Sociodemographic and psychological study on performance of students for the COVID-19 aftermath dataset

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\textbf{A B S T R A C T}

This paper presents the dataset of undergraduates learning habits during and before the occurrence of pandemic COVID-19 under the scope of sociodemographic and psychological aspects. This dataset consists of four (4) main sections which are students' demographic, psychological disruption, students' learning habits and integration of online sessions with sustainability topics. A total of 37 variables were distributed via an online survey platform. The link of the online survey was circulated to the students using few social media platforms such as WhatsApp groups, Telegram, and faculties’ Facebook starting from June 1 until June 31, 2020. There was a total of 668 respondents accompanied by consent were agreed to join the survey. This dataset can have an important role for research and education in identifying the impact on learning performance among the undergraduate students during COVID-19 pandemic based on different sociodemographic and psychological aspects.

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Specifications Table

| Subject                        | Education                                                                 |
|--------------------------------|---------------------------------------------------------------------------|
| Specific subject area          | Learning habits, Online learning, Sociodemographic, Psychological         |
| Type of data                   | Table                                                                     |
| How data were acquired         | Online survey                                                             |
| Data format                    | Raw, Analyzed                                                             |
| Parameters for data collection | The target respondents of this survey were undergraduate students from public university in Malaysia, across different faculties, who are learning affected due to COVID-19. |
| Description of data collection | The survey form was distributed via an online platform. The link of the online survey was circulated to the students using few social media platforms such as WhatsApp groups, Telegram, and faculties’ Facebook. |
| Data source location           | Institution: Universiti Teknologi MARA                                    |
|                                | Region: Asia                                                              |
|                                | Country: Malaysia                                                         |
| Data accessibility             | Repository name: Mendeley repository                                      |
|                                | Direct URL to data: http://dx.doi.org/10.17632/dspbfsp9ds.3               |

Value of the Data

- The dataset covered information of students’ learning habits before and during COVID-19.
- Useful dataset for researchers who interested to identify effects and analyze the impact of students’ learning habits during COVID-19 among different sociodemographic status.
- The dataset can be served as a reference source for researchers who interested to identify the relationship between psychological disruption impact on students’ necessity of self-learning and self-motivation towards effective learning during COVID-19.
- The dataset is a reference source and guideline for policy makers in enhancing the future policies with regards to the online learning which can be aligned with the students’ different sociodemographic and psychological aspects as well as betterment of education systems preparation for similar situations in the future.

1. Data Description

The landscape of education sector around the world has drastically changed due to the spread of the Novel Corona Virus Disease 2019 or Covid-19 [1]. Thus, online digital learning has taken place to support the continuation of teaching and learning process during the pandemic, which has eventually impacted the students’ learning habits [2, 3]. In response to this, this dataset [4] describes undergraduates learning habits before and during the occurrence of COVID-19 pandemic and its mediating factors, which include the learning hours, different socioeconomic status, students' perception of psychological disruption, students' perception of the necessity of self-learning and the self-motivation factors that support students’ effective learning. The target respondents of this survey [4] were undergraduate students from a public university in Malaysia, across different faculties, who are their learning affected due to COVID-19. Table 1 shows the descriptive statistics of students' demographics. The demographics items consist of gender, current year of study, level of study, reside area, occupation sector of head of family, occupation field of the head of family, and total family income per month. The minimum and maximum column reflected as the minimum and maximum value answered by the user for each demographic's items.

