

## Distance Learning Challenges and Intervention of HEIS: Basis for Strategic Plan

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### *Abstract*

This study aimed to determine the challenges encountered by the students enrolled in distance/online learning from the four (4) Higher Education Institutions, the interventions to address these problems, and the effectiveness of the distance/online learning as perceived by the students. The study result showed that most students need a stable internet connection and use a smartphone as their learning device. Although some do not have a conducive learning space at home, the majority were able to study in a moderately peaceful environment. Another result shows that the time spent by each student creates a challenge since the students need help managing their time with too many tasks to comply with. The respondents believed that the teachers are moderately helpful, and they set a reasonable deadlines for tasks and activities. Moreover, the result shows that the four universities have provided students with distance/online learning resources. Also, most respondents agreed that online/ distance learning is moderately effective in delivering quality tertiary education.

**Keywords:** Distance/online learning, challenges, intervention

### **Introduction**

The education system was met with radical changes when COVID-19 happened. The usual face-to-face learning methodology was suspended, and academic institutions were forced to adapt to the changes of the times. The pandemic brought about innovative learning methods, while both teachers and learners faced challenges and difficulties, particularly

in delivering quality experiential learning. Some countries called this new learning methodology similar to traditional distance or online learning. However, several modifications were implemented to accommodate every type of learner so that every learner succeeds in these trying times.

According to Bates (2016), online learning is a form of distance education in which a course or program is fully designed to be delivered online or over the internet. Thus, online and distance learning have mainly been used interchangeably. Using this platform, faculty members use instructional strategies such as the delivery of instruction, student engagement, and assessment and evaluation of student learning that are specifically designed for a virtual environment (online) while “*away*” or “*at a distance*” from the student.

Some advantages of online learning include the efficiency in delivering instruction, accessibility, affordability, and it suits various learning styles. Online learning is considered efficient since it offers teachers various tools to deliver instruction, such as website links, videos, table data files (PDFs), podcasts, and other online learning resources.

Online learning is considered accessible since students can attend a class anywhere and perform their academic tasks quickly. Thus, providing them with the opportunity to manage their time personally. It is also considered affordable since it omits the cost of transportation, meals, boarding houses or apartments and other costs related to face-to-face instruction. More so, online learning suits various learning styles since it is considered efficient in delivering instruction using different methods. Thus, the resource materials given by the faculty member can fit the student's learning styles (Gautam, 2020).

In the Philippines, the Commission on Higher Education issued CMO No. 4 s. 2020, “Guidelines on the Implementation of Flexible Learning”. This government agency’s order aims “*to explore innovative learning modalities that will facilitate migration from traditional to flexible teaching and learning options that are responsive to students’ need for access to quality education.*” This guideline empowers students to decide on the most appropriate learning mode as early as their enrolment.

According to the CHED Memorandum Order, flexible learning is a teaching approach that accommodates the learners' needs. This memo may be using technology or non-digital technology, in-person learning, out-of-classroom learning or a combination of delivery modes. Hence, academic institutions offer printed modules as a mode of learning delivery, and some offer distance online learning in synchronous and asynchronous sessions. A flexible learning modality facilitates an outcomes-based education approach despite limitations and challenges.

However, the change in the mode of instruction from face-to-face to online learning was abrupt due to the pandemic. All institutions must strategize how to deliver online instruction using platforms such as Facebook learning page, Google Classroom and Google Meet, Zoom video conferencing, and others. Due to the abrupt change in how faculty members deliver their lessons, the researchers conducted this study to determine and evaluate the challenges encountered by students in distance/online learning during the pandemic. This change would be a basis to improve the services offered by the various institutions on how they can deliver their online classes and provide data to the administration on what intervention they can offer to help students cope with these changes.

### **Research Objectives**

This study aims to determine and evaluate the challenges encountered by students in distance/online learning during the pandemic.

Specifically, the study aims to answer the following sub-questions:

1. What is the demographic profile of distance/online learning students?
2. What are the challenges encountered by students in the conduct of distance/online learning?
3. What are the interventions made to address the problems encountered?
4. How effective is distance/online learning for students?

### **Research Methodology**

#### **3.1. Research Design and Research Instrument**

This quantitative study will use a descriptive-evaluative method employing inferences to determine the effectiveness of distance/online learning as the interventions provided appropriate solutions to the challenges identified.

Descriptive research is a method that describes the situation of the study that aims to inform through the analysis of the data gathered. An evaluative method is used to carefully consider the value of the current study (Dudovskiy, 2018) as it identifies the relationships between the problems encountered and the interventions made by the teachers and the academic institution to address these problems.

