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The Effect of the COVID-19 on Students' Learning Model Preferences in the New Normal Era

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Abstrak. Pandemi COVID-19 telah berdampak pada berbagai aspek kehidupan manusia, termasuk institusi pendidikan. Sejak pandemi ini, model pembelajaran berubah dari luring menjadi daring murni pada masa puncak pandemi, kemudian menjadi hibrid (daring dan luring secara bersamaan) pada saat pandemi mulai mereda, dan akhirnya kembali menjadi luring pada masa normal. Penelitian ini bertujuan untuk melihat apakah terdapat pengaruh pandemi COVID-19 atau pengaruh perubahan model pembelajaran terhadap preferensi model pembelajaran mahasiswa UNAI di era new normal saat ini. Populasi dalam penelitian ini adalah seluruh mahasiswa UNAI yang mengikuti pembelajaran luring pada semester gasal 2023/2024 yang berjumlah 1223 orang, dengan sampel acak sebanyak 125 orang. Angket yang berisi 18 pertanyaan tentang kegiatan pembelajaran, hasil belajar dan kegiatan ekstrakurikuler, dibuat dalam Google form, dan diisi oleh sampel secara sukarela. Hasil penelitian menunjukkan terdapat 31,2% siswa lebih senang atau puas dengan kegiatan pembelajaran daring dibandingkan offline, 31,4% siswa merasa puas dengan hasil pembelajaran daring, dan 31,2% siswa merasa puas dengan kegiatan ekstrakurikuler. Artinya, pembelajaran daring di masa pandemi COVID-19 setidaknya berdampak pada 31% siswa yang puas dengan pembelajaran daring. Tidak terdapat perbedaan rata-rata kepuasan yang signifikan antara mahasiswa laki-laki dan perempuan dalam pembelajaran daring, namun dari segi kelas terdapat perbedaan rata-rata kepuasan yang signifikan setiap angkatan (tahun masuk) mahasiswa dimana angkatan 2022 (mahasiswa baru) adalah yang tertinggi. Dan menurut fakultas, terdapat perbedaan rata-rata kepuasan mahasiswa yang signifikan diantara 6 fakultas yang ada, dimana mahasiswa fakultas IPA mempunyai kepuasan yang paling tinggi. Sekitar sepertiga siswa mengalami perubahan selama masa normal baru akibat pandemi COVID-19
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Kata Kunci :Kepuasan, Normal Era, Pandemik COVID-19, Pembelajaran Online and offline

Abstract. *The COVID-19 pandemic has affected various aspects of human life, including educational institutions. Since this pandemic, the learning model has changed from offline to pure online during the peak of the pandemic, then to hybrid (online and offline simultaneously) when the pandemic has begun to decrease, and finally returning to offline during normal era. This study aims to see whether there is an influence of the COVID-19 pandemic, or the influence of changes in learning models, on the learning model preferences of UNAI students in the current new normal era. The population in this study were all UNAI students taking offline learning in the odd semester of 2023/2024, totaling 1223 people, with a random sample of 125 people. The questionnaire containing 18 questions about learning activities, learning outcomes and extracurricular activities, was made in a Google form, and was filled in by a sample voluntarily. The results showed that there were 31.2% of students who were happier or satisfied with online learning activities than offline, 31.4% of students were satisfied with online learning outcomes, and 31.2% of students were satisfied with extracurricular activities. This means that online learning during the COVID-19 pandemic has affected at least 31% of students who are satisfied with online learning. There is no significant difference in the average satisfaction between male and female students in online learning, but in terms of class there is a significant difference in the average satisfaction for each batch (year of entry) of students where the 2022 batch (new students) is the highest. And according to the faculties, there is a significant difference in the average student satisfaction among the 6 existing faculties, where Science faculty students have the highest satisfaction. Around a third of students have experienced changes during the new normal period due to the COVID-19 pandemic.*

Key words*: Normal Era, Online and offline learning, pandemic COVID-19, satisfaction.*

INTRODUCTION

The COVID-19 pandemic that started in 2020 has had a lot of influence on all aspects of human life (Wijaya, et al.,2020; Pratiwi,2020; Kusnayat,2020), including the world of education, including higher education including at the Indonesian Adventist University (UNAI) in Bandung. Learning activities that were previously carried out face-to-face in class (offline), forced to go online with zoom meetings. As the COVID-19 pandemic subsides, in accordance with the policy of the government of the Republic of Indonesia, the learning model has been returned to offline since 2023, starting with hybrid learning (online learning for those living in dormitories on the UNAI campus and offline for those living off campus) since 2022.