Table 2 summarizes a cross tabulation results between students’ demographics and learning habits measure by learning hours each student used per day before and during the pandemic.
Table 1
Descriptive statistics of students’ demographics.

|                                | Frequency | Percent | Minimum | Maximum |
|--------------------------------|-----------|---------|---------|---------|
| Gender                         |           |         |         |         |
| Male                           | 299       | 44.8    | 1       | 2       |
| Female                         | 369       | 55.2    | 1       | 2       |
| Total                          | 668       | 100.0   |         |         |
| Current year of study          |           |         |         |         |
| 1st & 2nd year                 | 436       | 65.3    | 1       | 4       |
| 3rd & 4th year                 | 232       | 34.7    | 1       | 4       |
| Total                          | 668       | 100.0   |         |         |
| Level of study                 |           |         |         |         |
| Diploma                        | 265       | 39.7    | 1       | 2       |
| Degree                         | 403       | 60.3    | 1       | 2       |
| Total                          | 668       | 100.0   |         |         |
| Reside area                    |           |         |         |         |
| Rural area (Countryside)       | 275       | 41.2    | 1       | 2       |
| Urban area (Town/City)         | 393       | 58.8    | 1       | 2       |
| Total                          | 668       | 100.0   |         |         |
| Occupation sector of head of family |       |         |         |         |
| Total                          | 668       | 100.0   |         |         |
| Government sector              | 212       | 31.7    | 1       | 5       |
| Private sector                 | 195       | 29.2    | 1       | 5       |
| Self-employed                  | 146       | 21.9    | 1       | 5       |
| Unemployed                     | 71        | 10.6    | 1       | 5       |
| Others                         | 44        | 6.6     | 1       | 5       |
| Total                          | 668       | 100.0   |         |         |
| Occupation field of the head of family |       |         |         |         |
| Manager and Professional       | 99        | 14.8    | 1       | 8       |
| Technical and Associate Professionals | 97     | 14.5    | 1       | 8       |
| Clerical Support Workers       | 57        | 8.5     | 1       | 8       |
| Service and Sales Workers      | 96        | 14.4    | 1       | 8       |
| Skilled Agricultural, Forestry, Livestock and Fisheries Workers | 36 | 5.4 | 1 | 8 |
| Craft and Related Trades Workers | 11    | 1.6     | 1       | 8       |
| Plant and Machine Operators and Assemblers | 24 | 3.6 | 1 | 8 |
| Other                          | 248       | 37.1    | 1       | 8       |
| Total                          | 668       | 100.0   |         |         |
| Total family income per month (RM) |       |         |         |         |
| Less than RM4000               | 346       | 51.8    | 1       | 3       |
| RM4000 - RM9000                | 222       | 33.2    | 1       | 3       |
| More than RM9000               | 100       | 15.0    | 1       | 3       |
| Total                          | 668       | 100.0   |         |         |

COVID-19. The learning hours were categorized into three (3) groups which are less than 4 h per day, 4–8 h per day, and more than 8 h per day.

Next, Table 3 shows the descriptive results of psychological disruption faced by the students which measured by the students’ experienced on certain scenario which are their health care access, internet access, ability to pursue studies, ability to socialize, and their overall psychological wellbeing, including and/or depression.

Following, Table 4 shares on the students’ perception on self-learning which measured by necessity towards the self-learning during COVID-19 and self-learning effectives aspect.
Table 2
Crosstab results between students’ demographics and learning habits (hours per day).