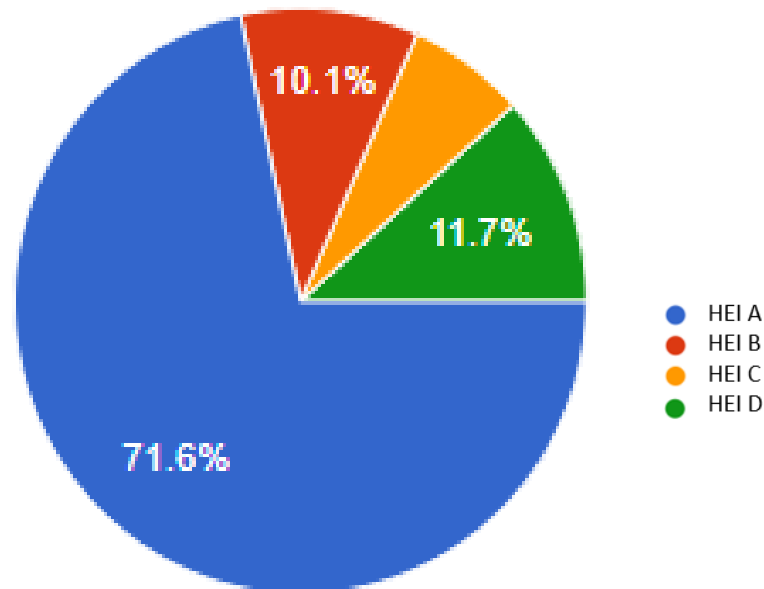
A research tool was designed by the four researchers and was distributed to the respondents to gather data. The questionnaire was divided into four parts: Part 1. Establishing the Demographic Profile of the Students,

Part 2 Evaluating the Challenges Encountered by Students in Distance/Online Learning, Part 3. Establishing Interventions Made by Higher Education Institutions (HEIs) on Distance/Online Learning and Part 4. Establishing the effectiveness of Distance/Online Learning.

### 3.2. Participants

This study employs the participation of four higher education institutions identified as HEI A, B, C and D. The study used purposive sampling in which the questionnaire was sent to students who could experience a year-long distance/online learning. The survey received responses from around 557 students, in which 71.6% (n=394) of respondents were from HEI A, 10.1% (n=56) from HEI B, 6.6% (n=37) from HEI C, and 11.7% (n=65) from HEI D as shown in Figure 1.

**Figure 1 Higher Education Institution (HEI) Respondents**



This study explores the similarities and differences in the problems encountered, and intervention approaches these higher education institutions make. The programs offered by these institutions are in engineering, computer studies, arts, science, and technology.

### 3.3. Research Instruments

The purpose of the questionnaire is to determine the demographic profile of the students, the challenges encountered by students in distance/online learning, the interventions made by Higher Education Institutions (HEIs) on Distance/Online Learning and the effectiveness of

Distance/Online Learning. The instrument was based on the published questionnaire form (Question Pro, 2020).

The demographic profile of the students includes the student's name, HEI they are enrolled with, program, year level and section, gender, checklist on how the school/university delivers distance/online learning, the availability of internet access to students for distance/online learning, the devices used by students for distance/online learning, the satisfactory level of the students with the technology and software used for distance/online learning, and the condition of students learning space at home.

Part 2 of the questionnaire: Establishing the challenges encountered by the student learner includes the collection of data on how often students attend their distance/online classes, the average time the students spend each day on distance/online learning, does the student have enough time to complete and work on their tasks and assignments, how students manage to cope with the work and compliance of tasks and assignments, how manageable are the student time in distance/online learning, the challenges encountered by students in distance/online learning, and the level of stress experienced by students in distance/online learning.

Part 3. Establishing interventions made includes the collection of how helpful the teachers are in the conduct of distance/online learning, how often students have a one-on-one virtual discussion with their teachers, how helpful the institution is in providing learning resources for distance/online learning, and the considerations given by teachers on tasks and compliance requirements.

Part 4. Establishing the effectiveness of the modality used includes the collection of data on how effective the distance/online learning has been for the students, how much the student has learned during the distance/online learning, how important for the student face-to-face virtual communication in the distance/online learning, the opinion of the students with regards to the suspension of the face-to-face classes, and what learning mode did they consider effective at this time of the pandemic, and how were the students overall learning experience from home. Appendix A shows the research tool formulated for this study.

#### 3.4. Statistical Treatment of Data

The statistical tools used for this study were frequency of count, percentage distribution, ranking, weighted mean, and average weighted mean. Frequency count was determined to find the percentage or ratio of responses to the total number of respondents. The ranking was used to determine the importance of a particular item. Weighted mean was used to find the average score per item. The average weighted mean was used to determine where most scores cluster. To interpret the results of the frequency of responses, the Likert Scale was used. The following Likert scale interpretation was used in the description of computed data:

**Table 1. Likert Scale**

| Score | Verbal Interpretation | Numerical Rating |
|-------|-----------------------|------------------|
| 5     | Extremely satisfied   | 4.21-5.00        |
| 4     | Very satisfied        | 3.41-4.20        |
| 3     | Moderately satisfied  | 2.61-3.40        |
| 2     | Slightly satisfied    | 1.81-2.60        |
| 1     | Not at all satisfied  | 1.00-1.80        |

**Results and Discussion**

Table 2 shows the demographic profile of the students. Based on the table, there were 77 BS Architecture students, 28 BEng Chemical Engineering students, 19 BS Civil Engineering students, 42 BS Community Development students, 66 BS Computer Science students, 23 BS Electrical Engineering students, 40 BS Electronics and Communications Engineering students, 7 BS Human Services students, 48 BS Information System students, 88 BS Information Technology students, 14 BS Mathematics students, 79 BS Mechanical Engineering students, 2 BS Social Science students, 15 BTLEd major in Home Economics students and 9 BEng Process Operations and Maintenance students.

