

Experience of Online Learning during Pandemic among High School Students in Malaysia

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Introduction

The Covid-19 pandemic has had a devastating effect on educational systems throughout the world. The number of cases of Covid-19 started to rise in March 2020, with millions of people affected. Even more frightening is that the cause of the virus and the best way to contain it still need to be discovered. In order to respond to the catastrophic effect of the pandemic and the uncertainties surrounding it, most countries decided to close educational institutions to temporarily reduce the spread of Covid-19. A report by UNESCO, UNICEF, and World Bank revealed that 108 countries lost an average of 50 days of direct instruction to students due to school closures, or about a quarter of the school year. In addition to losing learning opportunities, school closures also affected learning assessments. More than half of the countries in the report had to postpone important exams for four to 12 weeks, and some even canceled exams.

In Malaysia, educational institutions were also identified as hotspots for the transmission of Covid-19. To address the issue, the government followed the recommendations for the complete closure of educational institutions at the primary and secondary levels involving all government and private schools throughout the country under the Movement Control Order (MCO) on 18 March 2020. The intention was to curb the spread of the COVID-19 pandemic because children, especially those aged 12 years and under, are among the most at high risk and easily infected with the virus. In the meantime, the Prime Minister, on 10 April 2020, asked the Ministry of Education and Culture to implement online class initiatives throughout the MCO period until schools are allowed to reopen (Prime Minister Department, 2020). Evaluation of students' progress was also affected, where two high-stakes examinations (the UPSR and The PT3) were canceled, affecting 450,000 and 440,000 students, respectively. A full-scale detailed study on the loss of learning opportunities has yet to be conducted.

Nevertheless, it is essential to conduct smaller-scale studies that can provide some insights into the effect of the pandemic on education so that immediate steps can be taken into consideration, especially during the post-pandemic era. As such, this paper aims to investigate students' using online classes in Malaysia during the Covid-19 lockdown. This research is essential to understanding Malaysian high school students' difficulties and gives the relevant stakeholders information they may use to support students' online learning. In addition, the insights might be helpful for post-pandemic online activities such as online tuition, online remedial, and online enrichment activities.

Method

Sample

A sample of 636 male and 640 female high school students participated in the present study using the purposive sampling framework. The median age was 17 years old. The framework was employed to identify the two groups of high school students. The students were from local public schools in the state of Penang, Kedah, and Perak in the northern part of Malaysia.

Instrument

The instrument employed in the present study was developed through discussion with several members from the University of Sains, Malaysia, National Institute of Educational Planning and Administration (India), University of Dhaka, Kenyatta University (Kenya), Seoul National University (Korea), and Chiang Mai University (Thailand). Variables, the number of items, and a sample of the items are given in the following Table 1.

Table 1:
Instrument

Variable	No of Item/Option	Example of Item
Platform used for Online Class	8	Platform used for online learning during the COVID–19 pandemic period...
Strategy Used to Complete Tasks	6	Which of the following approach did you use to complete tasks during online learning?
Challenges of Online Class	10	What challenges did you face in attending the online classes?
Total	24	

Data Collection Procedure

The process of gathering the data was straightforward. We contacted the teachers to ask for their help gathering the data. The volunteered teachers are then given the link to the Google form to be distributed among their students. We transfer the response into IBM SPSS 25 for analysis after around two weeks.

Data Analysis

Frequency and percentages were the main statistics used in this study because they aimed to identify the students' experiences with online learning from multiple perspectives. The variables were subsequently ranked using percentages. In order to determine how closely the scores for boys and girls are related, we also provide a Spearman correlation coefficient, rho.

Findings and Discussions

Students were asked about the platform used for online learning. As seen in Table 1, the most common platform reported by female and male students was Google Meet (93.6% and 95.0%, respectively). WhatsApp and Telegram were also widely used, followed by YouTube, Google Classroom, and Zoom. The result was not unexpected because WhatsApp has been used to facilitate learning worldwide (Mulyono et al., 2021). Stone and Logan (2018) added that one of the prime reasons was that WhatsApp helps students connect during online learning and therefore provides a basis for developing a learning community. A recent study by Yoke (2023) reported that one of the main reasons they use WhatsApp is because it is really easy to use and preferred by teachers and friends.

