Flexi-College Education to Anticipate Society 5.0 Accelerated by Covid-19 Pandemic Outbreak

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Abstract

The current study was aimed at describing Flexi-College Education (FCE) recently launched by the Ministry of Education, the Republic of Indonesia as a revolutionary approach to anticipating a Society 5.0 while there is a blessing in disguise with Covid-19 Pandemic outbreak as a trigger. FCE has been in operation over the past two years under the term 'Merdeka Belajar Kampus Merdeka' (MBKM) literally referred to as Flexible Learning Flexible Campus. An online survey was conducted as the basis of evaluation of the implementation of FCE in order for the educational authority to formulate a policy for the next college education system. A total sample of 10.505 students was chosen from Universitas Islam Sultan Agung Semarang (UNISSULA) despite only 8.600 responses. Indonesia, to find out their responses to the implementation of FCE. The findings revealed the facts that most students responded positively to the said program. Therefore, to accommodate a better implementation of the program, we proposed a hybrid learning approach—a combination of the positive aspects found in both online and offline learning models. A hybrid class can be joined from both online and offline modes of learning. As an impact, hybrid learning shall be made right at the student intake processes. The study concludes that hybrid learning model is very ideal to be implemented in the post-Covid-19 Pandemic in support of the government's FCE and as a barometer of new civilization. Educational institutions, therefore, shall provide sufficient digital infrastructure for the hybrid classes with the lecturers' improved digital literacy.

Keywords: flexi-college education, hybrid learning, online class, offline class, digital infrastructure, digital literacy.

INTRODUCTION

We do not mean that we have no empathy over millions of casualties caused by the global outbreak of Covid-19 Pandemic (Chandasiri, 2020; Sethi et al., 2020). We do miss those who have sacrificed their lives in severe combats against the pandemic (Newman, 2020; Tanne et al., 2020). However, there have been blessings in disguise in terms of new normality of social dealings as a result of the government's social distancing policies. Research in multiple disciplines has also been triggered to generate quality industrial products in medical profession, health care, information technology and educational advances. We are heading for Society 5.0 in every part of our lives, characterized as intellectual revolution (Konno & Schillaci, 2021; Saharan & Sharma, 2022).

Over the past two years, educational services have been restructured to undergo a drastic shift of paradigm (Ali, 2021; Kansal et al., 2021; Mehla et al., 2021). Teaching and learning activities are to be conducted online with and without disadvantages caused by

various levels of preparedness in terms of digital infrastructure and literacy. Blessed be upon information technology which has positively responded to the dire and pressing need for Learning Management System (LMS) to support the online modes of learning. Human resources, such as teaching practitioners and educational administrators have also been challenged to comply with the requirements of digital literacy. We are happy to see that millennial students as digital natives have been relatively familiar with information technology even though challenges exist as a part of their learning endeavors (Janschitz & Penker, 2022; Milutinović, 2022; Sixto-García et al., 2022).

Research on the implementation of online education has been recently conducted (Jhon et al., 2020). It is argued that teachers are mostly challenged regarding planning and implementation and assessment of online learning (Aladsani, 2022; Kruszewska et al., 2022). Meanwhile, students face technological challenges apart from physical and psychological challenges. This further confirms that online education has been relatively implemented in a variety of ways depending on institutional preparedness. Things, therefore, have to be improved here and there.

Apart from students, there are still seven other FCE programs, namely apprenticeship, voluntarism, entrepreneurship, teaching assistants, research assistants, independent studies, and humanity projects from which colleges are supposed to choose. Some colleges have managed to implement most of the programs. Others selected a few of them as previously mentioned, depending on the preparedness of the educational institution (Astro et al., 2022).

The current study, it should be stressed, is particularly concerned with 'what to do' in support of the government's FCE. The question is therefore "What kind of approach is most suitable to accommodate (Amirudin et al., 2022; Krishnapatria, 2021; Sonia, 2022) the government's FCE programs?"

If we should continue with the online education, we seem to have wasted our investment in building conducive learning environments in such beautiful, gigantic campuses. What are we going to do with those offline facilities? These problems are not easily settled in words without concrete actions. Conversely, if we should return to the past offline education, we have also invested financially much to build digital infrastructure and upgrade digital literacy. Moreover, we have been familiar with online modes of teaching and learning. What a dilemmatic situation we have for the future of education!

