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INTERNATIONAL CONFERENCE ON CHRISTIAN EDUCATION

Christian Education in Digital Technology Era: Challenges and Opportunities

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Christian Education in Digital Technology Era: Challenges and Opportunities

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Welcome from the Rector of Universitas Pelita Harapan

Shalom and gratitude be to our Lord Jesus Christ! It is because of His love and mercy; we can gather together here in this event.

We are now in the end of the pandemic, where more than two years unprecedently we were forced to move to virtual education and embrace digital technology. Out of the millions of educators in Indonesia, both in primary, secondary, and higher education, quickly must learn and implement online teaching and learning. Every educator is required to adapt to various digital learning media, suddenly digital technology is not only a tool but the environment where we are living and interacting with one another.

Not only do the schools have to provide the system to support virtual learning, but educators also have to be equipped to design instructions that fit with the virtual setting. This need eventually triggers various parties to adapt, move, and innovate. Educators use a variety of media as a virtual meeting bridge with students. Not satisfied with just meeting virtual, educators also make some innovations by using other features and exploring any applications that will help provide creative materials and teaching materials.

However, despite of all the improvements and innovations in delivering teaching and learning in digital technology setting, there are many obstacles and challenges. The question remains, are students learning effectively? Especially for Christian educators, we need to keep asking the question, whether we have faithfully and effectively carried the mission of Christ-centered education, facilitating holistic transformational education in this digital technology era?

Christian education must consciously be aware of the current educational challenges while embracing the opportunities through the rapid development of digital technology. We should continuously ponder how to be faithful to our calling as Christian educators in this era of disruption. We should strive to be an exemplary institution in presenting Christian education during the fast-changed of digital technology. We believe that every technological progress is the fruit of cultural mandate to advance humans' life, fostering life given by God. On the other hand, Christians are also aware with our fallen nature, that there is a possibility of missing the point in any good effort that we are trying to do. Further as human beings, are we going to develop holistically if education is reduced by totally virtual learning? These are some questions that we need to keep thinking and discussing.

UPH, especially Teachers College, is grateful that we can host the first International Conference of Christian Education, especially inviting best panelist speakers to inspire us. We hope that through the ICCE event, there will be a forum for us, educators and practitioners of Christian education, to discuss the opportunity and challenges of doing our mission in the midst of such rapid technological advances. We also hope that this event will encourage us that amid various challenges that exist, God is faithful in sustaining us thus giving us hope to embrace the opportunities that are wide open to further our service to provide a quality, holistic, and transformational education.

Finally, enjoy the conference, Lord Jesus bless you.

Dr. (Hon.) Jonathan L. Parapak, M.Eng.Sc.

Welcome from the Dean of Faculty of Education, UPH

Today what is happening in the classroom is different from practices before the pandemic. Changes will continue to occur, especially with the advancement of digital technology, which will become increasingly sophisticated. The interaction of education with technology is inevitable. As Christian educators, we embrace digital technology development. We believe students as the Image of God, and the purpose of educating them is to see them flourish with creativity and innovation for the development of human civilization. However, every technological development that brings about good changes may unwittingly change something essential. For example, now we cannot escape from digital technology. It is ubiquitous; from communication, working, shopping, and many more, all are on the digital platform. It has changed the way we interact with one another. To what extent has it changed us? How can Christian education embrace but also be aware of these?

That is the background of the International Conference on Christian Education with the theme, Christian Education in Digital Technology Era: Challenges and Opportunities. Christian educators must continue discussing this topic to carry out our mission faithfully. Continuously we need to learn and relearn to prepare our students well and be ready to embrace their future as disciples of Christ.

UPH Teachers College is very grateful for the cooperation with various parties, ACSI Indonesia and Australia, and Bandung Theological College, which made this first international conference possible. Likewise, we are blessed with the plenary speakers who are experts in their fields and will share their research and insights. We hope that all the presenters and participants will benefit most from this event. The committee has worked very hard to prepare for this event and we hope that by the end of the conference, the conversation will not stop. Let us continue strengthening Christian education in Indonesia through this forum, and we will meet again at the following conferences.

In the end, as our God has led all the preparation for this conference to take place, let His wisdom guide our conversation! All praise and glory be to God alone!
God bless.

Oh Yen Nie, S.E., M.Ed.