**Table 2. Course/Program of Respondents**

| Course/Program                                | Count |
|-----------------------------------------------|-------|
| BS Architecture                               | 77    |
| BEng Chemical Engineering                     | 28    |
| BS Civil Engineering                          | 19    |
| BS Community Development                      | 42    |
| BS Computer Science                           | 66    |
| BS Electrical Engineering                     | 23    |
| BS Electronics and Communications Engineering | 40    |
| BS Human Services                             | 7     |
| BS Information System                         | 48    |
| BS Information Technology                     | 88    |
| BS Mathematics                                | 14    |
| BS Mechanical Engineering                     | 79    |

|                                         |            |
|-----------------------------------------|------------|
| BS Social Science                       | 2          |
| BTLED Home Economics                    | 15         |
| BEng Process Operations and Maintenance | 9          |
| <b>Total Respondents</b>                | <b>557</b> |

Among these programs, the student's responses came from the following year levels: 38 (6.80%) were first-year students, 141 (25.30%) were second-year students, 219 (39.30%) were third-year students, 139 (25.00%) were fourth-year students and 20 (3.60%) belongs to the fifth-year level.

**Table 3. Year Level of Respondents**

| <b>Year Level</b>        | <b>Count</b> |
|--------------------------|--------------|
| First Year               | 38           |
| Second Year              | 141          |
| Third Year               | 219          |
| Fourth Year              | 139          |
| Fifth Year               | 20           |
| <b>Total Respondents</b> | <b>557</b>   |

304 (54.60%) female students participated in the survey, while 253 (45.40%) of the respondents were male, as shown in Table 14.

**Table 4. Gender of Respondents**

| <b>Gender</b>            | <b>Count</b> |
|--------------------------|--------------|
| Female                   | 304          |
| Male                     | 253          |
| <b>Total Respondents</b> | <b>557</b>   |

The learning modality implemented by the higher education institutions where the respondents are enrolled shown in Table 5. Sixty-one (11.00%) respondents said their school uses online synchronous learning modality through Google Meet or Zoom, while 130 (24.00%) respondents answered online asynchronous using Google Classroom, Google Form, downloadable modules, videos, and others. There were no respondents who mentioned the absolute implementation of printed modules. However, the use of printed modules and online synchronous/asynchronous sessions was experienced by 20 (4.00%) of the respondents. 337 (61.00%) respondents answered that both online synchronous and asynchronous modes were implemented in their college/university. Five (5) answered that both online asynchronous and printed modules were applied by their institution. In contrast, four answered that online synchronous and printed modules were the learning modality implemented in their institution.

**Table 5. Learning Modality Implemented by HEI of Respondents**

| <b>Learning Modality</b>                                                                            | <b>Count</b> | <b>Percentage</b> |
|-----------------------------------------------------------------------------------------------------|--------------|-------------------|
| Online Synchronous (example: Google Meet, Zoom)                                                     | 61           | 11.00             |
| Online Asynchronous (example: Google Classroom, Google Form, downloadable modules, videos, others.) | 130          | 23.33             |
| Printed modules                                                                                     | 0            | 0.00              |
| Both Online Synchronous and Asynchronous                                                            | 337          | 60.50             |
| Online Synchronous/Asynchronous and Printed Modules                                                 | 20           | 3.59              |
| Online Asynchronous/Printed Modules                                                                 | 5            | 0.88              |
| Online Synchronous/Printed Modules                                                                  | 4            | 0.71              |
| Total Respondents                                                                                   | 557          | 100.00            |

Table 6 shows the respondents' availability of learning devices and internet access. Twenty-six respondents, or 4.60% of the total respondents, do not have their own devices and need stable internet connections. Three hundred ninety-three respondents, or 70.80% of the total respondents, were lucky to have a distance/online learning device. However, their internet is unstable. One hundred thirty-eight respondents, or 24.40% of the total, have a stable internet connection and a distance/online learning device.

**Table 6. Availability of Learning Device and Internet Access**

| <b>Availability of Learning Device and Internet Access</b>                             | <b>Count</b> | <b>Percent age</b> |
|----------------------------------------------------------------------------------------|--------------|--------------------|
| No, I share a device with others, and my internet is unstable.                         | 26           | 4.60               |
| Yes, I have a device to use for distance/online learning, but my internet is unstable. | 393          | 70.80              |



|                                                     |            |
|-----------------------------------------------------|------------|
| Yes. I have stable internet and a device to use for | 24.40      |
| distance/online learning                            | 138        |
| Total Respondents                                   | 557 100.00 |

The learning device used by the respondents also varies. Some have desktops and smartphones, while others have both laptops and smartphones. Most of the respondents use a laptop. Nevertheless, the majority use a smartphone for distance/online learning. Table 7 summarizes the demographics of the learning device used by the students.