The current study is therefore to propose a hybrid learning model as an alternative approach to accommodate the students' responses regarding the implementation of FCE. It is arguably true that hybrid classes can be joined in both online and offline modes of learning (Bøjer & Brøns, 2022; Eyal & Gil, 2022; Nørgård & Hilli, 2022). Thus, the students are given freedom of choices. This is in support of the government's present educational policy of flexible learning termed as Merdeka Belajar Kampus Merdeka (MBKM) (Astro et al., 2022; Purike, 2021) in which freedom of learning is granted to the students—learning in different study programs within one institution and or learning in the same study programs of different institution. Doing apprenticeship in different industrial partners is also made possible. The program is clearly regulated under the Decree of Ministry of Higher Education and Culture No. 3 of 2020 on National Standard of Higher Education with an issuance of a guide book on FCE or MBKM.

Hybrid learning, theoretically, derives from the positive aspects of both online and offline modes of education. It is therefore urgent that hybrid leaning be implemented in the post-Covid-19 Pandemic for all lectures throughout Indonesia or even all over the world. It is argued (Raes et al., 2020) that hybrid learning mode is effective to accommodate the students' preferences. It can create a more flexible, engaging learning environments compared to fully online o(Astro et al., 2022; Purike, 2021)r offline instruction. However, such a promising model of learning is not without challenges which, as reported, are of pedagogy and technology.

Pedagogically speaking, remote students and on-site students undergo different sense of treatments in synchronous hybrid classes in terms of learning engagement (Bülow, 2022). Remote (online) students get cognitive and emotional engagement without behavioral engagement. Meanwhile, On-site (offline) students get all the three models of engagement (Raes, 2022). Technological challenges belong to educational investors who shall provide digital infrastructure and at the same time upgrading the users' digital literacy.

In Indonesian contexts during the global Covid-19 Pandemic, a research (Haryati et al., 2021) reported a different degree of implementation of the online education. Fully, and partially implemented online education dominate school and college settings. Very few educational settings have not managed to implement the online education in the sense that they only use limited social media without employing modern LMS. From this point, it is still possible that hybrid learning be implemented though not at once throughout the country.

Fig.1 below gives an illustration of a simple framework of hybrid learning:
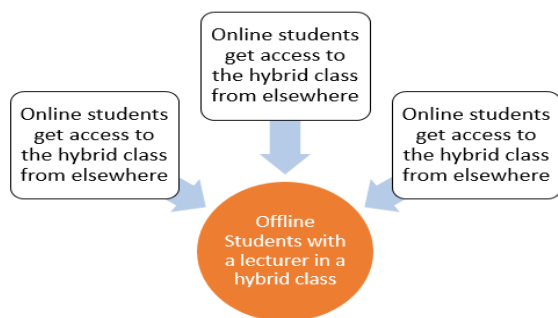

Fig.1 *Simple Hybrid Learning Framework*

Fig.1 illustrates a simple hybrid learning framework in which the class is equipped with LMS which can provide both online and offline access. The lecturer shall design the same materials for both online and offline modes of learning. A multiple interaction is designed in such a way to enable everyone to interact with each other, such as:

(1)   Lecturer   □   Online Students   □ Lecturer

(2)   Lecturer   □ Offline Students □Lecturer

(3)   Online Students   □Offline Students   □ Online Students

With these models of interaction, it is expected that every student (online and offline) has an equal share of access to the materials including those, such as PPT presentation, video and audio recordings. Of course, as previously mentioned, online students will miss the behavioral engagement of the class. This can be compensated by the online students' further practices outside the hybrid class. This point further confirms the promising implementation of hybrid learning for every lecture at college level.

METHOD

The current study employed both field research and literature review to support the proposed model of learning in the post-Covid-19 pandemic. Methodologically speaking it still belongs to a descriptive qualitative research design. The field research investigated the students' responses regarding the implementation of FCE or MBKM). This gave a clear situation on the part of the students, regarding their responses to the current learning atmospheres during the global Covid-19 Pandemic. The proposed model of learning (hybrid) was formulated with reference to several models of hybrid learning which have been implemented elsewhere.