Welcome from the Head of Bandung Theological Seminary

The ever-evolving world is a part of the Cultural Mandate or the Creation Mandate, which is revealed in Genesis 1:28. Therefore, we should respond to the development of digital technology critically and positively for Christian education in various contexts.

We are grateful for the first International Conference on Christian Education (ICCE) today, June 4, 2022, as the result of the collaboration between the Faculty of Education UPH, ACSI Indonesia, ACSI Australia, Indonesian Christian Education Council, and Bandung Theological Seminary (STTB), to study the opportunities and the challenges of Christian education in digital era, by involving the experts from within and outside the country as the speakers.

Thank you, especially for the willingness of Mr. David Smith (from Calvin University, US), Mr. Darren Iselin (from ACSI Australia), and Mr. Agus Susanto (from ACSI Indonesia), as the speakers, and for all the committee from the Faculty of Education UPH who has been working hard to prepare this conference.

Hopefully, all the opportunities and the challenges in Christian education in the digital era that are studied through this conference will equip fellow educators with more comprehensive and sharper insights from the biblical point of view, so that the purpose of Christian education which is to produce Christian leaders who have a good spirituality, high competence, and strong dedication, can be more realized though this conference.

Welcome to this conference. God bless you!

Sutrisna Harjanto, Ph.D.

Welcome from the ACSI Indonesia National Director

Dear ICCE presenters and participants.

The development of digital technology is rapidly changing the order of human life–which is also developing so swiftly as well. There are those who agree and follow the speed of development, accept it for granted, and even get involved in the development. Still, not a few are also indifferent to it, disagree and refuse to use digital technology for all kinds of reasons that are indeed or are made in accordance with their choice of decision. In addition, there are those who try to be neutral ("wise"), by looking at digital technology such as a double-edged sword or fire which can be used either for good or evil purposes. e We have already seen practical examples of these two possible uses of digital technology everywhere.

What about us as Christians? Specifically Christian educators? The term of Christian educator, this can be viewed narrowly or broadly. In a narrow sense, some categorize Christian educators as those who work as teachers or lecturers. But we can also see it from a broad sense, that Christian educators are anyone who has the responsibility to educate, direct, and give vision to other people or the surrounding community. And this means that all Christians are actually educators, because Christians are followers of Christ, and Christ has assigned a role to us, Christians, as salt and light of the world. This means that we as Christians must be a flavor for the world and be a statement of God's truth to the world as well.

I represent Christian schools and Christian educators who are members of the ACSI Indonesia organization. I herewith also welcome all the speakers and participants of 2022 International Conference on Christian Education. This conference is organized by Universitas Pelita Harapan in collaboration with several Christian education organizations including ACSI. I hope that this conference can continue in the future and there will be more Christian educational organizations including churches, and synods, to be able to collaborate, like what is stated by ACSI's motto: Stronger Together, for us to be strong together, as one body of Christ. Let's salt the world more and bring light to the world. I hope that through this ICCE more and more people who work as Christian educators will grow and more Christians in general will be more aware of their calling and will realize that we are all educators, tasters, and proclaimers of God's truth, who need to be equipped and strengthened at all times. Especially through the theme of the 2022 ICCE: "Challenges and Opportunities for Christian Education in Digital Technology Era."

Finally, congratulations to UPH for initiating the first ICCE in 2022. Let us be those who wait on the Lord so that we may gain new strength, like an eagle that soars with the power of its wings, we run and do not become listless, we walk and do not grow weary (Isaiah 40:31).

Thank you, God bless us all.

Agus Susanto, Ph.D.

Welcome from the Chairman of the 1st ICCE UPH 2022 Committee

Shalom Aleichem, gratitude be to our Lord Jesus Christ, because of His love and favor, we can gather in this conference. It is such an honor for me to welcome you to the 1st International Conference on Christian Education (ICCE) UPH 2022, with the main topic, "Christian Education in Digital Technology Era: Challenges and Opportunities."