Similarly, Telegram was also preferred for online learning in Malaysia. According to Zanaton and Sumaiyah (2017), Telegram is preferred as one of the platforms for learning because of its ability to provide different techniques for processing teaching and learning and the flexibility to manage students' feedback. Sri Raman et al. (2021) added that with Telegram, teachers could utilize their limited teaching time during the pandemic effectively. Meanwhile, Youtube is still popular for online classes for several reasons. For example, compared to WhatsApp or Telegram, Youtube has been widely used for teaching and learning long before the pandemic. For example, Kalthom

et al. has already discussed the benefits Youtube brought in 2012 – indicating that the teaching and learning activities using Youtube have already been implemented.

Despite having valuable features for learning, such as discussion and photo features, Facebook was the least used, with less than 10% of the students utilizing the platform, most probably because the teachers needed to utilize it. We found that it is rather unfortunate since Facebook is considered one of the best platforms to build an online community – where students can learn from their classmates and the global community. We also report that other platforms, such as Webex and, Padlet, were also reported. Since there is no need to organize a time in advance for the group members to meet in person, Padlet is an excellent tool for collaborative group projects. Students are free to work at their own pace on their group projects. We found that the platform used by male and female students was very similar, based on their high correlation (Spearman's rho = .952, p = .001).

Table 2:
Platform Used for Online Teaching

No	Platform	Male			Female		
		n	%	Rank	n	%	Rank
1	Google Meet	595	93.6	1	608	95.0	1
3	WhatsApp	494	77.7	2	513	80.2	3
4	Telegram	482	75.8	3	551	86.1	2
5	YouTube	292	45.9	4	380	59.4	4
2	Google Classroom	313	42.9	5	300	46.9	5
8	Others (Webex, pallet, etc.)	222	34.9	6	170	26.6	7
6	Zoom	196	30.8	7	233	36.4	6
7	Facebook	26	4.1	8	45	7.0	8

Students were asked about the strategy they used for completing tasks their teachers gave. We reported a similar strategy used by both male and female students. They rank “*Searched answers on the internet*” as the most frequent strategy. This was not unexpected since many teachers were using the online session to post questions using apps such as Quizzes and Kahoot to engage with students. Nevertheless, it is pretty interesting to see that the students rank “*Discussed with other students*” as the second most frequent strategy used by the students to complete the task. This is because technology such as online learning allows teachers to personalize their teaching, considering each student's learning needs, interests, abilities, and aspirations. One example was that teachers might post tasks that must be completed individually after the students have gone through the learning process.

Another interesting observation was that “*Asking teachers to clarify doubts*” was ranked fourth. One might speculate that the finding indicated a need to improve active learning during online teaching, both for teachers and students. It should be noted that posing questions online might be different. For example, teachers need to pause for a few seconds to let the students think. Also, teachers need to call a student's name rather than having them raise their hand. Finally, the students ranked “*Left it for later*” as the least used strategy to complete tasks. This is a positive finding since most students try to complete their tasks simultaneously. It is well too familiar that being left to complete the tasks later may involve the issue of time management and motivation – the students may not be able to complete the tasks at all.

Table 3:
Strategy Used to Complete Tasks

No	Platform	Male		Female			
		n	%	n	%	n	%
1	Searched for answers on the internet	495	77.8	1	540	84.4	1
2	Discussed with other students	445	70.0	2	489	76.4	2
3	Re-watch recorded content	351	55.2	3	400	62.5	3
4	Asking teachers to clarify doubts	333	52.4	4	372	58.1	4
5	Left it for later	87	13.7	6	79	12.3	6

Next, we also ask the students about challenges related to online learning. It is also quite interesting to find out that eyestrain was considered one of the crucial challenges faced by the students, with the girls reporting a higher percentage of 61.9% compared with the boys (57.9%). Eyestrain, also called computer vision syndrome, involves a group of eye- and vision-related problems that result from prolonged computer, tablet, e-reader, and cell phone use. In this study, risk eyestrain among students can be related to Malaysian students having to interact online for at least two hours during the pandemic. Eyestrain is regarded as a growing public health problem, as correctly noted by Bhattacharya et al. (2020). Furthermore, unlike adults, children might not speak out immediately; instead, they might take it with them for the rest of their lives.