Data Collection and Analysis

The data was taken from all students of the twenty-two study programs under the management of Universitas Islam Sultan Agung (UNISSULA) doing the online learning activities during the global Covid-19 Pandemic in the implementation of MBKM programs. The total number of 10.505 students (total sampling) was obligatorily requested to participate in the survey. However, only 8.600 students responded to the online survey.

A link to Google Survey Form was distributed to all students or total sampling via their emails. Thus, respondents driven sampling was used. The in-coming responses were automatically analyzed to represent the

implementation and evaluation of MBKM Programs in the form of proportion (percentage).

Construction of Hybrid Class

The proposed designed of hybrid class was synthesized from several hybrid classes which have been implemented as also performed in the construction of blended learning. Modifications were also made to fit the Indonesian contexts of learning. With respect to the infrastructure, only technical specifications were described without any mentions of the products. As the study did not specify any study program, no learning materials were described.

RESULT AND DISCUSSION

To provide a systematic discussion, the result(s) of the study is presented in two divisions, namely (1) Preliminary Study and (2) Construction of Hybrid Activity. The two divisions are interrelated and interdependent upon one another.

Preliminary Study

The preliminary study was initiated and financed by the Government under the Scheme of Evaluation and Recommendations of FCE (Evaluasi dan Rekomendasi Program MBKM). The Scheme was not meant for journal publication but only presented by the Institution in a conference attended by Stakeholders and other interested individuals. It was organized by the fast-track unit of UNISSULA MBKM.

It was argued in the background to the Scheme that it is necessary for Higher Education to conduct 'learning transformation' in order to prepare the students (graduates) to become outstanding generations—those who are aware of and ready to face the global challenges without leaving out the basic cultural values (Fadjarajani et al., 2021). Meanwhile, in a multicultural workplace, social and soft kills are urgently required to compete with other job seekers. Such skills are very often referred to as global competence. Thus, students should

acquire a multidimensional capacity in which they have to be able to deal with local, global and intercultural issues or problems—appreciating different perspectives of the world, being able to respectfully interact with others, acting responsibly for the welfare of others.

UNISSULA, along with its MBKM fast track unit, has promptly issued several policies related to the implementation of MBKM programs, such as curricula restructuring and MBKM guidelines. In fact, UNISSULA has implemented MBKM programs since 2020 despite different programs undertaken by each study program (major), depending on the preparedness of infrastructure and digital literacy. It is, therefore, important to evaluate the implementation of MBKM programs from which constructive recommendations for the stakeholders can be formulated for a better implementation in the future.

The survey administered online to the students covered four dimensions, namely (1) knowledge, (2) impacts, (3) interests, and (4) potential problems of which the results are outlined below:

Table 1. Dimensions of knowledge

Dimension of Knowledge

1	To what extent do students know the policy (obligation to join) MBKM Programs?			
	43%	40%	9%	8%
	Know little	Lack of Information	Complete knowledge	Know nothing
2	Have there any guidelines and operational procedures to join MBKM Programs in your study program?			
	51.6%		32.5%	15.8%
	Already		Do not know	Not yet

With respect to the dimension of knowledge—how much the students are aware of the government's MBKM programs, very few students have known the new policy of MBKM programs despite the fact that we have campaigned a lot through our fast-track unit of UNISSULA MBKM. It always needs time to make them realize the importance of the programs for their future careers. It is good, however, that most of them (though not so significant) have known that MBKM programs

have formulated the guidelines and operational procedures to join the programs. The institution, therefore, should socialize more about the programs through the head of each study program. Once the students know that MBKM programs are actually revolutionary in nature, they may be more interested in joining the programs.

Table 2. Dimension of Impacts

Impacts (Additional Competencies)		
1	Will learning activities done outside the campus give additional competencies, such as complex problem solving, analytical skills, professional etiquettes, etc.?		
81.4%	16.7%	2%
Yes	Possible	Do not know
2	According to you, will learning in other study program(s) widen your perspectives and give additional competencies required?		
79.4%	18.6%	2.1%
Yes	Possible	Do not know

It is a good thing that the students responded positively to the MBKM programs in the sense that they know the benefits of participating in the programs. Some of them are still doubtful and very few express no idea. When the programs were first introduced, most students showed favorable interests.

