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PAPER

Students' Voices on Online Learning: Constraints, **Dissatisfactions, and Expectations**

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ABSTRACT

There is no longer an emergency situation that requires full online learning in education, as COVID-19 has subsided. However, now that digital learning has become firmly established, its integration seems inevitable. Therefore, students' feedback on their experiences with full virtual learning is crucial. It allows us to anticipate and create a well-prepared post-pandemic learning environment that integrates online classrooms effectively. The investigation of students' experiences during the shift to online learning induced by the pandemic remains relatively scarce in West Kalimantan, a province in Indonesia. This research aims to fill this knowledge gap. The study employed a descriptive quantitative method to collect the participants' experiences during online learning, aiming to describe the limitations, discontent, and expectations associated with online education. The survey collected responses from 769 undergraduate students at the university under study. The findings suggest that, despite the significant challenges of online learning, such as stable Internet connections and data quotas, Indonesian students consider themselves digitally literate and anticipate continuing to engage in online learning to supplement the traditional face-to-face classrooms they strongly desire. The lack of interviews in this study warrants further investigation to improve the findings.

KEYWORDS

online learning, constraints, dissatisfactions, expectations

1 INTRODUCTION

The World Health Organization (WHO) officially declared the end of the COVID-19 pandemic on May 5, 2023, following a comprehensive assessment of global epidemiological data and public health measures [1]. Indonesia also supports the decision to lift the public health emergency of international concern (PHEIC) status for COVID-19. Prior to the announcement, the Indonesian government had approved a transitional phase from pandemic to endemic conditions. This allowed

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for a combination of online and in-person learning while adhering to COVID-19 safety protocols [2]. Research on online learning conducted during the pandemic is of considerable importance for continuously assessing and improving the quality of online education. The significance of this stems from the understanding that, even as the present pandemic subsides, online learning will continue as a result of the pandemic's impact, further contributing to the integration of digital technologies in education.

While online learning has shown its ability to achieve educational goals [3–6], its effectiveness is not always guaranteed. Numerous studies have identified the various constraints and challenges faced by students during the implementation of online learning, especially in the higher education context, [7–13]. Both educators and students have had to adapt to challenging circumstances, requiring changes to their teaching methods and learning practices [14], [15].

In the Indonesian context, the readiness of educators to adopt digital technology remains a persistent concern. The majority of teachers are reported to have insufficient technological proficiency, with a particularly noticeable deficit noted in rural areas [16], [17]. Although various applications and tools have been developed to support teachers in online teaching, WhatsApp has emerged as the preferred platform widely used in educational institutions in this country due to its simplicity, practicality, and affordability [12], [18–20]. However, while WhatsApp facilitates a dynamic learning environment, it is widely recognized that this application may not be sufficient to meet the demands of a comprehensive and effective teaching and learning experience, primarily due to its limited facilities and features. The heavy dependence on WhatsApp for educational purposes is one of the challenges of online teaching. The survey also investigates whether Indonesian educators still heavily rely on this application to assess their readiness for delivering online courses.

This study aims to offer additional perspectives and insights from a broader range of participants on the challenges associated with online teaching and learning approaches in Indonesia, with a specific focus on the context of the pandemic. The findings of this study are significant in informing the Indonesian government, prompting them to consider policy reforms aimed at improving the design and delivery of online classes to better align with the preferences and requirements of students. No previous quantitative study has been conducted within the scope of the university under examination, which is the sole public institution in the province, focusing on online learning and encompassing a substantial student cohort. Consequently, the results of this study are expected to set a significant and exemplary standard for other higher education institutions within the province. These findings are poised to help these institutions prepare to create an inclusive learning environment that integrates digital and online learning methodologies.

The main objective of this study is to fill this existing research gap and provide valuable insights into this field. Through these insights, relevant educational institutions and policymakers can receive informed guidance on integrating online learning into the educational framework. Furthermore, this knowledge can help them consider allocating the necessary resources and facilities to support the learning process.

This study also explores aspects that have received relatively limited attention in other related scholarly articles, including students' dissatisfaction with learning and their specific experiences in online education. As a result, the

main objective of this research is to investigate responses to the following three inquiries:

- **1.** What challenges did students encounter during the implementation of online teaching and learning approaches amidst the COVID-19 pandemic?
- **2.** What aspects of online teaching and learning methods used during the COVID-19 pandemic led to negative reactions from students?
- **3.** To what extent did students have specific expectations regarding online learning during the COVID-19 pandemic?

