. The university have 24 faculties, where 13 of it is Science & Technology stream which include Faculty of Architecture, Planning and Surveying (FSPU) where this study is focused. Design-based students in FSPU are located in Puncak Alam campus with four Centre of Studies for Architecture, Town & Regional Planning, Interior Architecture and Landscape Architecture. The total students' populations in FSPU Puncak Alam campus are about 1800 design-based students. Having a vast number of design-based students, the faculty are hoping a secure learning environment for the students without uncompromised design studio learning process due to the current pandemic.

For university design-based students, measure was taken where teaching and learning are only done via online learning (Adnan & Anwar, 2020). This measure further added problems to design-based students when design studio and lab works need to be done online as well (Mukhtar et al., 2020). Design studio subject which components require physical exercise such site measurement, observation analyses and group critic sessions proved to be difficult to be done virtually. Besides, the challenges to design-based students are not only physical or tangible measures, but more on the mental health due to the new-norm education conduct (Adedoyin & Soykan, 2020). Hence, led to psychological impacts to carry on their learning process. The most common psychological reactions to a pandemic and new-norm learning conduct are fear and anxiety-related symptoms, such as panic, worry and emotionally distress (Peteet, 2020). For design-based students, the pandemic and new-norm learning conduct is exposing them to long-term stressors, which could impact their wellbeing and lead to burnout due to prolonged pandemic duration. Early mitigation and psychological crisis interventions are already in place in certain sectors such as medical frontliners but nothing really much being done in education sectors besides temporary closing of schools and universities. Effort and collective remedial psychological impact need to be address by the universities through tele-counselling and hotline services to the students (Yolak et al., 2019).

RESEARCH METHODOLOGY

Respondents of the Study

A total of 471 respondents that are design-based students from Faculty of Architecture, Planning & Surveying, UiTM Puncak Alam were selected randomly to take part in the questionnaire. The respondents were students from Centre of Studies for Architecture, Centre of Studies for Interior Architecture, Centre of Studies for Landscape Architecture and Centre of Studies for Town & Regional Planning. They ranged from 22-24 years old.

Sampling Method

The sampling method of this study is using Taro Yamane formula (Adam, 2020). The total number of students population in FSPU Puncak Alam is 1800 (N). The confidence interval is at 95% which is 0.05 (e). the sample (n) calculations are as below:

$$n = \frac{N}{Ne^2 + 1}$$
$$n = 1800 / 1800 \times 0.0025 + 1$$
$$n = 1800 / 7$$
$$n = 342.857$$

However, the number of samples responded of the survey is at 471, thus the number of responded samples is higher than required sample (n)

Instruments of the Study

This study was conducted for UiTMPuncakAlam's design-based students who are currently taking their bachelor's degree and master's degree. The targeted respondents of this study were 471 students which was randomly picked to answer a survey questionnaire in Google Forms. The main instrument used in this study was survey questionnaire entitled "Psychological Impact of UiTM Students during Covid-19 Pandemic" using Google Forms link. This method was more effective rather than interviewing them face-to-face. Not only it saves time, energy and cost, but it becomes easier to gather data. It consists of 18 impact factor questions that respondents need to answer and they are five points likert scale closed ended questions and 1 open-ended questions for their opinion on the level of psychological impact during the pandemic. This data was collected from 6th June 2021 until 13th June 2021.

Table 1: Likert scale measurement level

5	4	3	2	1
High Impact	Moderate Impact	Low Impact	No Impact	Not Sure

Data Collection Procedure

Firstly, the questionnaire link was disseminated to respondents through WhatsApp application, and they were provided with clear instructions and directions on how to answer the questionnaire. Moreover, respondents' answer will be strictly confidential and to add that collected data would only be used for research purposes only. All respondent is required to fill in their e-mail, centre of study, level of study and location of study during the pandemic. Then, the respondents will answer all the compulsory questions and submit the answer in the provided link. Respondent will receive a short notification in Google Forms prompting that their answers have been recorded once they answered all the required question. It took less than five minutes to answer the questionnaire.

Data Analysis Method

This study used a quantitative method in analysing the data. The data are analysed using Statistical Package for Social Science (SPSS) software. The SPSS software is chosen because it has a wide variety of functions to analyse the collected data. Frequency analysis and descriptive analyses are used to analyse the collected data from 471 respondents.