**Table 7. Learning Device Used by Respondents**

| Learning Device Used | Count | Percentage |
|----------------------|-------|------------|
| Desktop              | 24    | 4.37       |
| Laptop               | 121   | 21.72      |
| Smartphone           | 353   | 63.38      |
| Tablet               | 55    | 9.87       |
| Desktop & Smartphone | 1     | 0.18       |
| Laptop & Smartphone  | 2     | 0.36       |
| Others: From School  | 1     | 0.18       |
| Total Respondents    | 557   | 100.00     |

The respondents were also asked how satisfied they were with the technology and software used for distance/online learning. As shown in Table 8, 48 or 8.6% of the respondent said that they were Not at all satisfied with the technology and software used for distance/online learning, 167 or 30% of the respondents answered that they were Slightly satisfied with the technology and software used for online learning, 257 or 46.1% of the respondents said that they are moderately satisfied, 72 or 12.9% of the respondents said that they are very satisfied and 13 or 2.33% said that they are extremely satisfied with the technology and software used for online learning.

**Table 8. Respondents' Level of Satisfaction with Online Learning**

| Satisfaction level   | Count | Percentage |
|----------------------|-------|------------|
| Not at all Satisfied | 48    | 8.62       |
| Slightly satisfied   | 167   | 29.98      |
| Moderately satisfied | 257   | 46.14      |
| Very satisfied       | 72    | 12.92      |
| Extremely satisfied  | 13    | 2.34       |
| Total Respondents    | 557   | 100.00     |

The respondents were asked how peaceful their learning space at home is. Table 9 summarizes these responses. The data showed that 86, or 15.44 % said that their learning environment is not at all peaceful; 196 or 35.19%, said that their learning environment is slightly peaceful, 224 or 40.22%, said that their learning environment is moderately peaceful; 42 or 7.54% said that their learning environment is very peaceful and nine among the respondents or 1.62% said that their learning environment is extremely peaceful.

**Table 9. Respondents' Level of Satisfaction with Online Learning**

| Learning Environment | Count | Percentage |
|----------------------|-------|------------|
| Peaceful             | 86    | 15.44      |
| Slightly peaceful    | 196   | 35.19      |
| Moderately peaceful  | 224   | 40.22      |
| Very peaceful        | 42    | 7.54       |
| Extremely peaceful   | 9     | 1.62       |
| Total Respondents    | 557   | 100.00     |

Table 10 shows how often the respondents attend their distance/online classes. The result shows that 8, or 1.44% of the respondents said that they seldom attend online classes; 66, or 11.85%, said that they sometimes attend their online classes; 107, or 19.21%, said that they moderately attend their online classes, 140 or 25.13% very often attended their online classes and 236 or 42.37% are attending classes regularly or continuously. The results showed that most students are attending online classes regularly.

**Table 10. How often do respondents attend distance/online classes?**

| Frequency of Attendance | Count | Percentage |
|-------------------------|-------|------------|
| Not often               | 8     | 1.44       |
| Sometimes               | 66    | 11.85      |
| Moderately often        | 107   | 19.21      |
| Very often              | 140   | 25.13      |
| Always                  | 236   | 42.37      |
| Total Respondents       | 557   | 100.00     |

The respondents were also asked how much time they spend on distance/online learning daily. Table 11 summarises these data. The results showed that 87, or 15.60%, of the respondents said that they spend 1-3 hours each day on online classes, 221 or 39.70%, said that they spend 3-5 hours each day on online classes, 185 or 33.20% said that they spend 5-7 hours each day on online class and 64 or 11.50% said that they spend 7-10 hours each day on online class. The results showed that the majority spend an average of 3-5 hours daily attending an online class.

**Table 11. Time spent on distance/online classes**

| Time Spent        | Count | Percentage |
|-------------------|-------|------------|
| 1-3 hours         | 87    | 15.60      |
| 3-5 hours         | 221   | 39.70      |
| 5-7 hours         | 185   | 33.20      |
| 7-10 hours        | 64    | 11.50      |
| Total Respondents | 557   | 100.00     |

The respondents were also asked if they were given enough time to complete and work on their assigned tasks and assignments. The results showed that 362, or 65.00% of the respondents, said that they were given enough time to do the task and 195, or 35.00% of the respondents, said that they did not have enough time to do or accomplish the tasks and assignments given to them by their teachers, as reflected in Table 12.

**Table 12. Time is given to students to complete their tasks and assignments**

| Enough time?      | Count | Percentage |
|-------------------|-------|------------|
| Yes               | 362   | 65.00      |
| No                | 195   | 35.00      |
| Total Respondents | 557   | 100.00     |

The researcher also assessed how students cope with work and compliance with tasks and assignments. The result was summarized using Table 13. The data shows that 19, or 3.40%, of the respondents, said that they ask for help from their subject teachers; 181 or 32.50%, said that they ask for help from their classmates; 282, or 50.60% of the respondents said that they do online research and manage their time well, 14 or 2.50% of the respondents said that they ask family members who can assist the students and 61 or 11.00% said that they find it hard to cope with the work and compliances. The result shows that most students prefer to ask their classmates for clarification or do online research independently.

**Table 13. How do students manage to cope with their tasks?**

| Coping Mechanism                                          | Count | Percentage |
|-----------------------------------------------------------|-------|------------|
| I ask for help from my teachers                           | 19    | 3.4.00     |
| I ask for help from my classmates                         | 181   | 32.50      |
| I do online research and manage my time well              | 282   | 50.60      |
| I asked family members who could assist me                | 14    | 2.50       |
| I am finding it hard to cope with the work and compliance | 61    | 11.00      |
| Total Respondents                                         | 557   | 100.00     |

The respondents were also asked about their perception of how manageable time spent in distance/online learning is. Data in Table 14 shows that 18 or 3.20% of the respondents said their time could be more manageable. 171, or 30.70%, said their time spent in an online class is slightly manageable. 310, or 55.70% of the respondents, said it is moderately manageable, while 51 or 9.20%, said their time is very manageable. In contrast, 7 or 1.30% said the time spent in an online class is extremely manageable.