In previous research conducted by the author, it was found that the COVID-19 pandemic had an effect on student achievement (Limbong, 2020) where student academic achievement increased. However, lecturer performance scores (student assessment results of lecturers in online learning) experienced a slight increase even though this increase was not significantly different from offline learning before the pandemic (Limbong,2021). The performance of UNAI institutions during the pandemic was maintained during the pandemic, activities of research increased, financial conditions continued to improve even though there was a slight decrease in the number of students (Limbong, 2021). Research results have also been obtained about the effect of learning models, changing from offline to online, then to hybrid and back to offline, on student stress levels where the stress level of UNAI students is low (Angelica, and Tambunan, 2021; Limbong, 2022).

The purpose of this study is to see whether there is an influence from the COVID-19 pandemic, which has occurred since 2020 until now, in 2023, on preferences for learning models. What percentage of students prefer or are more satisfied with online learning models than offline ones? Is there a difference in the percentage of students who prefer online to offline between male and female students, between years of admission to UNAI and faculties?

METHODOLOGY

Population and Sampel

The population in this study were all students who registered in the 2022/2023 even semester and were on the UNAI campus for offline learning. The number of population and sample is given in the following table.

Table 1. The Number of Population and Sample in Each Faculty

Faculties	Population	Sample
Economy (FE)	384	44
Nursing (FN)	253	33
Information Technology (FIT)	287	25
Philosophy (FP)	122	14
Science (FS)	95	3
Teacher Training (FTT)	82	6
Total	1223	125

From a university perspective, the number of samples represented the population, although from a faculty point of view (eg. Science and Teacher Training and Education) it was considered less representative in terms of numbers. The sample is students who voluntarily fill out a questionnaire made in the Google form and available online. So that the sample is believed to represent the population, because it was chosen randomly. From this sample, there were 64 male and 61 female. In terms of gender proportion, the sample can also represent the population, where the number of male and female students is almost equal. The number of samples according to class is 40 class of 2022

(new students), 35 class of 2021, 27 class of 2020, and 23 class of 2019 and earlier. In terms of force, the number of samples is sufficient to represent the population.

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Questionnaire

The research questionnaire consisted of 18 questions, 6 questions related to perceptions of changes in learning activities, 5 questions related to material understanding and academic achievement, and 7 questions related to student extracurricular activities. The research questionnaire is provided in the form of a Google form which is available online. The questions in the google form are given in the following table.

Table 2. Question Items in Google Form Questionnaire

No	Question
A	**Learning Activities**
A1	For all courses, I prefer online classes than offline ones
A2	For certain course (practice, laboratory, etc.) I prefer online classes than offline ones
A3	I prefer online classes than offline at certain condition (wheather, sickness, etc.)
A4	I prefer classes conducted alternately between online and offline classes
A5	I am more focused during online courses than offline ones
A6	I am more satisfied during online classes than offline ones
B	**Learning performances**
B1	For all courses, I understand more during online classes than offline ones
B2	For some courses, I understand more during online classes than offline ones
B3	I achieved more (my grades and GPA were better) during online classes than offline ones
B4	Academically, in general I am more qualified during online classes than online ones
B5	I am more statisfied in academic achievement during online classes than offline ones
C	**Extra-curricular activities**
C1	I prefer all extracurricular activities conducted onlinely than offlinely
C2	I prefer certain extracurricular activities (general lectures, seminars, etc) conducted onlinely than offlinely
C3	I prefer registration and courses consultation conducted onlinely than offlinely
C4	I prefer consultation for reasearch, thesis, etc, conducted onlinely than offlinely
C5	I am more complied or disciplined during the online learning than offline
C6	My character building is better during the online learning than offline
C7	I am more satisfied in extracurrilar activities during the online learning than offline

Questions in part A of the questionnaire are about whether students are more happy or satisfied with online learning activities than offline, part B is about whether students are more happy or satisfied with learning outcomes online than offline, and questions in part C are about whether

students are more happy with learning activities extracurricular or character development. The answer options for each question were strongly disagree, disagree, undecided, agree and strongly agree. The questionnaire was tested on 25 students to see its validity and reliability and it was found that the questionnaire was valid for all items having a correlation coefficient above 0.99 with a record that the correlation was significant at 0.01 level (2-tailed) and reliable with a Cronbach's alpha value of 0.78, given in table 3.