The rapid development of science and technology in today's digital technology era encourages the emergence of various educational innovations based on learning technology, making it easier for educators and students to access multiple educational contents. This is marked by the ease of obtaining access to information and internet connection speeds. The Covid-19 pandemic has increasingly encouraged the emergence of various forms of digital learning media globally. This unavoidable pandemic requires school administrators', education providers, educators, and students to be able to adapt to changes in learning patterns from face-to-face learning to online learning. An education system that combines digital technology with the learning process will open opportunities and challenges as real implications of the transformation and paradigm shift of education in the digital technology era, including Christian education in it. Therefore, the 1st ICCE UPH 2022 aims to 1) Explain the implementation of digital technology in learning and its implications for students' faith formation; 2) Discuss digital technology development in learning and its implications and influence on the way we communicate and relate to others in Christian educational context an excellent, holistic, and transformational; 3) Enrich understanding to Christian educators regarding the calling response to teach in digital technology era by looking at the opportunities and challenges.

For organizing the 1st ICCE UPH 2022, allow me, as the chairman of the organizing committee, to express my deep gratitude and appreciation to the Keynoted Speakers, Mr. David I. Smith, Ph.D. (Professor from Calvin University, USA), Mr. Darren Iselin, Ph.D. (Director of Research and Innovation Christians School Australia), and Mr. Agus Susanto, Ph.D. (ACSI Indonesia Director) for each conference material presented. We also express our gratitude and most profound appreciation to the Advisory Boards and the organizing partner, Mr. Dr. (Hon). Jonathan L. Parapak, M.Eng.Sc. (UPH Rector), Mr. Sutrisna Harjanto, S.Si., M.Div., Ph.D. (Chairman of Bandung Theological Seminary), Mr. Agus Susanto, Ph.D. (Director of ACSI Indonesia), Mrs. Sandra Scott (Executive Officer of International Partnerships and Service Christian Schools Australia) and Mr. Marks Spencer (Director of Public Policy Christian Schools Australia). Likewise, we would like to express our gratitude and most profound appreciation to the Supervisory Board, Mrs. Oh Yen Nie, S.E., M.Ed. (Dean of the Faculty of Education, UPH) and Mrs. Sarinah Lo, Ph.D. (Senior lecturer of Bandung Theological Seminary) and to the Steering Committee Mr. Dr. Budi Wibawanta, S.Sos., M.Si. (Vice Dean of the Faculty of Education, UPH) and Prof. Dr. Niko Sudibjo, S.Psi., M.A. (Department Chair of Educational Technology, Faculty of Education, UPH). Expressions of gratitude and highest appreciation are

conveyed to the entire organizing committee team, who have worked tirelessly to prepare for this conference so that it can be organized successfully. We also express our gratitude and appreciation to the presenters who have shared articles and published works in the form of proceedings and the participants who have involved in this conference.

Finally, we hope through the organizing of the 1st ICCE UPH 2022, as educators and leaders of Christian educational institutions, we can collaborate to do concrete works in the area where God has entrusted us in responding to the opportunities and challenges in the digital technology. We will appreciate constructive suggestions and criticisms to improve the quality of future conferences. To God be the Glory.

For we are his workmanship, created in Christ Jesus for good works, which God prepared beforehand, that we should walk in them. - Ephesians 2:10 (ESV)

Imanuel Adhitya Wulanata Chrismastianto, S.E., M.Pd.

The Development of Hybrid Learning Scenario in Satya Wacana Christian University: Opportunities and Challenges

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Abstract

The pandemic has had a significant impact on education. Specifically, in the learning process, many online learning schemes have emerged. This study aims to develop a new hybrid learning scheme in the learning process for Satya Wacana Christian University. The methodology for this study is development research that consists of 3 main stages, namely collecting research and information, planning, and developing a preliminary form of the product. Data analysis uses a feasibility test to test the feasibility of the product and SWOT analysis to examine the development qualitatively. The results show that the hybrid learning scheme is feasible to use. It can be seen from the average feasibility test showed 4 points which means good. Based on the SWOT analysis results, it can be concluded that hybrid learning has the opportunity as a new scheme that can be implemented in educational institutions. The advantages offered by the hybrid learning scheme are: it represents users' emotions, provides meeting facilities both online and offline and can be collaborated with other learning schemes such as blended learning. In terms of challenges, the safety conditions during the pandemic need to be a concern, also the network strength and users' devices.

Keywords: Hybrid Learning, Online Learning, Learning Development.