As expected, poor internet connection was also considered an important challenge for online learning. The finding was consistent with various studies in Malaysia, such as Shahariah and Nadjah (2021), Jafar et al. (2022), and Khairunisa et al. (2022). Meanwhile, a higher percentage of girls (69.2%) rank "*Excessive homework and assignments*" as a fundamental challenge compares to the boys (50.9%). One interesting observation was that teacher factors demonstrated mixed results. For example, while "*Teachers not helpful*" and "*Poor content delivery by teachers*" were two of the least challenges, the same cannot be said for "*Lack of communication with teachers*," which was ranked as the 4th most crucial challenge among the male, and the 6th according to the females. Salarvand et al. (2023) provide some comprehensive explanations regarding these challenges. They found that the sense of social presence and classroom management among teachers has been impacted by online learning. For instance, if students do not comment, teachers can continue with the content delivery. Moreover, students' presence or their participation in activities may need to be discovered by the teachers.

Table 3:
Challenges

No	Platform	Male		Female			
		n	%	n	%	n	%
1	Poor internet connection	409	64.3	1	421	65.8	2
2	Eyestrain	368	57.9	2	443	69.2	1
3	Excessive homework and assignments	324	50.9	3	396	61.9	3
4	Lack of communication with teachers	265	41.7	4	262	40.9	6
5	Too much to do, cannot cope	222	34.9	5	303	47.3	4
6	Stressful	214	33.6	6	294	45.9	5
7	Others	156	24.5	7	166	25.9	8
8	Self-management	130	20.4	8	177	27.7	7
9	Poor content delivery by teachers	129	20.3	9	148	23.1	9
10	Teachers not helpful	31	4.9	10	41	6.4	10

Conclusion

This study reveals some important things that students experience in online learning during the Covid-19 pandemic. First, teachers and students have been forced to use various platforms for online classes, with Google Meet being the most widely used platform. If not because of the online class, it is likely that teachers and students less use these platforms. Secondly, when it comes to strategies employed during online classes, both male and female students provide similar endorsements, with "Search answers on the internet" as the most crucial strategy. Thirdly, as expected, poor internet connection was the most important challenge for the students. Nevertheless, we found that the eyestrain problem during online classes was an important matter that needed more investigation.

References

- Bhattacharya, S.; Saleem, S. M., & Singh, A. (2020). *Indian Journal of Ophthalmology*, 68(8), 1709–1710.
- Jafar, A., Dollah, R., Sakke, N., Mapa, M. T., Hua, A. K., Eboy. O. V., Joko, E. P., Hassan, D. and Hung, C. V. (2022). Assessing the challenges of e-learning in Malaysia during the pandemic of Covid-19 using the geospatial approach. *Scientific Report*, 12(1), 17316.
- Kalthom, H., Norida, A., Norasiken, B., Ahmad Jawahir, T., & Aida Nasirah, A. (2012). Benefits of Youtube video usage in students' learning. *Journal of Human Capital Development*, 5(2), 1-7.
- Khairunisa, N., Hazlin, H., Sharifah Norhuda, S. W., & Azwan, S. A. (2022). Open and online distance learning (ODL) challenges during COVID-19: A factor analysis among UiTM students. *Journal of Social Science and Humanities*, 5(4), 34-40.
- Mulyono, H., Suryoputro, G., & Jamil, S. R. (2021). The application of WhatsApp to support online learning during the COVID-19 pandemic in Indonesia. *Heliyon*, 7(8), e07853.
- Prime Minister Department (2020). *Perutusan Khas YAB Perdana Menteri* (Special Message by the Prime Minister) – 10 April 2020. <https://www.pmo.gov.my>
- Shahariah, H., & Nadjah, A. A. (2021). Covid 19 pandemic: Impact on students' acceptance towards online learning. *International Journal of Business, Economics, and Law*, 24(5), 50-55.
- Sri Raman, N., Rafiza, A. R., Siti Soraya, A. R., Aizal Yusrina, I. & Cenysia, J. (2021). Implementation of Telegram in teaching during a pandemic. *Turkish Online Journal of Qualitative Inquiry*, 12(8), 7785-7801.
- Stone, S., & Logan, A. (2018). Exploring students' use of the social networking site WhatsApp to foster connectedness in the online learning experience. *Irish Journal of Technology Enhanced Learning*, 3(1), 44–57.
- Yoke, S. K. (2023). The use of WhatsApp for online learning among Malaysian students. *International Journal of Academic Research in Progressive Education and Development*, 12(1), 798–807.
- Zanaton, H. I. & Sumaiyah, M. S. (2017). Mobile learning: Innovation in teaching and learning using Telegram. *International Journal of Pedagogy and Teacher Education*, 1(1), 19-26.