2 RELATED WORK

2.1 Theory of online learning

Online learning, commonly referred to as distance education, includes both synchronous and asynchronous instruction. Synchronous instruction involves real-time engagement, while asynchronous instruction allows learners to progress autonomously without immediate interpersonal interaction. Singh and Thurman [21] emphasize that online learning requires the use of Internet-enabled devices, such as smartphones or laptops, in both synchronous and asynchronous instructional settings. Its growing popularity in recent times indicates a rising trend, giving students the opportunity to access educational content from any location and at their own pace. It is worth noting that online learning is part of the broader scope of distance education, which previously depended on physical print materials to overcome geographical disparities. Presently, distance education has evolved to a mode that can be entirely conducted through online and e-learning platforms, or a combination of online learning and traditional face-to-face classroom teaching [10].

Online learning is not a recent phenomenon. It has been a topic of ongoing discussion, encompassing both its benefits and challenges throughout its historical evolution. Traditionally, online learning was primarily associated with distance education. However, the current discussion on online learning has been significantly influenced by the demands imposed by the COVID-19 pandemic. It is crucial to acknowledge that the pandemic has not only accelerated the adoption of online learning as an alternative method, but it has also disrupted the traditional educational model. This model was based on students' familiarity with in-person teaching interactions due to the proximity of their homes to educational institutions. Consequently, the COVID-19 pandemic has compelled a significant number of educational institutions, especially those at the tertiary level, to shift to either fully online learning or a hybrid pedagogical approach that integrates online and in-person components [22].

The increasing popularity of online learning in recent years can be attributed to its inherent advantages, particularly the convenience and flexibility it offers, as well as significant technological advancements that have improved students' access to instructional materials and facilitated interaction with educators and peers. The surge in online learning has been significantly amplified by the transformative impact of the COVID-19 pandemic. The integration of online pedagogical technologies in higher education in the United States has shown significant growth, reaching a valuation of US\$20 billion in 2019 before the COVID-19 pandemic began. Forecasts suggest that this growth trend is expected to accelerate significantly, with projections estimating a remarkable valuation of US\$350 billion by the year 2030 [23]. In the educational

sector, the transition from traditional face-to-face learning to an online environment between teachers and students has resulted in increased internet usage [24].

2.2 Studies on online learning

Online learning requires a complete upgrade of technology, either in the application or in the instructors' readiness of skills. It also requires skills, practice, time, and money [25]. However, even before the pandemic, an increasing number of educators have been using technology to assist in running their classrooms and have been applying a gamification approach, which requires an internet connection as well as the instructors' skill in utilizing the technology [26]. This condition should greatly facilitate the running of online classes. In fact, COVID-19 has revealed challenges in implementing online technologies in educational settings.

Previous studies have suggested significant challenges related to online learning, including variations in the quality of educational instructions, difficulties in accessing essential technology such as high-speed internet, and technology readiness [12], [13], [27]. Other challenges that students faced, which hindered their enjoyment of online learning, included limited interaction, social and emotional isolation, and the need for social distancing [11], [13]. Xu and Jaggars [28] also found in their research on distance learning that students who already faced difficulties in their academic environment during face-to-face learning are more likely to achieve lower grades in distance learning. The findings from the research conducted by Nashir and Laili [29] indicate that 91% of the 103 students surveyed prefer face-to-face class interaction over online learning. Unstable internet signals and high costs were some of the main factors demotivating students from studying online.

3 METHODOLOGY

A descriptive quantitative approach was utilized, involving the random sampling of 769 undergraduate students enrolled in the second and fourth semesters at Tanjungpura University. The students were selected from these specific semesters based on their demonstrated high level of engagement and active participation in their respective courses. They responded to the questionnaire distributed online using the Google Forms application. The primary data were collected using a 5-point Likert scale, which allowed respondents to choose and rate several options ranging from 1 (strongly disagree) to 5 (strongly agree).