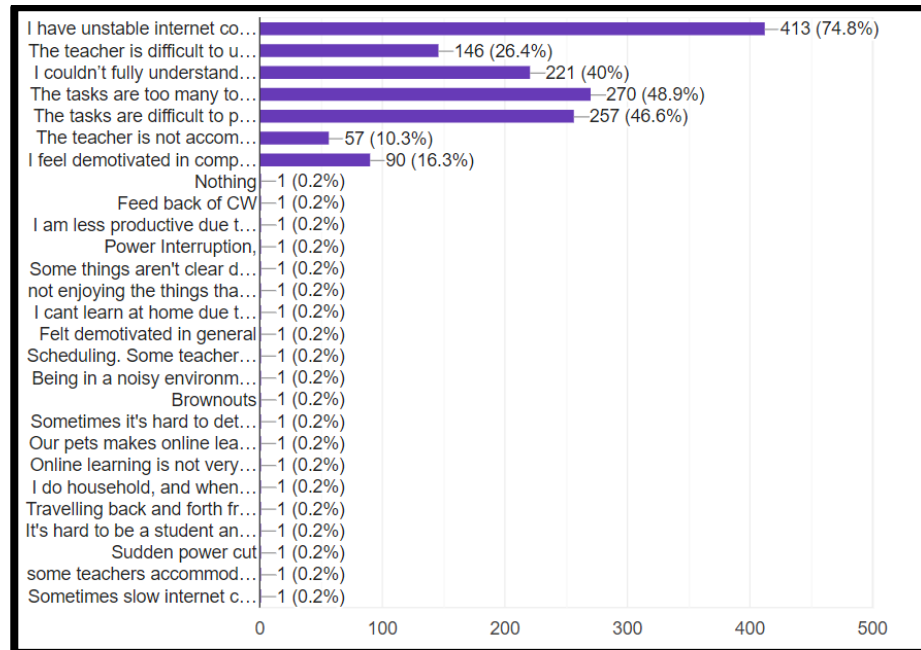
**Table 14. Perception of students on the manageability of time in distance/online learning**

| How manageable is the time spent in | Count | Percentage |
|-------------------------------------|-------|------------|
| <b>Online class</b>                 |       |            |
| Not at all manageable               | 18    | 3.20       |
| Slightly manageable                 | 171   | 30.70      |
| Moderately manageable               | 310   | 55.70      |
| Very manageable                     | 51    | 9.20       |
| Extremely manageable                | 7     | 1.30       |
| Total Respondents                   | 557   | 100.00     |

The students were then asked about their challenges during distance/online classes. Figures 2 and 3 highlight the common challenges faced by students daily.

Figure 2 shows the response of students and how they rank the challenges they met. Among the challenges that were mentioned at the start of this discussion, unstable internet ranked 1, followed by the difficulty of understanding the teacher during the discussion, which is a by-product of the instability of the internet as the students could not hear the discussions or the lesson properly is difficult to digest. Students also need help understanding the recorded video lessons. The majority complain that there are too many tasks to comply with, which are difficult to perform due to the limited resources. Some respondents feel demotivated since the teacher is not accommodating in queries and does not respond to messages. Other challenges identified were power outages, noisy environment, household chores which may conflict with the schedules of online learning and the travel time from the student's house and the boarding house to attend distance/online class.

**Figure 2 Challenges student encounters in distance/online learning**



**Figure 3. Challenges encountered by the students in distance/online learning.**

Among the respondents, 4 or 0.70% agreed that the teachers are not helpful in online classes; 55, or 10.00%, said that the teachers are somewhat helpful in online exams; 262, or 46.60%, agreed the teachers are moderately helpful in online assessments, 198 or 35.70% agreed the teachers are constructive in online classes, and 38 or 6.80% agreed that the teachers are extremely helpful in online classes.

**Table 15. Perception of Students on Teachers' Helpfulness in Distance/online learning**

| Teachers in online learning are helpful to students | Count | Percentage |
|-----------------------------------------------------|-------|------------|
| Not at all helpful                                  | 4     | 0.70       |
| Slightly helpful                                    | 55    | 10.00      |
| Moderately helpful                                  | 262   | 35.70      |
| Very helpful                                        | 198   | 35.70      |
| Extremely helpful                                   | 38    | 6.80       |
| Total Respondents                                   | 557   | 100.00     |

A school/university's ability to provide distance/online learning resources is shown in Table 16. About 9.90%, or 55 of those surveyed, indicated that schools/universities are slightly helpful in providing learning resources to

students; 203, or 36.40%, confirmed they are moderately helpful to the learners; 242 or 43.40%, confirmed the school/university is constructive in providing learning resources for distance/online learners, and 55 or 9.90% confirmed it is extremely helpful in providing learning resources for distance/online learners.