Table 3. Dimension of Interests

Preparation for the Interested Students		
1	Have you prepared yourself as part of MBKM Program(s)?		
56%	41%	3%
Already	Not yet	Not interested
2	How interested are you to join MBKM program(s)?		
67.3%	31.8	0.9
Very interested	Just fine	Not interested

The possible rationale that they are interested in the programs is that they may have realized the importance of global competence to compete in the work markets. It is argued that everyone should acquire global competencies, such as language mastery, communication strategies and self-management. It is further argued that freedom of learning should be granted to interested students. Only those who show flexibility would survive in the digital age. It is time that interdisciplinary knowledge be promoted to gain professional recognition.

Courses have also to be digitized for ease of access. As an example, ESP (English for Specific Purposes) have been researched regarding possible digitization of the materials and their delivery (Purwanto & Nurhamidah, 2021).

The point is that through the eight programs offered by MBKM, it is expected that each college graduate is equipped with a wide horizon of experience prior to selling his or her skills in selected professions, depending on his or her expertise. Regarding the choices of MBKM programs, Fig.1 below has outlined.
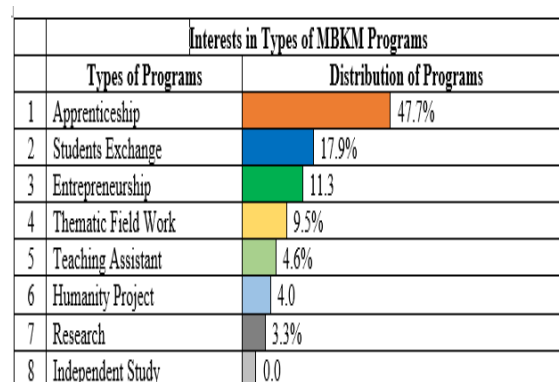
	Interests in Types of MBKM Programs	
	Types of Programs	Distribution of Programs
1	Apprenticeship	47.7%
2	Students Exchange	17.9%
3	Entrepreneurship	11.3
4	Thematic Field Work	9.5%
5	Teaching Assistant	4.6%
6	Humanity Project	4.0
7	Research	3.3%
8	Independent Study	0.0

Fig. 2 *Graph of Interests*

It can be seen from Fig.1 that apprenticeship is very popular among the students. They still believe that work experience is the best teacher; but still, degrees open doors of success. The low percentage or even zero may be caused by reluctance in doing anything that might not support the students' future careers. The FCE/ MBKM programs really serve as a bridge from college to work places. Each concentrate on development of soft skills especially regarding attitudes, work etiquettes necessary to comply with job requirements, however somehow neglected in intellectual development courses. This is further confirmed in their choices of Apprenticeship, students exchange and entrepreneurship which provide them with communication skills.

Of the eight FCE programs, hybrid activities can be mostly implemented in students exchange program while the rests may also implement such activities—either fully or partially. However, by nature, it is impossible

to implement hybrid model in humanity projects which required physical involvements.

Rationales for Hybrid Learning

It can be pedagogically implied that students basically welcome the revolutionary breakthrough in such learning experiences offered by the government's new educational policy of MBKM. It is often argued whether the global Covid-19 pandemic triggered the emergence of MBKM programs or the government has prepared such programs with or without the pandemic. It has been argued above that we shall face a dilemma—whether to continue online education or to return to the past offline model of learning. We have decided to propose hybrid classes to be implemented starting from now or at least after the pandemic (post-pandemic of Covid-19 is completely over. The rationales for hybrid learning can be outlines as follows:

(1)   Hybrid approach is a mixed approach to learning inspired by the positive characteristics of both online and offline learning environments.

(2)   Unlike blended learning in which offline and online models of teaching are conducted consecutively one after the other, such as one week offline and another week online, hybrid classes can be joined either online or offline at the same time—some researchers often use the terms 'blended learning and hybrid learning to interchangeably refer to the same modes of learning. In the USA, the term hybrid learning is more popular (Limniou et al., 2021)

(3)   As digital natives, students have been familiar with information technology that will be used in the actual practice of hybrid learning—though debates are still on-going regarding how the issues are better theorized.