1. Introduction

The pandemic has had an impact on various aspects of human beings, including education. Various adaptations and adjustments need to be made to accommodate various learning scenarios in educational activities. Including the implementation of the learning process based on the Policy of the Minister of Education and Culture of the Republic of Indonesia in Circular Letter Number 4 of 2020 concerning the Implementation of Educational Policies in the Emergency Period for the Spread of Coronavirus Disease (COVID-19) regarding the implementation of Online Teaching and Learning Activities. This was followed by a Circular Letter from the Education and Culture Office of Central Java Province through SE Head of Service Number 443.2/08991 on March 15, 2020, which issued a policy that the learning process was transferred independently in their respective homes with an undetermined limit time.

This policy certainly has a very significant impact on the process of implementing learning activities. Many educational institutions must be able to make various educational innovations so that learning runs well. Starting from the materials, media, methods, systems, and educational evaluation processes. All components in the implementation of education for educators, students, and decision-makers must be able to collaborate to be

able to develop a learning process that suits their needs.

Many learning scenarios are carried out by online learning, blended learning, limited face-to-face, or using a new concept that is currently emerging, namely hybrid learning. In the current pandemic conditions, efficiency in the delivery of learning is a major need for both educational institutions and students. Hybrid learning can improve time efficiency for both education providers and the learning itself, while also providing more learning experiences than conventional learning (Smith, 2021).

Based on observations at the Satya Wacana Christian University, especially in the Faculty of Teacher Training and Education as one of the faculties that prepare future teacher candidates, it is known that the learning process with a blended learning scheme through Flexible Learning (Flearn) as one of the e-Learning platforms at the university has several weaknesses like limited interaction, unable to maximize students' potential in practical activities, tend to be neglected, and have the potential for saturation. Many factors cause this to happen such as limited interaction by both lecturers and students, reduced focus of student learning due to being bothered with other activities, and the erosion of culture and ethics in the learning process. In addition to this, it can also be seen that the blended learning scheme requires students to have good learning devices.

Analysis of the problems above requires a learning scheme that can overcome the existing problems. Hybrid learning is considered a solution to existing problems. Hybrid learning schemes can support adaptation in an e-Learning environment that can be followed in real-time through a management system based on the learner's learning style (Al-Omari, Carter, & Chiclana, 2016). This is also supported by Aristika & Juandi (2021) that hybrid learning is effective in improving teacher-student relationships in terms of student learning motivation.

Based on the problems and analysis conducted, the researcher developed a new learning concept that was adapted to the conditions, facilities, and culture at the university which was adapted to the hybrid learning type.

2. Literature Review

Many learning situations are carried out via online learning, blended learning, limited face-to-face, or a new idea called Hybrid Learning, which is currently gaining traction. Efficiency in the delivery of learning is a crucial demand for both educational institutions and students in the present pandemic situation. Hybrid learning has the potential to save time for both educators and students while also delivering more learning opportunities than traditional learning (Smith, 2021).

Analysis of the aforementioned issues necessitates the development of a learning strategy capable of resolving the issues. Hybrid learning is seen as a solution to current issues. Hybrid learning schemes can aid adaptability in an e-Learning environment, which can be tracked in real-time by a management system based on the learner's preferred learning style (Al-Omari, Carter, & Chiclana, 2016).

Furthermore, this is also supported by Aristika & Juandi (2021) that hybrid learning is effective in improving teacher-student relationships in terms of student learning

motivation. They found that the immersion of real-time interaction between online and offline learning in a classroom is a new experience for the students. However, the creativity of the teacher is also required to make the hybrid learning immersive for the students. Student-centered learning is recommended to enhance the immersion.

According to the experts, hybrid learning models must be able to link academic participation (Nissinen, Vartiainen, Vanninen, & Pöllänen, 2019). In more detail, Trede, et al. (2017) describe the characteristics of hybrid learning are time and place where various sources of knowledge, culture, and ability to collaborate, and a space where the different values, goals, and practices of academia and the world of work meet. This hybrid space combines various learning elements such as theoretical, technical, economic, cultural, practical, and personality with the immersion of both physical and virtual environment that bridges human interaction with material objects and technology.

The research established a new learning idea based on the difficulties and analyses undertaken, which was suited to the university's conditions, facilities, and culture, and was adapted to the hybrid learning type.