RESULT ANALYSIS

Demographic Data of the Respondents

The questionnaire consists of three demographic variables with 471 respondents from Faculty of Architecture, Planning & Surveying, UiTMPuncakAlam campus. The faculty housed four centres of studies consist of Centre of Studies for Interior Architecture, Centre of Studies for Town & Regional Planning, Centre of Studies for Interior Architecture & Centre of Studies for Landscape Architecture. Centre of Studies for Architecture run two programs in PuncakAlam campus, Bachelor of Science in Architecture (Hons.) and Master of Architecture, meanwhile Centre of Studies for Town & Regional Planning run Bachelor of Town & Regional Planning (Hons.), Centre of Studies for Interior Architecture run Bachelor of Interior Architecture (Hons.) and Centre of Studies for Landscape Architecture run Bachelor of Landscape Architecture (Hons.) program. Findings on Centre of studies for Architecture recorded as the highest response rate with 277 responses, thus the lowest response is from Centre of Studies for Landscape Architecture with 48 responses. Majority of the respondents are from undergraduate's studies with 398 responds; hence the remaining are from postgraduate's studies. The location of studies for most of the students are at Central Region (Selangor and Federal Territory), whilst the East Malaysia (Sarawak and Sabah) recorded as the lowest (Table 2).

Table 2: Demographics

Variables	N	Percentage (%)
Centre of Studies		
Centre of Studies for Architecture	277	59
Centre of Studies for Interior Architecture	95	20
Centre of Studies for Town & Regional Planning	51	11
Centre of Studies for Landscape Architecture	48	10
Level of Studies		
Undergraduates	398	85
Postgraduates	73	16
Location of Studies		
Central Region-Selangor & Federal Territory (offline & online)	225	48
PuncakAlam campus (offline or online)	106	23
Southern Region-Johor, Melaka, Negeri Sembilan (Online)	64	14
East Cost- Kelantan, Terengganu & Pahang (online)	42	9
Northern Region-Perak, Kedah, Pulau Pinang & Perlis (offline & online)	26	6
East Malaysia-Sarawak & Sabah (offline & online)	8	2

FINDINGS

The findings are shown in table three below that indicates 15 psychological impact variables of Covid-19 pandemic towards design-based students in UiTM. This data was rank on high, moderate and low impact. The scoring guide for this rank is 0.00 -3.60 is low impact, 3.61 - 4.20 is moderate impact and 4.21 – 5.00 is high impact. The findings indicated there are five psychological impact variables in the high scoring guide, sequentially the lowest mean score is *PF6_Confuse* at 4.31, *PF4_Worry* at 4.34, *PF5_Fatigue* at 4.44, *PF7_Lack Motivation* at 4.44 and the most impactful is *PF2-Stress* at 4.47. The moderate impact score consists of 10 variables, in ascending sequence are *PF16_Sad* at 3.82, *PF8_Annoyed* at 3.85, *PF17_Helpless* at 3.88, *PF1_Fear* at 3.89, *PF3_Panic* at 3.97, *PF9_Isolated* at 3.98, *PF10_Boredom* at 4.01, *PF11_Entrapmnt* at 4.07, *PF12_Uncertainty* at 4.12 and *PF13_MissingOut* at 4.19. For low impact scoring guide mean score are *PF14_Angry* are 3.60, *PF18_Hate* at 3.43 and *PF15_Unsafe* at 3.25.

Table 3: Psychology impact variables and scores

Variables	Mean	SD	Rank
PF2_Stress	4.47	0.734	High
PF7_Lack Motivation	4.44	0.885	
PF5_Fatigue	4.44	0.775	
PF4_Worry	4.34	0.785	
PF6_Confuse	4.31	0.873	
PF13_MissingOut	4.19	0.943	Moderate
PF12_Uncertainty	4.12	1.022	
PF11_Entrapmnt	4.07	1.069	
PF10_Boredom	4.01	1.021	
PF9_Isolated	3.98	1.093	
PF3_Panic	3.97	0.942	
PF1_Fear	3.89	0.939	
PF17_Helpless	3.88	1.119	
PF8_Annoyed	3.85	1.07	
PF16_Sad	3.82	1.119	
PF14_Angry	3.60	1.131	Low
PF18_Hate	3.43	1.228	
PF15_Unsafe	3.25	1.162	
Total N			471

Scoring Guide: 0.00 – 3.60 = Low 3.61- 4.20 = Moderate 4.21 – 5.00 = High

Based on total 471 data analysed, the finding reveals that the highest ranked variables for psychological impact are stress, lack of motivation, fatigue, worry and confuse. Meanwhile the lowest ranked variables are angry, hate and feel unsafe.