**Table 16. Perception of school/university's helpfulness in providing learning resources**

| <b>Schools/universities help provide learning resources for distance/online learning to their students</b> | <b>Count</b> | <b>Percentage</b> |
|------------------------------------------------------------------------------------------------------------|--------------|-------------------|
| Not at all helpful                                                                                         | 0            | 0.00              |
| Slightly helpful                                                                                           | 55           | 9.90              |
| Moderately helpful                                                                                         | 203          | 36.40             |
| Very helpful                                                                                               | 242          | 43.40             |
| Extremely helpful                                                                                          | 55           | 9.90              |
| Total Respondents                                                                                          | 557          | 100.00            |

On the perception of teachers' considerations on tasks and compliance requirements, 438 out of 557 agreed that the teachers set a reasonable deadline for tasks and activities. 378 of the 557 respondents testify that teachers still accept late submissions. However, they deducted points from the 157 respondents who testified that teachers accept late submissions with no deductions. The majority also confirmed that teachers encourage collaboration and cooperative learning. A minority of 27 respondents, however, experienced that the teachers do not give any consideration at all. These results are shown in Table 17.

**Table 17. Perception of Teacher's Considerations of Tasks and Compliance Requirements**

| <b>Perspectives on tasks and compliance requirements</b>              | <b>Rank</b> |
|-----------------------------------------------------------------------|-------------|
| Teachers set a reasonable deadline for tasks and activities           | 1           |
| Teachers accept late submissions but deduct points.                   | 2           |
| Teachers encourage collaboration and cooperative work with classmates | 3           |
| Teachers accept late submissions with no deductions.                  | 4           |
| Teachers do not give any consideration at all.                        | 5           |

Table 18 showed that 88, or 15.60%, of students did not consider distance/online learning to be effective; 169 or 30.30%, of students, considered it slightly effective; 262 or 47.30%, moderately effective; 33 or 6.00% considered it as very effective, and 5 or 0.90% thought it as highly effective.

Table 19 shows that 160% or 2.90% of students need to learn something through distance/online classes, while 181 or 32.2% are learning inadequately. 269 or 48.40% of students are learning what they need to,

while 85 or 15.40% of students are learning rather much through distance/online classes. Only 6 or 1.10% of the students attest that they learn much through distance/online classes.

**Table 18. Students' experience with distance/online learning**

| <b>Distance/online learning level of effectiveness</b> | <b>Count</b> | <b>Percentage</b> |
|--------------------------------------------------------|--------------|-------------------|
| Not at all effective                                   | 88           | 15.60             |
| Slightly effective                                     | 169          | 30.30             |
| Moderately effective                                   | 262          | 47.30             |
| Very effective                                         | 33           | 6.00              |
| Extremely effective                                    | 5            | 0.90              |
| Total Respondents                                      | 557          | 100.00            |

**Table 19. Amount of learning gained in distance/online learning**

| <b>Amount of learning gained in distance/online learning</b> | <b>Count</b> | <b>Percentage</b> |
|--------------------------------------------------------------|--------------|-------------------|
| Not at all                                                   | 16           | 2.90              |
| Little                                                       | 181          | 32.20             |
| Some extent                                                  | 269          | 48.40             |
| Rather much                                                  | 85           | 15.40             |
| Very much                                                    | 6            | 1.10              |
| Total Respondents                                            | 557          | 100.00            |

Because of this finding, the results highlight the significance of face-to-face communication in distance/online learning for students. For students to learn and be motivated, verbal interactions between teachers and students are essential.

Table 20 indicates that 4, or 0.70 % of respondents, believed face-to-face virtual communication is unimportant, while 45 or 8.20% felt it is somewhat essential. 130, or 23.20%, feel it is moderately important; the majority, comprising 199 or 35.90% of the respondents, feel it is vital, and 179 or 32.14% say it is crucial.

**Table 20. Importance of face-to-face virtual communication in the distance/online learning**

| <b>The importance of face-to-face virtual communication</b> | <b>Count</b> | <b>Percentage</b> |
|-------------------------------------------------------------|--------------|-------------------|
| Not at all important                                        | 4            | 0.70              |
| Slightly important                                          | 45           | 8.20              |
| Moderately important                                        | 130          | 23.20             |



|                     |     |        |
|---------------------|-----|--------|
| Very important      | 199 | 35.90  |
| Extremely important | 179 | 32.14  |
| Total Respondents   | 557 | 100.00 |

However, when asked about the frequency of their one-on-one virtual discussions with their respective teachers, most respondents responded that they only interact with their teachers sometimes or occasionally. Many respondents have never had a one-on-one interaction with their teachers. This acquaintance only proves that the communication line between the teachers and the students is close to the reality of traditional face-to-face classes where students are too shy to approach their teachers for consultations. Details on the frequency of one-on-one virtual discussions are tabulated in Table 21.