3. Research Method

The methodology used in this research is development research. Borg and Gall (2003:771) explain that development research is a process used to develop and validate educational products that include not only material objects, textbooks, and instructional films, but also procedures and processes, such as teaching methods or methods of organizing instruction. The steps in the research and development process used are based on Bord and Gall but stop at the 3rd stage of the 10 stages. It includes Research and Information Collecting, Planning, and Developing a preliminary form of a product. The data collection instrument used was non-test. The data collection technique is by using literacy studies, questionnaires, observations, and interviews. For a more in-depth study, a SWOT analysis was used to obtain an assessment of the Challenges and Opportunities of the developed scheme.

Planning includes the selection of development sites and targets, the preparation of a development agenda, and the determination of experts in product validity. The location and target of the research are focused on the Faculty of Teacher Training and Education, Satya Wacana Christian University. The address is at Jalan Diponegoro No. 52-60, Salatiga, Kec. Sidorejo, Salatiga City, Central Java. The development agenda includes the preparation stage including the submission of research titles and permits. The development needs analysis phase includes user analysis, media analysis, analysis of facilities, and infrastructure. This is followed by the design phase of product manufacture, followed by expert validation. Expert validation involves experts in the fields of education and learning.

The data is analyzed using SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis. First, it was started by analyzing the strengths of hybrid learning. Then, the weaknesses were analyzed based on the contradictory factors of the strength that can be used for the improvement of hybrid learning. Based on the strengths & weaknesses, the opportunities were analyzed to find out the room for improvement for hybrid learning. Finally, the threats were analyzed to find out what would be the possible obstacles to the implementation of hybrid learning.

4. Results and Discussion

According to the experts, hybrid learning models must be able to link academic participation (Nissinen, Vartiainen, Vanninen, & Pöllänen, 2019). In more detail, Trede, et al. (2017) describe the characteristics of hybrid learning:

1. Time and place where various sources of knowledge, culture, and ability to collaborate;
2. A space where the different values, goals, and practices of academia and the world of work meet;
3. A space where the role and identity of learning, whether students, practitioners, and teachers, can collaborate with each other;
4. This hybrid space combines various learning elements such as theoretical, technical, economic, cultural, practical, personality, and political;
5. Physical and virtual settings; and
6. Human interaction with material objects and technology.

User analysis

Users of hybrid learning scenarios are lecturers and students who allow them to interact in the learning process.

Media analysis

The media that is being used is Zoom meeting or Google Meet as an online meeting service provider platform. In addition, it also uses Flexible Learning as a platform used by Satya Wacana Christian University to carry out the learning process and administration.

Facilities and infrastructure analysis

The main equipment used is Polycom, a type of device used to bridge the interaction between offline and online classes that can be synchronized through the Zoom meeting application or Google Meet via a laptop or computer device. This Polycom can also record sound around the room or display sound in the Zoom meeting application or Google Meet. Other facilities and infrastructures used include Laptops and Monitors.

Develop preliminary form of product
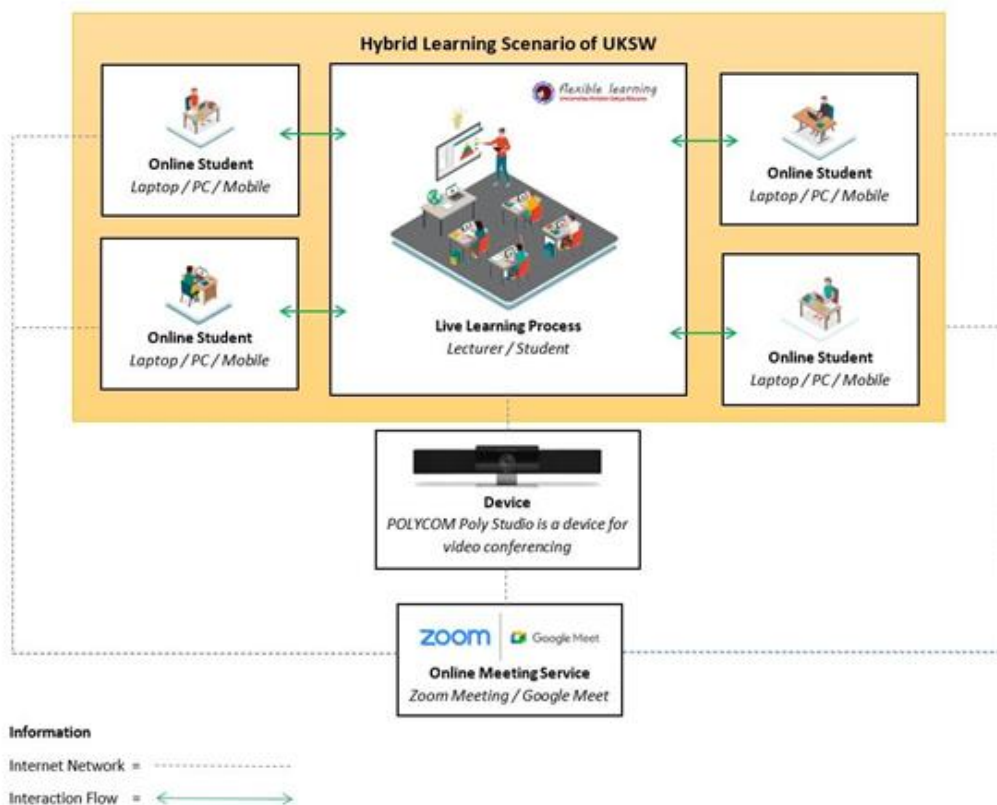
Figure 1. Hybrid learning scenario developed