| Variables                  | Learning hours before COVID-19 | Learning hours during COVID-19 |
|----------------------------|--------------------------------|--------------------------------|
|                            | < 4   | 4-8  | > 8  | Total | < 4   | 4-8  | > 8  | Total |
| **Gender**                 |       |      |      |       |       |      |      |       |
| Male                       | 206   | 90   | 3    | 299   | 180   | 113  | 6    | 299   |
| % within gender            | 68.9% | 30.1%| 1.0% | 100.0%| 60.2% | 37.8%| 2.0% | 100.0%|
| % within lh_before         | 48.9% | 39.6%| 15.0%| 44.8% | 53.9% | 39.4%| 12.8%| 44.8% |
| % of Total                 | 30.8% | 13.5%| .4%  | 44.8% | 26.9% | 16.9%| .9%  | 44.8% |
| Female                     | 215   | 137  | 17   | 369   | 154   | 174  | 41   | 369   |
| % within gender            | 58.3% | 37.1%| 4.6% | 100.0%| 41.7% | 47.2%| 11.1%| 100.0%|
| % within lh_before         | 51.1% | 60.4%| 85.0%| 55.2% | 46.1% | 60.6%| 87.2%| 55.2% |
| % of Total                 | 32.2% | 20.5%| 2.5% | 55.2% | 23.1% | 26.0%| 6.1% | 55.2% |
| **Current year of study**  |       |      |      |       |       |      |      |       |
| 1st & 2nd year             | 273   | 151  | 12   | 436   | 226   | 175  | 35   | 436   |
| % within sem               | 62.6% | 34.6%| 2.8% | 100.0%| 0.52  | 40.1%| 8.0% | 100.0%|
| % within lh_before         | 64.8% | 66.5%| 60.0%| 65.3% | 67.7% | 61.0%| 74.5%| 65.3% |
| % of Total                 | 40.9% | 22.6%| 1.8% | 65.3% | 33.8% | 26.2%| 5.2% | 65.3% |
| 3rd & 4th year             | 148   | 76   | 8    | 232   | 108   | 112  | 12   | 232   |
| % within sem               | 63.8% | 32.8%| 3.4% | 100.0%| 46.6% | 48.3%| 5.2% | 100.0%|
| % within lh_before         | 35.2% | 33.5%| 40.0%| 34.7% | 32.3% | 39.0%| 25.5%| 34.7% |
| % of Total                 | 22.2% | 11.4%| 1.2% | 34.7% | 16.2% | 16.8%| 1.8% | 34.7% |
| **Level of study**         |       |      |      |       |       |      |      |       |
| Diploma                    | 176   | 83   | 6    | 265   | 144   | 106  | 15   | 265   |
| % within edu_level         | 66.4% | 31.3%| 2.3% | 100.0%| 54.3% | 40.0%| 5.7% | 100.0%|
| % within lh_before         | 41.8% | 36.6%| 30.0%| 39.7% | 43.1% | 36.9%| 31.9%| 39.7% |
| % of Total                 | 26.3% | 12.4%| .9%  | 39.7% | 21.6% | 15.9%| 2.2% | 39.7% |
| Degree                     | 245   | 144  | 14   | 403   | 190   | 181  | 32   | 403   |
| % within edu_level         | 60.8% | 35.7%| 3.5% | 100.0%| 47.1% | 44.9%| 7.9% | 100.0%|
| % within lh_before         | 58.2% | 63.4%| 70.0%| 60.3% | 56.9% | 63.1%| 68.1%| 60.3% |
| % of Total                 | 22.2% | 11.4%| 1.2% | 34.7% | 16.2% | 16.8%| 1.8% | 34.7% |
| **Reside area**            |       |      |      |       |       |      |      |       |
| Rural area (Country-side)  | 164   | 100  | 11   | 275   | 143   | 111  | 21   | 275   |
| % within reside_area       | 59.6% | 36.4%| 4.0% | 100.0%| 52.0% | 40.4%| 7.6% | 100.0%|
| % within lh_before         | 39.0% | 44.1%| 55.0%| 41.2% | 42.8% | 38.7%| 44.7%| 41.2% |
| % of Total                 | 24.6% | 15.0%| 1.6% | 41.2% | 21.4% | 16.6%| 3.1% | 41.2% |
| Urban area (Town/City)     | 257   | 127  | 9    | 393   | 191   | 176  | 26   | 393   |
| % within reside_area       | 65.4% | 32.3%| 2.3% | 100.0%| 48.6% | 44.8%| 6.6% | 100.0%|
| % within lh_before         | 61.0% | 55.9%| 45.0%| 58.8% | 57.2% | 61.3%| 55.3%| 58.8% |
| % of Total                 | 38.5% | 19.0%| 1.3% | 58.8% | 28.6% | 26.3%| 3.9% | 58.8% |
| **Occupation sector of head of family** |       |      |      |       |       |      |      |       |
| Government sector          | 136   | 71   | 5    | 212   | 104   | 98   | 10   | 212   |
| % within occ_head          | 64.2% | 33.5%| 2.4% | 100.0%| 49.1% | 46.2%| 4.7% | 100.0%|
| % within lh_before         | 32.3% | 31.3%| 25.0%| 31.7% | 31.1% | 34.1%| 21.3%| 31.7% |