The reliability of the questionnaire was examined, and it was found that the overall Cronbach's alpha coefficient of the questionnaire was 0.69, indicating an acceptable level of internal consistency. A Cronbach's alpha coefficient greater than 0.60 indicates high reliability and is considered an acceptable measure. Coefficients ranging from 0.60 to 0.80 are considered moderately acceptable, while values between 0.80 and 1.00 are regarded as highly reliable. [30–32].

The student survey was conducted in three distinct parts. The first segment aimed to identify the challenges that students encounter during online learning. The second segment aimed to determine their dislikes or areas of dissatisfaction regarding online learning. Lastly, the third part of the survey was designed to gather students' expectations regarding online learning. The data obtained from the survey were subsequently analyzed using the Statistical Package for Social Sciences (SPSS) software, specifically version 25. The mean and standard deviation (SD) were calculated for the set of

20 Likert scale items and are subsequently reported in the findings section. Additionally, the data has been represented in the form of percentages for greater clarity.

Table 1. Interpretation of the mean score

Mean Score	Interpretation
4.30 to 5	Very high
3.50 to 4.29	High
2.70 to 3.49	Moderate
1.90 to 2.69	Low
1.00 to 1.89	Very low

Source: [33].

4 RESULTS

4.1 Results

This study examines three main aspects of online learning: first, the challenges students face during their online learning experiences; second, their dissatisfaction with specific aspects of online learning; and finally, their expectations for studying in an online educational environment. The survey received responses from a total of 769 undergraduate students who were actively enrolled in the second and fourth semesters across various academic departments within the university.

Table 2 presents an analysis of descriptive statistics related to the challenges encountered during the complete implementation of online learning. In contrast, Table 3 examines students' dissatisfaction with online learning, especially in the context of the COVID-19 pandemic. Finally, Table 4 provides a visual representation of students' enthusiasm for a return to traditional face-to-face learning. The incorporation of standard deviation, mean, and percentage values offers a comprehensive overview of the main challenges, significant dissatisfactions, and students' expectations related to the implementation of online learning in the specific province of Indonesia.

Table 2. Constraints students experienced during online learning

No	Statements	Strongly Disagree (%)	Disagree (%)	Neither Nor Disagree (%)	Agree (%)	Strongly Agree (%)	Mean	SD
1	The main constraint of learning online for me is the internet quota (prices).		4.9	20.8	19.5	47.5	3.95	1.24
2	The main constraint of studying online for me is the Internet signal/connection.		4.4	23.8	22.8	43.3	3.93	1.67
3	The main constraint of learning online for me is the difficulty of interacting with lecturers.		6	36.7	28.5	22.5	3.55	1.1
4	The main constraint of learning online for me is the difficulty of interacting with classmates.		8.2	31.1	26.7	26	3.54	1.19
5	I didn't experience any significant obstacles in online learning.		23.7	42.5	8.7	5.2	2.56	1.06
6	The main constraint of learning online for me is the lack of digital/technology literacy or the difficulty to adapt with new technology.	25.7	24.7	34.7	9.2	5.6	2.44	1.13

Table 3. Students' dissatisfaction with online learning

No	Statements	Strongly Disagree (%)	Disagree (%)	Neither Agree Nor Disagree (%)	Agree (%)	Strongly Agree (%)	Mean	SD
1	What I don't like about online lectures is that there is no face-to-face interaction among students.	4.0	4.6	24.2	28.7	38.5	3.93	1.08
2	What I don't like about online lectures is that there is no face-to-face interaction between students and lecturers.	3.6	3.5	28.5	27.4	36.9	3.91	1.06
3	The instructions given by the lecturers online are not as clear as when they are face-to-face.	3.0	4.6	30.9	28.1	33.4	3.84	1.04
4	What I don't like about learning online is the piling up of tasks.	4.0	3.8	32.4	25.6	34.2	3.82	1.07
5	I often experience technical problems when lecturers explain through online meeting applications such as google meet, zoom, video conferencing, or similar online meeting applications.	3.1	7.0	35.5	29.9	24.4	3.66	1.02
6	I think the tasks given during online learning are more stacked and burdensome than during face-to-face learning.	3.8	5.1	41.6	24.3	25.2	3.62	1.03
7	Many lecturers only give assignments without explaining through virtual meeting applications, voice recordings (Voice Notes), or video recordings.	6.4	11.8	44.9	24.2	12.7	3.25	1.03
8	Many lecturers still explain only through chats in messaging applications such as WhatsApp.	6.6	13.3	52.7	17.9	9.5	3.10	0.97