**Table 21. Frequency of one-on-one virtual discussions between students and teacher**

| Frequency of one-on-one virtual discussions between students and teacher | Count | Percentage |
|--------------------------------------------------------------------------|-------|------------|
| Never                                                                    | 155   | 27.80      |
| Occasionally                                                             | 124   | 22.60      |
| Sometimes                                                                | 176   | 31.60      |
| Often                                                                    | 90    | 16.10      |
| Always                                                                   | 12    | 2.10       |
| Total Respondents                                                        | 557   | 100.00     |

The researchers asked the respondents for opinions to explore the best distance/online learning method. The majority of them chose online asynchronous methodology. This result may be because the internet infrastructure could be more stable, and the students can work independently. On another note, the second group of respondents still choose the online synchronous methodology despite their challenges. These students still prefer the interaction they get from the online discussions provided by the teachers. Some prefer printed modules, and a few mentioned that the methods suggested could be better. Others suggest a combination of methodologies. Table 22 highlights these findings.

**Table 22. Perception of the Best Distance/Online Learning Methodology**

| Distance/Online Learning Methodology | Count | Percentage |
|--------------------------------------|-------|------------|
| Online Synchronous                   | 183   | 32.85      |
| Online Asynchronous                  | 279   | 50.09      |

|                   |     |        |
|-------------------|-----|--------|
| Printed Modules   | 32  | 5.75   |
| None at all       | 37  | 6.64   |
| Others            | 26  | 4.67   |
| Total Respondents | 557 | 100.00 |

he final question asked from the respondents to assess the effectiveness of the methodology implemented in this pandemic is their overall learning experience compared to the traditional face-to-face learning in school. The majority felt that distance/online learning is somewhat worse than face-to-face learning in school, while some attested that it is much worse than face-to-face learning in school. 61 out of 557 respondents believe it is the same as face-to-face learning in school, while 31 said it was somewhat better than face-to-face learning in school. Only a handful of students believe it is much better than face-to-face learning in school. Table 23 details these findings.

**Table 23. Student's Overall Experience with Distance/Online Learning**

| Overall Experience with Distance/Online Learning     | Count | Percentage |
|------------------------------------------------------|-------|------------|
| Much worse than face-to-face learning in school      | 158   | 28.37      |
| Somewhat worse than face-to-face learning in school  | 294   | 52.78      |
| Just the same as face-to-face learning in school     | 61    | 10.95      |
| Somewhat better than face-to-face learning in school | 31    | 5.57       |
| Much better than face-to-face learning in school     | 13    | 2.33       |
| Total Respondents                                    | 557   | 100.00     |

## Conclusions

Based on the initial results, the following conclusions were drawn:

1. Based on the findings, most students who participated in the survey belong to technical programs such as engineering and computer studies. This result is because the participating institutions mainly offer technical-related programs. The most significant number of responses came from third-year students, while the most negligible one came from fifth-year students. This finding concludes that third-year students are greatly affected by the changes brought about by

distance/online learning and were more open to participating in the survey, in which most are female. The participating institutions mostly implemented a combination of online synchronous and asynchronous modalities in their teaching delivery. The result showed that most students are moderately satisfied with how their institutions deliver their online classes. The numbers also showed that most students need a stable internet connection and use a smartphone as their learning device. Further, although some do not have a conducive learning space at home, the majority were able to study in a moderately peaceful environment. Hence, the resilience and determination of the learner towards learning are tested in this aspect of distance/online learning.

2. The challenges encountered by students in the conduct of distance/online learning vary and start with the conduciveness to learning of their environment, instability of the internet connection during distance/online learning and the limited resource or device for learning as a number of them share devices, while most use a smartphone. This situation challenges visual learners' comprehension since smartphones have smaller screen sizes than tablets or laptops. The time spent by each learner also creates a challenge since the students need help managing their time with too many tasks to comply with. Furthermore, since this is a distance/online class, all performance tasks require longer online time. An unstable internet connection makes balancing lesson comprehension and task compliance challenging. Hence, it is vital to create micro lessons that will meet the lesson's objectives and can be performed quickly so the students can manage their time among the various courses they have for the semester.
3. Despite the findings that there are too many tasks to comply with, most respondents believed that the teachers are moderately helpful and that they set a deadline for tasks and activities. There is also evidence that teachers still accept late submissions with or without point deductions. Teachers also encourage collaboration and cooperative learning among the students. A handful, though, attests that the teachers do not give any consideration at all. Moreover, according to the respondents, there is no evidence that schools and universities need to provide students with learning resources for distance/online learning. Therefore, the schools/university is committed to providing quality education amid the pandemic.
4. Students have mixed opinions on the essence of effectiveness and the extent of learning they experience through distance/online education. The results provided information on what schools and universities must do to effectively deliver distance/online learning to their students.

### **Recommendations**

Based on the findings and conclusions, the researchers enumerate the following recommendations for schools and universities to consider when delivering quality education through distance/online learning:

1. Conduct an assessment of the student's readiness for distance/online learning.
2. Align the teaching-learning modality to the demographic profile of the learners.
3. Train the teachers on new tools and strategies that can be used for distance/online learning.
4. Monitor student performance regularly to be able to identify technologically challenged learners.
5. Implement regular virtual consultations and follow-ups for students struggling with the lessons.
6. Provide immediate feedback to students for every task or activity they comply with. These responses will ensure regular interaction between the teachers and the students.

Learn from the student's experience as well as the teachers'. Note the gaps that need to be bridged in every situation.