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### Table 2 (continued)

| Variables | Learning hours before COVID-19 | Learning hours during COVID-19 |
|-----------|--------------------------------|--------------------------------|
|           | < 4  | 4–8  | > 8  | Total | < 4  | 4–8  | > 8  | Total |
| Private sector |       |       |       |       |       |       |       |       |
| Count     | 121  | 70   | 4    | 195   | 90   | 86   | 19   | 195   |
| % of Total |      |      |      |       |      |      |      |       |
| % within occ_head | 62.1% | 35.9% | 2.1% | 100.0% | 46.2% | 44.1% | 9.7% | 100.0% |
| % within lh_before | 28.7% | 30.8% | 20.0% | 29.2% | 26.9% | 30.0% | 40.4% | 29.2% |
| % of Total | 18.1% | 10.5% | .6%  | 29.2% | 13.5% | 12.9% | 2.8%  | 29.2% |
| Self-employed |       |       |       |       |       |       |       |       |
| Count     | 87   | 55   | 4    | 146   | 74   | 58   | 14   | 146   |
| % of Total |      |      |      |       |      |      |      |       |
| % within occ_head | 59.6% | 37.7% | 2.7% | 100.0% | 50.7% | 39.7% | 9.6% | 100.0% |
| % within lh_before | 20.7% | 24.2% | 20.0% | 21.9% | 22.2% | 20.2% | 29.8% | 21.9% |
| Unemployed |       |       |       |       |       |       |       |       |
| Count     | 46   | 21   | 4    | 71    | 38   | 31   | 2    | 71    |
| % of Total |      |      |      |       |      |      |      |       |
| % within occ_head | 13.0% | 8.2% | .6%  | 21.9% | 11.1% | 8.7% | 2.1% | 21.9% |
| % within lh_before | 10.9% | 9.3% | 20.0% | 10.6% | 11.4% | 10.8% | 4.3% | 21.9% |
| Others    |       |       |       |       |       |       |       |       |
| Count     | 31   | 10   | 3    | 44    | 28   | 14   | 2    | 44    |
| % of Total |      |      |      |       |      |      |      |       |
| % within occ_head | 70.5% | 22.7% | 6.8% | 100.0% | 63.6% | 31.8% | 4.5% | 106.0% |
| % within lh_before | 7.4% | 4.4% | 15.0% | 6.6% | 8.4% | 4.9% | 4.3% | 6.6% |
| Occupation field of the head of family |       |       |       |       |       |       |       |       |
| Manager and Professional |       |       |       |       |       |       |       |       |
| Count     | 62   | 34   | 3    | 99    | 46   | 42   | 11   | 99    |
| % of Total |      |      |      |       |      |      |      |       |
| % within occ_field | 62.6% | 34.3% | 3.0% | 100.0% | 46.5% | 42.4% | 11.1% | 100.0% |
| % within lh_before | 14.8% | 15.0% | 15.0% | 14.9% | 13.9% | 14.6% | 23.4% | 14.9% |
| Technical and Associate Professionals |       |       |       |       |       |       |       |       |
| Count     | 63   | 33   | 1    | 97    | 39   | 50   | 8    | 97    |
| % of Total |      |      |      |       |      |      |      |       |
| % within occ_field | 64.9% | 34.0% | 1.0% | 100.0% | 40.2% | 51.5% | 8.2% | 100.0% |
| % within lh_before | 15.1% | 14.5% | 5.0% | 14.6% | 11.8% | 17.4% | 17.0% | 14.6% |
| Clerical Support Workers |       |       |       |       |       |       |       |       |
| Count     | 32   | 24   | 0    | 56    | 35   | 19   | 2    | 56    |
| % of Total |      |      |      |       |      |      |      |       |
| % within occ_field | 57.1% | 42.9% | .0%  | 100.0% | 62.5% | 33.9% | 3.6% | 100.0% |
| % within lh_before | 7.7% | 10.6% | .0%  | 8.4%  | 10.6% | 6.6% | 4.3% | 8.4%  |
| Service and Sales Workers |       |       |       |       |       |       |       |       |
| Count     | 64   | 28   | 4    | 96    | 47   | 44   | 5    | 96    |
| % of Total |      |      |      |       |      |      |      |       |
| % within occ_field | 48.3% | 36.0% | .0%  | 100.0% | 49.0% | 45.8% | 5.2% | 100.0% |