Table 4. Students' expectations during online learning

No	Statements	Strongly Disagree (%)	Disagree (%)	Neither Agree nor Disagree (%)	Agree (%)	Strongly Agree (%)	Mean	SD
1	I think face-to-face learning is more effective than online learning.	3.1	1.4	24.8	26.5	44.1	4.07	1.01
2	I miss face-to-face learning.	3.5	2.2	22.9	21.7	49.7	4.12	1.06
3	I want to have face-to-face lectures soon.	3.5	3.1	28.0	21.1	44.3	4.00	1.08
4	Online learning will be more effective when combined with face-to-face learning.	6.6	3.6	40.7	26.7	22.4	3.54	1.08
5	I want to have a combination of online learning and face-to-face lectures (hybrid learning)	7.3	7.5	44.0	19.5	21.7	3.41	1.13
6	I still want to have full online lectures.	20.5	14.7	46.2	11.4	7.2	2.7	1.13

5 DISCUSSION

5.1 Constraints students experienced during online learning

The questionnaire results confirm that the students encountered significant challenges during the period of online learning, with a particular focus on issues related

to signal availability and Internet connectivity. These challenges were widespread for a large portion of the student population, marked by limited accessibility and significant financial implications in terms of data usage. Throughout the pandemic, these constraints have emerged as significant concerns for educational institutions across Indonesia, ranging from primary schools to tertiary universities. [12], [34–36].

Despite the significant challenges students face with Internet access and the costs of data usage, their apparent ability to adopt the technology required for online learning demonstrates a high level of digital literacy and preparedness to meet the demands of this educational approach. This adaptability may have a significant correlation with their future academic achievements. In line with Martin et al.'s findings [37], it is clear that adaptability plays a crucial role as a personal resource, providing significant advantages to students in the context of their online learning experiences, particularly within the framework of the COVID-19 pandemic and its aftermath.

Given the proportion of students who expressed a neutral stance regarding significant challenges encountered in the online learning environment, it is reasonable to infer that the online learning environment may not be the primary obstacle, provided it undergoes thorough and appropriate preparation. This preparatory effort mainly involves addressing signal and connectivity issues, which are particularly important, and providing instructors with digital technology.

5.2 Students' dissatisfaction with online learning

Gupta, Sawhney, Nanda, and Ofori [38] argued that the pandemic has had a profoundly disruptive influence on the educational landscape, which previously relied heavily on in-person instruction and peer collaboration within traditional classroom settings. The noticeable lack of direct interaction, whether with educators or, notably, among peers, emerged as a significant challenge during the period of online learning, not only among Indonesian students [29], [34], [35], [39], but also among students globally [10], [14], and particularly among the hundreds of students included in this study. Evidently, students perceive that peer-to-peer interaction plays a pivotal role in the educational process. The significant percentage of students who expressed agreement, both moderately and strongly, in this study emphasizes the paramount value they place on communal learning experiences and authentic interaction.

In response to the prevalent feedback from participants expressing dissatisfaction with the clarity of online instructions provided by lecturers, which contrasts sharply with the clarity observed in face-to-face interactions, the significance of in-person meetings for teaching and learning activities becomes evident. These meetings facilitate improved communication by conveying non-verbal cues, thereby reducing the likelihood of misinterpreting written communication. Furthermore, a significant number of students also expressed concerns about the amount of homework assigned. This issue can be attributed to educators assuming that the cancellation of numerous school activities during that period would leave students with plenty of free time at home.

In the context of online teaching, technical challenges related to delivering oral lectures have emerged as a global concern faced by educators. This study highlights the ongoing importance of technical challenges, which continue to create significant obstacles during instructors' synchronous virtual presentations to students. To ensure the delivery of high-quality online education, educators must prioritize several key factors. These include ensuring robust internet connectivity in students'

environments and addressing navigation issues to enhance the overall online learning experience. Nevertheless, it is recognized that there may be additional challenges that persist throughout the learning process, including aspects such as time management and student motivation. This is where the integration of blended learning becomes imperative, as it allows for the combination of face-to-face interactions with online learning modalities.