Table 3. Data of Cronbach's Alpha for Reliability Testing

Cronbach's Alpha	N of Items
0.777	19

Data analysis

The data was processed statistically, using SPSS or Excel, first by looking at the percentage (%) who answered strongly disagree, disagree, undecided, agree and strongly agree for the 18 questions in the questionnaire. This data is to see whether according to students online learning is more satisfying than offline in terms of learning activities, academic achievement and satisfaction in extracurricular activities.

The data was also analyzed using ANOVA to see if there were differences in student satisfaction in online vs offline learning according to gender, class or faculty. The hypothesis in this study is as follows:

1. Satisfaction with online learning by gender:
H01: There is no difference in online learning satisfaction according to gender
Ha1: There are differences in online learning satisfaction according to gender

2. Satisfaction with online learning by level:
H02: There is no difference in online learning satisfaction according to students by grade level.
Ha2: There are differences in online learning satisfaction according to level.

3. Satisfaction with online learning by faculty
H03: There is no difference in online learning satisfaction according to students by faculty.
Ha3: There are differences in online learning satisfaction according to students by faculty.

RESULTS AND DISCUSSION

a. Student satisfaction in activities and learning outcomes and student activities

The percentage of students who are happy or satisfied with online learning rather than offline is given in table 4 below. The percentage data consists of 3 parts, the first part is those who answer agree and strongly agree (A/SA), the second is those who answer disagree and strongly disagree (D/SD), and the third is those who answer in doubt.

From table 4 it can be seen from row A6 that 31.2% of students are satisfied or very satisfied with online learning activities rather than offline, and this figure is almost the same as the percentage of students who are dissatisfied or very dissatisfied with online learning. What is more dominant is that students feel happy or very happy in certain learning, for example laboratories, in certain circumstances, for example for reasons of health or weather, and learning that is carried out varies between online and offline. This result in line with the previous study with larger sample of 283 students from one private, non-profit institution in Saudi Arabia. The result revealed that average of students are satisfied with online learning program that has been quickly prepared to respond the pandemic COVID-19 situation for example selected of learning, IT support and others (Almusharraf, N. & Khahro, S. (2020). However, the result of this study also revealed the number of students who

are dissatisfied is almost similar with the number of students who are satisfied. Dissatisfaction in online learning often occurred due to some challenges such as lack of resources and internet services (internet coverage), lack of interaction, distraction at home (inconducive environment), lack of activities, and difficulty in setting a routine for online learning (Faize & Nawas, 2020; Mohamad, 2020; Maatuk et al, 2022). In underdeveloped country such as Pakistan highlighted that online learning cannot produce desired results because majority of students are unable to access the internet due to technical as well as monetary issues (Muhammad & Anwar, 2020).

Table 4. Percentage Agreed/Strongly Agreed (A/SA), Disagreed/Strongly Disagreed (D/SD) and doubtful (neutral) in online learning rather than offline

No	Question items			
A	**Learning Activities**	**A/SA**	**D/SD**	**Neutral**
A1	For all courses, I prefer online classes	32.8%	26.4%	40.8%
A2	For certain course (practice, laboratory, etc.) I prefer online classes	74.4%	17.6%	8.0%
A3	I prefer online classes than offline at certain condition (wheather, sickness, etc.)	74.4%	16.8%	8.8%
A4	I prefer classes conducted alternately between online and offline classes	67.2%	14.4%	18.4%
A5	I am more focused during online courses	24.0%	40.8%	35.2%
A6	I am more satisfied during online classes	31.2%	32.8%	36.0%
B	**Learning performance**			
B1	For all courses, I understand more during online classes	24.0%	39.2%	36.8%
B2	For some courses, I understand more during online classes	67.2%	13.6%	19.2%
B3	I achieved more (my grades and GPA were better)	40.8%	30.4%	28.8%
B4	I am more qualified during online classes	25.6%	36.0%	38.4%
B5	I more satisfied with my learning performance	34.4%	29.6%	36.0%
C	**Extra-curricular activities**			
C1	I prefer all extra-curricular activities onlinely	55.2%	27.2%	17.6%
C2	I prefer some online extra-curricular activities	23.2%	55.2%	21.6%
C3	I prefer online registration and course consultation	75.2%	16.0%	8.8%
C4	I prefer online consultation for research, thesis, etc,	31.2%	36.8%	29.6%
C5	I am more complied or disciplined	35.2%	29.6%	35.2%
C6	My character building is better	23.2%	39.2%	37.6%
C7	I am more satisfied in extracurricular activites	31.2%	45.6%	23.2%