(continued on next page)
Table 2 (continued)

| Variables                                      | Learning hours before COVID-19 | Learning hours during COVID-19 |
|------------------------------------------------|-------------------------------|-------------------------------|
|                                                 | < 4  | 4-8 | > 8 | Total | < 4  | 4-8 | > 8 | Total |
| Skilled Agricultural, Forestry, Livestock and Fisheries Workers | % within lh_before | 15.3% | 12.3% | 20.0% | 14.4% | 14.2% | 15.3% | 10.6% | 14.4% |
| Count                                           |      | 19  | 14  | 1    | 34   |      | 20  | 13  | 1    | 34   |
| % within occ_field                             |      | 55.9% | 41.2% | 2.9% | 100.0% | 58.8% | 38.2% | 2.9% | 100.0% |
| % within lh_before                             |      | 4.5% | 6.2% | 5.0% | 5.1% | 6.0% | 4.5% | 2.1% | 5.1% |
| % of Total                                      |      | 2.9% | 2.1% | .2% | 5.1% | 3.0% | 2.0% | .2% | 5.1% |
| Count                                           |      | 6   | 4   | 1   | 11   |      | 5   | 5   | 1   | 11   |
| Craft and Related Trades Workers                | % within occ_field | 54.5% | 36.4% | 9.1% | 100.0% | 45.5% | 45.5% | 9.1% | 100.0% |
| Count                                           |      | 1.4% | 1.8% | 5.0% | 1.7% | 1.5% | 1.7% | 2.1% | 1.7% |
| Plant and Machine Operators and Assemblers     | % within occ_field | 9.1% | .6% | 2.0% | 1.7% | 8% | .8% | .2% | 1.7% |
| Count                                           |      | 17  | 4   | 3   | 24   |      | 12  | 11  | 1   | 24   |
| Other                                           | % within lh_before | 70.8% | 16.7% | 12.5% | 100.0% | 50.0% | 45.8% | 4.2% | 100.0% |
| % of Total                                      |      | 4.1% | 1.8% | 15.0% | 3.6% | 3.6% | 3.8% | 2.1% | 3.6% |
| Count                                           |      | 155 | 86  | 7   | 248  |      | 127 | 103 | 18  | 248  |
| % within occ_field                             |      | 62.5% | 34.7% | 2.8% | 100.0% | 51.2% | 41.5% | 7.3% | 100.0% |
| % within lh_before                             |      | 37.1% | 37.9% | 35.0% | 37.3% | 38.4% | 35.9% | 38.3% | 37.3% |
| % of Total                                      |      | 23.3% | 12.9% | 1.1% | 37.3% | 19.1% | 15.5% | 2.7% | 37.3% |
| Count                                           |      | 198 | 137 | 11  | 346  |      | 176 | 147 | 23  | 346  |
| Total family income per month (RM)             | % within income | 57.2% | 39.6% | 3.2% | 100.0% | 50.9% | 42.5% | 6.6% | 100.0% |
| Less than RM4000                                | % within lh_before | 47.0% | 60.4% | 55.0% | 51.8% | 52.7% | 51.2% | 48.9% | 51.8% |
| % of Total                                      |      | 29.6% | 20.5% | 1.6% | 51.8% | 26.3% | 22.0% | 3.4% | 51.8% |
| Count                                           |      | 151 | 63  | 8   | 222  |      | 109 | 96  | 17  | 222  |
| RM4000 - RM9000                                 | % within income | 68.0% | 28.4% | 3.6% | 100.0% | 49.1% | 43.2% | 7.7% | 100.0% |
| % within lh_before                             |      | 35.9% | 27.8% | 40.0% | 33.2% | 32.6% | 33.4% | 36.2% | 33.2% |
| % of Total                                      |      | 22.6% | 9.4% | 1.2% | 33.2% | 16.3% | 14.4% | 2.5% | 33.2% |
| Count                                           |      | 72  | 27  | 1   | 100  |      | 49  | 44  | 7   | 100  |
| More than RM9000                                | % within income | 72.0% | 27.0% | 1.0% | 100.0% | 49.0% | 44.0% | 7.0% | 100.0% |
| % within lh_before                             |      | 17.1% | 11.9% | 5.0% | 15.0% | 14.7% | 15.3% | 14.9% | 15.0% |
| % of Total                                      |      | 10.8% | 4.0% | .1% | 15.0% | 7.3% | 6.6% | 1.0% | 15.0% |
Table 3
Descriptive statistics of psychological disruption.