### **Bibliography**

1. Adnan, M., & Anwar, K. (2020). Online learning amid the COVID-19 pandemic: Students' perspectives. Retrieved from <https://eric.ed.gov/?id=ED606496>.
2. Alawamleh, M., Al-Twait, L.M., & Gharam Raafat Al-Saht, G.R. (2020). The effect of online learning on communication between instructors and students during the Covid-19 pandemic. Retrieved from [https://www.emerald.com/insight/content/doi/10.1108/AEDS-06-2020-0131/full/html?utm\\_source=rss&utm\\_medium=feed&utm\\_campaign=rss\\_journalLatest](https://www.emerald.com/insight/content/doi/10.1108/AEDS-06-2020-0131/full/html?utm_source=rss&utm_medium=feed&utm_campaign=rss_journalLatest).
3. Amir, L. R., Tanti, I., Maharani, D. A., Wimardhani, Y.S., Julia, V., Sulijaya, B., & Ria Puspitawati, R. (2020). Student perspective of classroom and distance learning during the COVID-19 pandemic in the undergraduate dental study program Universitas Indonesia. Retrieved from <https://bmcmmededuc.biomedcentral.com/articles/10.1186/s12909-020-02312-0>.
4. Bahasoan, A., Ayuandiani, W., Mukhram, M., & Rahmat, A. (2020). Effectiveness of online learning in the COVID-19 pandemic. Retrieved from <https://ijstm.inarah.co.id/index.php/ijstm/article/view/30>.

5. Bates, T. (2016). Online learning for beginners: 1. What is online learning? Retrieved from <https://www.tonybates.ca/2016/07/15/online-learning-for-beginners-1-what-is-online-learning/>.
6. Gautam, P. (2020). Advantages and disadvantages of online learning. Retrieved from <https://elearningindustry.com/advantages-and-disadvantages-online-learning>.
7. Darius, P.S., Gundabattini, E., and Solomon, D. G. (2021). A survey on the effectiveness of online teaching–learning methods for university and college students. Retrieved from <https://link.springer.com/article/10.1007/s40031-021-00581-x>.
8. Dubey, P., & Deepak Pandey, D. (2020). Distance learning in higher education during a pandemic: challenges and opportunities. Retrieved from [https://www.researchgate.net/profile/Pushkar-Dubey-2/publication/341641775\\_Distance\\_Learning\\_in\\_Higher\\_Education\\_during\\_Pandemic\\_Challenges\\_and\\_Opportunities/links/5eccc85ba6fdcc90d699ad9a/Distance-Learning-in-Higher-Education-during-Pandemic-Challenges-and-Opportunities.pdf](https://www.researchgate.net/profile/Pushkar-Dubey-2/publication/341641775_Distance_Learning_in_Higher_Education_during_Pandemic_Challenges_and_Opportunities/links/5eccc85ba6fdcc90d699ad9a/Distance-Learning-in-Higher-Education-during-Pandemic-Challenges-and-Opportunities.pdf).
9. Dudovskiy, J. (2018). The Ultimate Guide to Writing a Dissertation in Business Studies: A Step-by-Step Assistance. Retrieved from <https://research-methodology.net/about-us/ebook>
10. Kruszewska, A., Nazaruk, S., and Szewczy, A. (2020). Polish teachers of early education in the face of distance learning during the COVID-19 pandemic– the difficulties experienced and suggestions for the future. Retrieved from <https://www.tandfonline.com/doi/full/10.1080/03004279.2020.1849346?scroll=top&needAccess=true>.
11. Nae, N. (2020). Online learning during the pandemic: Where does Japan stand? Retrieved from [https://www.researchgate.net/publication/342505298\\_ONLINE\\_LEARNING\\_DURING\\_THE\\_PANDEMIC\\_WHERE\\_DOES\\_JAPAN\\_STAND](https://www.researchgate.net/publication/342505298_ONLINE_LEARNING_DURING_THE_PANDEMIC_WHERE_DOES_JAPAN_STAND).
12. Özüdoğru, G. (2021). Problems faced in distance education during Covid-19 Pandemic <https://files.eric.ed.gov/fulltext/EJ1300914.pdf>.
13. Question Pro (2021). Top 10 distance learning survey questions for students with examples. Retrieved from <https://www.questionpro.com/blog/distance-learning-survey-questions-for-students/>.
14. Rudenko, E., Bachieva, R., Aligadzhieva, A., Temirhanova, Z., & Archilaeva, A. (2020). Distance learning during the pandemic: managing the challenges. Retrieved from [https://www.e3sconferences.org/articles/e3sconf/abs/2020/70/e3sconf\\_itse2020\\_18038/e3sconf\\_itse2020\\_18038.html](https://www.e3sconferences.org/articles/e3sconf/abs/2020/70/e3sconf_itse2020_18038/e3sconf_itse2020_18038.html).
15. Todri, A., Papajorgji, P., Moskowitz, H., & Scalera, F. Perceptions regarding Distance Learning in Higher Education, Smoothing the Transition. Retrieved from

<https://www.cedtech.net/article/perceptions-regarding-distance-learning-in-higher-education-smoothing-the-transition-9274>.

16. Utomo, M., Sudaryanto, M., & Saddhono, K. (2020). Tools and Strategy for Distance Learning to Respond to COVID-19 Pandemic in Indonesia. Retrieved from [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3795853](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3795853).