In terms of learning outcomes or academic achievement, 34.4% of students are satisfied or very satisfied (line B5), this is greater than the 39.2% of students who are dissatisfied or very dissatisfied with online learning outcomes compared to offline. This percentage is proportional to the percentage of students who say that their academic achievement (Semester Achievement Index or GPA) is better during online learning than offline, where 40.8% of students say their GPA is better compared to 30.4% (row B3) who say otherwise. This increase in learning outcomes in online learning during the Covid-19 pandemic is in accordance with the results of previous research [4]. However, students admit that learning outcomes are better for some subjects (learning), not for all of them. This is shown in line B2, where 67.2% of students said they understood online learning more for only part of the lesson. While 39.2% of students said no to all learning, only 24.0% said they understood all learning (line B1).

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In student extracurricular activities, 45.6% of students said they were not satisfied or very satisfied with student activities carried out online during the COVID-19 pandemic, this figure was quite significant different from those who said they were satisfied or very satisfied, namely 31.2%. This is different from the percentage of student satisfaction with online learning activities and results. During the COVID-19 pandemic where students lived with their parents, students lost the opportunity to interact with fellow students, for example sports activities, cultural arts training, other character development activities. However, there are certain student activities where students feel more comfortable doing it online, for example public lectures, seminars, assemblies, registration, and so on. Specifically for registration, 75.2% of students said they were happy with online registration, compared to 16.0% said they were not happy (line C3). In terms of character development programs, such as devotionals and other spiritual activities, more students (39.2%) said they did not like being carried out online, and only 23.2% (line C6) said they liked character development activities being carried out online.

Statisfaction Based on Gender

An interesting question that needs to be answered is whether there are differences in the level of student satisfaction in the results of activities and learning outcomes, and in student extracurricular activities between male and female students? Table 5 shows the average student satisfaction data for learning activities (A), learning outcomes (B) and student extracurricular activities (C). The average percentage in the table is the average percentage for all question items in areas A, B and C, for men and women. At first glance it seems that the average male satisfaction level is slightly higher than the average female satisfaction level for the three fields. However, it is necessary to carry out an ANOVA test to see whether the difference is significant or not. In table 6, the results of the ANOVA test are given for the percentage of satisfaction according to gender (male, female) and sector (A, B, C).

Tabel 5. Satisfaction Percentage for Each Gender Batch and Section

Gender/Category	A	B	C
Male	26.6%	32.2%	31.0%
Female	25.7%	29.8%	30.7%

Table 6. Satisfaction Percentage Based on Gender and Sections for ANOVA Testing

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Rows (Gender)	0.00021	1	0.00021	3.718873	0.1936	18.51282
Columns (Section)	0.003064	2	0.001532	27.12818	0.035552	19
Total	0.003387	5				

From table 6 it can be seen that the ANOVA test for gender has a significance value (p-value) of 0.1936, this figure is greater than alpha/2 (0.05/2 = 0.025) this means that there is no significant difference in the average satisfaction of male students with girls. ANOVA test for satisfaction fields (A, B, C), the p-value is 0.0356 which is also greater than alpha/2, so it can be concluded that there is no significant difference in the percentage of satisfaction for each field between men and women. The results of the ANOVA test show that the satisfaction levels of male and female students in learning activities, learning outcomes, and learning activities are relatively the same. This study is supported by the previous study that there is no different between male and female students' satisfaction on online learning before, and during the pandemic COVID-19 (Hung et al., 2010; Goswami and Dutta 2016; Mohamad, et al., 2020; Hettiarachchi, 2021).

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Satisfaction Based on Batch

The next question that needs to be answered is whether there is a significant difference in the level of student satisfaction according to the year of entry (class)? Table 7 below shows the average student satisfaction by class entering UNAI. Whereas in the following table the results of the ANOVA test show the level of satisfaction by class.

Table 7. Satisfaction Percentage for Each Batch and Section

Batch/Category	A	B	C
B2022	32.1%	34.0%	34.6%
B2021	24.3%	37.1%	35.2%
B2020	24.3%	24.4%	26.6%
B2019 and Senior	19.6%	19.1%	19.3%

From table 8 it can be seen at a glance that the average satisfaction of new students (Class of 2022) is greater than the other batches, and the longer these students are in college the lower the average satisfaction. However, is the average satisfaction significantly different in terms of class and category? In table 8 is shown the data for ANOVA testing.