| Variables | N  | Range Statistic | Min Statistic | Max Statistic | Sum Statistic | Mean Statistic | Std. error | Std. deviation |
|-----------|----|-----------------|--------------|--------------|--------------|---------------|------------|---------------|
| **During the last few months, have you experienced any of the following? (Yes = 1; No = 2)** | | | | | | | | |
| Help or assistance from a stranger. | 668 | 1 | 1 | 2 | 1178 | 1.763 | 0.016 | 0.425 |
| Adverse discrimination from a stranger. | 668 | 1 | 1 | 2 | 1259 | 1.885 | 0.012 | 0.320 |
| Difficulties due to changes in your living conditions, including hostel disclosures. | 668 | 1 | 1 | 2 | 940 | 1.407 | 0.019 | 0.492 |
| Difficulties in traveling. | 668 | 1 | 1 | 2 | 912 | 1.365 | 0.019 | 0.482 |
| **Relative to BEFORE COVID-19 crisis, how would you rank your CURRENT level of:** | | | | | | | | |
| Health care access | 668 | 5 | 0 | 5 | 1495 | 2.238 | 0.054 | 1.402 |
| Internet access | 668 | 5 | 0 | 5 | 1494 | 2.237 | 0.047 | 1.214 |
| Ability to pursue your studies, including your graduation and/or degree completion | 668 | 5 | 0 | 5 | 1245 | 1.864 | 0.043 | 1.120 |
| Ability to socialize | 668 | 5 | 0 | 5 | 1305 | 1.954 | 0.044 | 1.129 |
| Overall psychological wellbeing, including and/or depression | 668 | 5 | 0 | 5 | 1243 | 1.861 | 0.044 | 1.150 |

* Rating scale: 0 = N/A or Don’t Know; 1 = Much worse than before; 2 = Worse than before; 3 = Same as before; 4 = Better than before; 5 = Much better than before.

While Table 5 summarizes the descriptive statistics of students' perception on online sessions with regards to the sustainability topics such as preventive health care, Coronavirus, sustainable environment development, and E-learning tools and techniques. Detailed descriptions of all the variables and questions used for this study can be found in the Mendeley data repository [4]. The complete survey form can be found in the supplementary file.

2. Experimental Design, Materials and Methods

This dataset [4] consist of four (4) main sections which are Section A related to students' demographic, Section B related to psychological disruption, Section C related to students' learning habits, and Section D related to integration of online sessions with sustainability topics adopted from [5] and [6]. A survey form consist of 37 items were distributed via an online survey. The link of the online survey was circulated to the students from the respective lecturers using few social media platforms. Such as WhatsApp groups, Telegram groups, and faculties’ Facebook starting from June 1 until June 31, 2020. There was a total of 674 feedback was collected however, 6 of them are refused to join the survey. The remaining 668 respondents accompanied by consent were agreed to join the survey.