In the present study, students expressed their perception that homework assignments during online learning presented greater challenges compared to in-person classes. This observation aligns with the findings of Gupta et al. [38], who reported an increase in both workload and stress levels during online learning. They attributed this heightened burden to the proliferation of learning activities and assignments [40]. Furthermore, the study revealed that over one-third of the participants indicated that many lecturers continued to assign homework without prior instructional support, either through synchronous virtual meeting applications (such as Zoom or Google Meet) or asynchronous tools like video or voice recordings. This observation highlights a widespread issue: a substantial number of students at the research university encountered difficulties with the effectiveness of online learning facilitated by their instructors. This discovery contradicts the findings of Almusharraf & Khahro [41], whose research revealed a notably high level of satisfaction among the postsecondary students under investigation regarding online learning. This satisfaction was attributed to the use of specific digital tools, namely Google Hangouts, Google Classroom, and the LMS (Moodle).

Notably, many lecturers favored using WhatsApp as the preferred platform for delivering lessons during online learning. This underscores the pressing need for comprehensive planning and development of an improved online learning environment, as well as the imperative requirement for teacher training to enhance the provision of quality blended learning experiences. These findings align with the conclusions drawn by Surani & Hamidah [6], who, through their research on online learning in Indonesia, emphasized the critical need for educators in this context to undergo comprehensive preparations before engaging in online teaching.

5.3 Students' expectations during online learning

A study conducted by Lobos et al. [42] observed that, during the period of online learning, students showed a stronger tendency toward an outcome-oriented approach. They prioritized achieving favorable grades over the pursuit of comprehensive knowledge acquisition. This inclination suggests that students had preconceived notions about the potentially reduced quality of the online learning experience. As a result, the lack of in-person interactions in the online learning environment noticeably sparked a strong desire among students to return to face-to-face classroom instruction.

The highest mean score recorded for this sentiment underscores the extent of students' longing for the traditional, in-person learning environment. This encompasses the desire for immediate feedback from instructors, engagement in discussions with peers, the establishment of personal connections with both educators and fellow students, and opportunities for collaborative learning. As a result, it is not surprising that students have also expressed their eagerness for the resumption of in-person lectures, a transition that has now become a reality.

The primary feeling among students in this study centered on the idea that in-person learning is more effective than online learning. Consequently, they

advocated for a blended approach, where online learning is integrated with traditional in-person instruction, to achieve an optimal learning experience. The mean score exceeding 4 in this context indicates strong support for the inclusion of offline meetings as an integral component of the learning process.

While a minority of students expressed reservations about the prospect of blended learning, in which online and face-to-face instruction coexist, a significant majority anticipated and embraced this hybrid learning model. Some individuals who disagree with the idea of combining these two delivery modes may prefer to continue engaging in fully online learning. These findings indicate that the lowest percentage of participants expressed a desire for full online learning. Interestingly, some students recognized the benefits of exclusive online classes, as evidenced by the positive feedback on how this mode of delivery helps them understand course material [36].

6 CONCLUSIONS

This study highlights the primary limitations of full-scale online learning in Indonesia, which are internet availability and data quotas. These limitations significantly undermine the reliability of online learning, especially in the context of final assessments. While students express a preference for traditional classroom instruction, likely driven by dissatisfaction related to the lack of in-person interactions and perceived workload during online learning, they also expect the adoption of blended learning models. This approach combines online learning with in-person classes, providing a diverse learning experience.

This study emphasizes two fundamental recommendations designed to promote effective learning in the post-pandemic environment. First and foremost, it is crucial for the Indonesian government to prioritize the development of a strong and reliable online learning infrastructure, especially within public universities. This involves ensuring a stable internet connection to effectively utilize students' digital literacy. Furthermore, there is a crucial need to establish comprehensive training programs for educators, providing them with the necessary technological skills essential for the effective implementation of online learning methods.

It is strongly recommended that other researchers use the findings of this study as a foundational basis for conducting further investigations into the evolving landscape of online learning in the post-pandemic era.

An inherent limitation of this study is the lack of personal interviews, which limits the depth of insight attainable regarding the issues raised. Consequently, future research efforts addressing this topic should consider supplementing surveys with qualitative methodologies to achieve a more comprehensive understanding. Moreover, there is an urgent need for research on the experiences of students during the post-pandemic era as they participate in online learning, which will contribute to the growing body of knowledge in this changing educational environment.

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