Table 8. Satisfaction Percentage Based on Batches and Sections

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Rows (Batch)	0.039331	3	0.01311	12.00929	0.006014	4.757063
Columns (Category)	0.003769	2	0.001885	1.72637	0.255729	5.143253
Total	0.049651	11				

From table 8 it can be seen that the p-value for the class is 0.006, this figure is smaller than alpha (0.05), this means that there is a significant difference in the average satisfaction between students according to class. Then the p-value for the fields (A, B and C) is 0.256, this is far greater than the alpha value, so it can be concluded that there is no difference in the average satisfaction in the fields of learning activities (A), learning outcomes (B) and extracurricular activities students (C) for each batch.

Statisfaction Based on Faculty

The final question that is important to answer is whether there is a significant difference in the level of student satisfaction by faculty? Table 9 shows the average data on student satisfaction by faculty of economics (FE), faculty of information technology (FIT), faculty of philosophy (FP), faculty of nursing (FN) and faculty of Science (FS). It can be seen that the average satisfaction varies from one faculty to another, where the highest is the Faculty of Mathematics and Natural Sciences (FS), followed by the Faculty of Philosophy (FP), while the lowest is the Faculty of Economics (FE). The difference also revealed in previous study that Science and Engineering and Social Sciences students were more satisfied with the process than the Medicine and Health Sciences students (Simsek, et al., 2021). However, the average difference in satisfaction significant between the faculty need to be further examined.

Table 9. Satisfaction Percentage for Each Faculty and Category

Category/Faculty	FE	FIT	FP	FN	FS	FTT
A	22.0%	22.0%	35.7%	24.7%	50.0%	19.4%
B	28.6%	25.6%	41.4%	30.9%	40.0%	20.0%

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C	26.8%	26.2%	44.9%	30.1%	49.5%	27.0%

In table 10, the results of the ANOVA test are given for the average satisfaction by class and field. The table shows that the significance value (p-value) for the fields is 0.079. This value is greater than 0.05, this means that there is no significant difference in the average satisfaction for the three fields (learning activities, learning outcomes, and student activities) for all faculties. Whereas for faculties the p-value is 0.0000266, this value is much smaller than 0.05, so it can be concluded that the average student satisfaction differs significantly between the 6 faculties at UNAI.

Table 10. Satisfaction Percentage Based on Faculties and Sections for ANOVA Testing.

ANOVA

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Rows (Section)	0.007883	2	0.003942	3.298477	0.079407	4.102821
Columns (Faculty)	0.145675	5	0.029135	24.3817	2.66E-05	3.325835
Total	0.165507	17				

CONCLUSION AND SUGGESTION

There is no significant difference in the average satisfaction of male and female students for learning activities, learning outcomes and student extracurricular activities. However, in terms of the incoming class, there is a significant difference in average student satisfaction between the 2022 batch (new students) and other batches, where new students have a higher level of satisfaction. From the faculty side, there is a significant difference in the average student satisfaction in the 6 faculties at UNAI, where the highest average student satisfaction in the MIPA faculty is followed by Philosophy faculty students and the smallest is the average student satisfaction in the Economics faculty. Student satisfaction can be influenced by the creativity of lecturers who teach in their respective faculties in preparing learning materials and online learning processes that are carried out. So that satisfaction data can be used as an indication of which faculty lecturers are more prepared to conduct online learning.

Learning is carried out in various ways, alternately online or offline, taking into account certain circumstances, for example the weather does not allow coming to class or for reasons of the student's health condition. For certain lectures learning is more appropriate to do online than offline, for example learning that does not require offline laboratories or practice, while for practical or laboratory learning, for example offline learning is more appropriate. The implication of these results is that it is necessary to choose the right learning model (online or offline) for each appropriate subject to achieve these learning objectives. By choosing an appropriate learning model, online or offline, supported by the right learning resources, students can improve their academic achievement.

Extracurricular activities are generally more appropriate to be carried out offline, except for certain activities such as tutoring during registration, thesis guidance and certain other activities. Student character will develop more when students can interact directly with other students directly (offline). Moreover, in a certain mission carried out at the Adventist University of Indonesia, namely developing spiritual character, it is more appropriate to carry out these activities offline, rather than online.

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