The data were first gone through a data cleaning process to identify missing values and performed corrective action with regards to it. Next, the data were analyze using frequency analysis (see Table 1). For the purpose to analyze the difference in students’ learning habits before and during pandemic COVID-19, a cross tabulation analysis was conducted between students’ demographics variables and learning habits variables (see Table 2).

A summary statistic for students' perception on the level of their psychological disruption, the necessity towards self-learning, and additional knowledge with regards to sustainability topics during COVID-19 datasets are presented in Table 3-5. These statistics were obtained using descriptive analysis as suggested by Trung et al. [5].
Table 4
Descriptive statistics of students’ perception on self-learning.

| Variables                                                                 | N  | Range | Min | Max | Sum | Mean | Std. dev. |
|---------------------------------------------------------------------------|----|-------|-----|-----|-----|------|-----------|
| I think that self-learning during COVID-19 is necessary because:          |    |       |     |     |     |      |           |
| I can assure my learning progress                                         | 668| 4     | 1   | 5   | 2073| 3.103| 0.041    | 1.062     |
| I can maintain my learning habit                                          | 668| 4     | 1   | 5   | 1951| 2.921| 0.044    | 1.125     |
| My lecturers advise/inform me it is necessary and important.             | 668| 4     | 1   | 5   | 2351| 3.519| 0.036    | 0.919     |
| My parents advise/inform me it is necessary and important.               | 668| 4     | 1   | 5   | 2230| 3.338| 0.039    | 0.997     |
| My siblings advise/inform me it is necessary and important.             | 668| 4     | 1   | 5   | 2096| 3.138| 0.038    | 0.984     |
| My friends advise/inform me it is necessary and important.              | 668| 4     | 1   | 5   | 2208| 3.305| 0.039    | 1.014     |
| I consider my self-learning activities are effective because:           |    |       |     |     |     |      |           |
| I have motivation for self-learning                                      | 668| 4     | 1   | 5   | 1790| 2.680| 0.042    | 1.098     |
| I have proper concentration skill                                        | 668| 4     | 1   | 5   | 1726| 2.584| 0.040    | 1.045     |
| I can define my daily learning objectives                                 | 668| 4     | 1   | 5   | 1835| 2.747| 0.038    | 0.993     |
| I have support from my family                                            | 668| 4     | 1   | 5   | 2183| 3.268| 0.039    | 1.019     |
| I have an effective learning environment                                  | 668| 4     | 1   | 5   | 1815| 2.717| 0.043    | 1.108     |
| I have various learning resources                                        | 668| 4     | 1   | 5   | 2049| 3.067| 0.042    | 1.074     |
| I communicate and collaborate with my friends about learning             | 668| 4     | 1   | 5   | 2136| 3.198| 0.042    | 1.081     |

* Rating scale: 1=Strongly disagree; 2=Disagree; 3=Neither agree nor disagree; 4=Agree; 5=Strongly agree.

Table 5
Descriptive statistics of students’ perception on online sessions with sustainability topics.

| Variables                                                                 | N  | Range | Min | Max | Sum | Mean | Std. dev. |
|---------------------------------------------------------------------------|----|-------|-----|-----|-----|------|-----------|
| During COVID-19 crisis, I have learnt additional knowledge on:            |    |       |     |     |     |      |           |
| Preventive health care                                                    | 668| 4     | 1   | 5   | 2599| 3.891| 0.031    | 0.813     |
| Coronavirus                                                               | 668| 4     | 1   | 5   | 2678| 4.009| 0.031    | 0.799     |
| Sustainable environment development                                       | 668| 4     | 1   | 5   | 2513| 3.762| 0.033    | 0.842     |
| E-learning tools and techniques                                           | 668| 4     | 1   | 5   | 2550| 3.817| 0.032    | 0.828     |

Ethics Statement

An informed consent was obtained for experimentation with human subjects. All the respondents were asked for their consent before they can answer the survey.
Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Supplementary Materials

Supplementary material associated with this article can be found in the online version at doi:10.1016/j.dib.2020.106421.

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