Description

1. Offline Learning Process

The learning process is carried out in a special room that has been set up with various facilities and infrastructure provided. The various components that exist are lecturers and students who do offline learning but are equipped with laptops/smartphones to carry out technology-based learning. In offline classes, learning interactions occur like the learning process in general, starting from explaining, discussing, asking questions, assignments, or other learning activities.

Figure 2. Picture of offline classroom atmosphere

2. Using Flexible Learning Devices, Polycom, and Online Meeting Service

To be able to interact with class participants in real-time, media, and device settings begin with learning planning in flexible learning starting from meeting links, study materials, and assignments, to learning agendas. Then the lecturer's computer/laptop is set up with Polycom where there is a USB cable that is connected to the HDMI port on the laptop and another cable is plugged into the HDMI port on the monitor. Polycam will be able to capture the atmosphere in the offline class while the monitor will display presentations and online meeting service on the lecturer's laptop.

Figure 3. Picture of setting equipment

3. Online Learning Process

Online learning is specifically for students who cannot take offline learning due to certain reasons (illness/permission/pandemic conditions). This online learning process is presented in the online meeting service (Zoom meeting/Google Meet) features. The advantages are that students can interact directly and be responded to directly by offline participants. As for the several stages that are carried out, such as in online classes in general, accessing links in Flexible Learning, then joining through their respective devices.
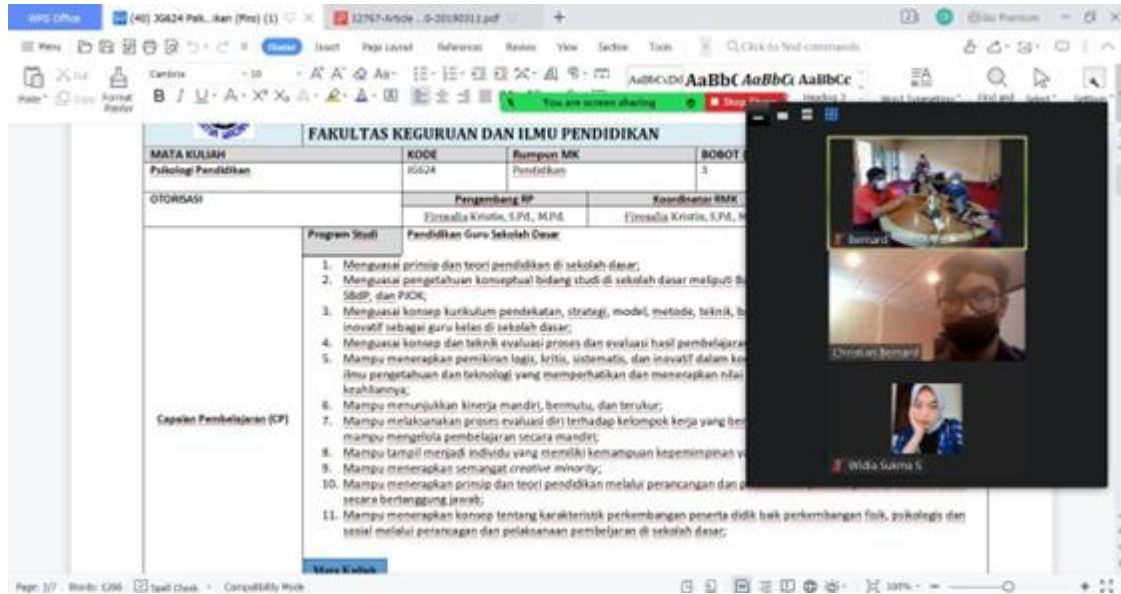
Figure 4. Picture of an online class atmosphere