Table 4: Psychology impact opinion by respondents

Variables	Frequency	Percent (%)	Valid (%)	Cumulative (%)
None	382	81.1	81.1	81.1
Anxiety	23	4.9	4.9	86.0
Burn Out	9	1.9	1.9	87.9
Depressed	28	5.9	5.9	93.8
Family Pressure	5	1.1	1.1	94.9
Feeling Frustrated	5	1.1	1.1	96.4
Lack of Creativity	2	.4	.4	96.4
Pressure from Lecturer	3	.6	.6	97.0
Laziness	3	.6	.6	97.7
Helpless	11	2.3	2.3	100.0
Total	471	100.0	100.0	

Table 4 indicated an open-ended question with short answer for this study based on respondent's opinion on psychological impact on design-based students during COVID-19 Pandemic. This questions section is not required question in the surveys. From 471 respondents, 382 (81.1%) did not answer the question. Using a thematic coding, the most impactful psychological theme from design-based students during the pandemic is the feeling of being *Depressed* with 28 respondents, followed sequentially with *Anxiety* at 23, *Helpless* at 11, *Burn Out* at 9, *Family Pressure* and *Feeling Frustrated* at 5, *Pressure from Lecturer* and *Laziness* at 2 and the least is *Lack of Creativity* at 2.

DISCUSSIONS

There are 18 variables represent psychology factors examined in this study. Based on Table 3 the highest mean score for psychology factor is recorded at 4.47 for variable stress, this is followed by lack of motivation and fatigue with mean score of 4.44. The changes of learning environment led to difficulties in comprehending the design task. Design-based students required a frequent consultation with studio lecturers. Design-tasking is about progressing development of assigned undertaking based on project brief. Thus, understanding the needs of statement of the project, physical observation of site and space analysis are likely not fully happening due to challenges of communication and isolation due to movement control order by the authority. Stressed is always related to inability to complete the task efficiently or ones need to do repeated processes to complete one task. The finding is supported by research conducted by Abdul Majeed et al. (2020), on the psychological impact of pandemic on population of Saudi Arabia. The study showed that the stress symptom is ranked as the highest due to the pandemic. Meanwhile, a study by Sayeed et al. (2020), among Bangladeshi students found that 61.97% of students are reported experiencing anxiety and stress, and thus effect their psychological health. This indicates that the COVID-19 pandemic does gives impact to the student psychological health.

Malaysia had experienced the third total lockdown since 1st June 2021; thus, the higher institution student had undergone online and offline study since March 2020. The psychological health of student has been affected as indicated in our study. It is shown that the moderate mean score for psychological factors is Missing Out (4.19), Uncertainty (4.12), Entrapment (4.07), Boredom (4.01) and Isolated (3.98). Due to social distancing strategies and total lockdown, people experiencing loneliness and social isolation (Hwang, 2020). Students are

unable to communicate and learn face to face with the lecturers and peers. Therefore, they feel missing out, entrapment, boredom and isolated.

Based on the opinion from the students they are experiencing depression (28) and had an anxiety (23) towards online and offline learning throughout the pandemic period. Other psychological effects highlighted by the students are *Burn Out*, *Feeling Frustrated* with their study, *Lack of Creativity* due to lockdown and isolation, *Laziness* and feeling *Helpless* (Table 4). This result is consistent with Keckojevic et al. (2020), thus reported significantly high level of anxiety, stress and depression among higher institution students. In order to help the student to cope with mental health issues, the UiTM campus had carried out talks, webinar, e-counselling services, and *i-care* UiTM under the UiTM Career and Counselling Centre Unit. Hence, other related services to assist the students in need during this crucial period.

CONCLUSIONS

Covid-19 pandemic has impacted psychologically at all level of society. For design-based students this new norm has resultant an adverse impact to their study. The high psychological impact of stress, lack of motivation, fatigue, worry and confuse need to be addressed critically so that it will not compromise the attribute of graduates upon completion of the studies. Causes of this impact is likely due to new study environment where all learning processes were conducted online. Challenges to fulfill design tasks of the study were further exacerbated when face to face conduct between students and lecturer are not occurring. These online learning approaches escalated the impacts when communications between students and lecturers is limited due to poor internet coverage, other externalities such as non-conducive learning environment where learning took place at home and not in the studios, lack of supporting facilities such as resource center, laboratory or workshops and non-affective mutual response between students and lecturers as the medium is computer screen or smartphone.

The moderate impact such as missing out and uncertainty is also due to communication problems. Peers learning and instructor's guidance are proved to be difficult to be communicated during the pandemic. Based on *Nota Khas MAPS of Lembaga Arkitek Malaysia*, design studio courses are categorized as courses that require special needs. It requires face to face learning conduct as much as possible to yield a well round design professional attribute upon graduation. The Universities and Faculties should address all these psychological impacts by pro-actively providing helpdesk call centre, counselling, peers support groups and above all to listens and came up with remedial actions.

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