4. Synchronization in Hybrid Learning

Hybrid learning is a combination of offline and online learning, where both can interact with each other at the same time.

Figure 5. Picture of the hybrid class atmosphere

Discussion

Feasibility Test

Media Experts

Based on the results of the questionnaire submitted to the experts, the results of the assessment from the media's point of view are as follows.

Table 1. Media expert assessment

Aspects of Assessment	Point	Description
Ease of access	5	Very good
Available features	4	Good
Security access	4	Good
Technology flexibility	4	Good
Total	4.25	Eligible

According to the media experts, the score was 4.25 which means eligible. In other words, hybrid learning was effective to implement in the classroom. The maximum score on the ease of access showed that the method was accessible for all lecturers and students. Followed by four points on available features, security access, and technology flexibility. It means there are a lot of features that can be used in the classroom during the learning process.

Learning Experts

Based on the results of the questionnaire submitted to the experts as for the results of the assessment from the point of view of the learning process as follows:

Table 2. Assessment of learning experts

Aspects of Assessment	Point	Description
Material/Learning Content	4	Good
Delivery of Material	5	Very Good
Interaction	5	Very Good
Learning Evaluation	4	Good
Total	4.5	Eligible

According to the learning experts, it can be seen that the developed scenario is also eligible to use. The maximum score on material delivery and interaction showed that hybrid learning was very similar to an offline classroom. It was able to break through the restriction of online interaction in online learning. Followed by learning material and evaluation on 4 points which was high. It means the learning materials and evaluation that were being brought into the classroom might be similar to offline learning.

Table 3. SWOT Analysis

Helps	Barrier		From
From Within	Strengths:		Weaknesses:
	- able to serve more students with the same resources (time and instructional materials), - provide a built-in		- requires personal management related to the learning path: decision-making (which way to participate) and when online is chosen, requires substantial time management skills and

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	alternative when classroom instruction isn't possible due to scheduling conflicts, and - increase overall course enrollment by offering additional schedule and location flexibility to students.		- personal and technical resources are required to participate in the online version of the course: (most commonly) hardware, network, ability to engage in online learning platforms, and the ability to learn through mediated experiences.
From Outside	Opportunities: - increased access to courses, - schedule control, and - more learning resources.	Threats:	- support additional faculty development and workload; formally or informally. This may require additional financial resources and - difficult in administering the participation of students in varied formats: tracking attendance and participation, practice and assessment activities, and providing interaction and feedback.

(Beatty, 2019: 25)

5. Conclusion

The pandemic has had an impact on various fields of human life, especially education. Different kinds of adaptations and adjustments need to be made to accommodate online learning. During the pandemic, the efficiency of delivering the learning material is a major need for both educational institutions and students. Hybrid learning can improve time efficiency for both educational institutions and the learning itself. Besides that, it also provides richer learning experiences than conventional learning.

The results show that the hybrid learning scheme is feasible to use. It can be seen from the average feasibility test carried out. The result is 4 points which means good. Based on the results of the SWOT analysis, it can be concluded that hybrid learning has the opportunity as a new scheme that can be implemented by educational institutions. The advantages offered by the hybrid learning scheme are representing user emotions, providing meeting facilities both online and offline, and can be collaborated with other learning schemes such as blended learning. In terms of challenges, it is known that security conditions during the pandemic need to be a concern, in addition to network strength and user devices looking for separate records.

Hybrid learning scenarios can be an alternative learning scenario during the pandemic era. Hybrid learning promotes both face-to-face and virtual meeting in real-time, which means teachers can interact with their students directly in the classroom and online meeting services at the same time. Hopefully, the future research on hybrid learning scenarios can be done on a larger scale outside SWCU. Therefore, hybrid learning scenarios can be used in different levels of education.

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