(4)   There are always two sides in a group of students, those who like and dislike particular learning activities. Over the past two years, the students have been forced to learn online—as a response to the global Covid-19 pandemic. They may have caused familiarity among them. However, they may still want to have the offline classes. Research shows a variety of students' characteristics related to their psychological and behavioral reaction toward an emergency remote fully online approach, influencing their intellectual or academic development. Hybrid learning provides both offline and online model of learning to respond to their immediate needs for both models.

Construction of Hybrid Infrastructure

As has already been touched upon, our hybrid class is designed as offline and online students integrated in the same class. It can be done by employing common web meeting software, such as Elluminate or DimDim along with appropriate audio mixing hardware and webcam. In other words, with such a design, intent engagement among offline and online students can be maintained as the video and audio feeds are equally shared. An information technology consultant is required during the installation. Special trainings are also obligatory for lecturers. A complete guidebook for hybrid learning operation is necessary for lecturers, students and administrators to minimize unnecessary technical problems,

In terms of technological requirement, hybrid delivery of teaching materials is available in a relatively low cost without losing its efficiency and effectiveness. For those institutions with sufficient funds may want to make use of specialized audio equipment, consisting such as wireless microphones, conferencing systems and echo-canceling mixers, which can therefore be shared in several classes. However, the following sets of equipment have met the standard of excellence in hybrid learning process.

(1)   A classroom equipped with PCs for each offline student;

(2)   A projection system, preferably one that permits control of the computer from the screen, such as a SMART Board™ or SMART Podium™;

(3)   A wireless lavaliere microphone and mixer tied into the lecturer's computer;

(4)   Wireless   microphone/speaker combinations for each face-to-face student; and

(5)   Web meeting software.

For an initial start, PCs and wireless microphones per student is not a must for a hybrid class. The problem is that it might be difficult (sort of burden) for the lecturer to repeat questions for the benefit of those who either cannot hear the offline students or see the online students' text messages. Actually, to run a hybrid classroom, the minimum setup would be a computer and a cheap and simple Bluetooth headset for the lecturer, free web-meeting software such as DimDim and a projection system for the classroom.

It is arguably true that this initial hybrid construction will suffice for classes designed for interaction between students and lecturers. That is, whether one or several hybrid sections are offered should not present a problem given that the necessary infrastructure can be provided. Large lecture-based face-offline or online classes would benefit more from lecture capture as there is already limited opportunity for interaction. Of course, as already stated before, the presence of a consultant on information technology is obligatory as most of us are still in the domain of users.

This link provides a sample of hybrid classroom construction. It includes demonstration of sufficient operational mechanism. However, any institution that will build infrastructure for hybrid learning is given a freedom of choices, depending on the nature of the hybrid class and the complexity of lectures. Internet browsing for equipment, technical consultants is all that is required for initial setup of a hybrid learning class. Sooner or later, we will have to face the facts that we are heading for Society 5.0 with its intellectual revolution and everything will be digitized and digitalized.

Pedagogical Implication

We really do not know when this global Covid-19 pandemic will finally come to its end until WHO declares so. No countries on earth dare declare the end of Covid-19 pandemic. Even,

the government of Indonesia issues a wait and see policy regarding this pandemic. We realize how difficult it is to decide whether this pandemic has ended or continued to haunt us. We have been fed up by antigen tests on travelling and regular temperature checkup on entry to shops or offices.

Pedagogically speaking, we realize that the show must go on. We have built LMS infrastructure for lecturers to teach from homes to guarantee our educational services accessed from our students' individual android or laptop. Uploading and downloading documents have become inseparable activities on the part of the students. Zoom or Google Meet is used for virtual classes instead of physical interaction as done in offline classes. Therefore hybrid classrooms for each lecture need to be definitely set up to accommodate both offline and online students.

Through hybrid learning system, students can be specified right at the beginning during the process of student recruitment or intake. Those who live near the campus may prefer to choose the offline mode of learning. Meanwhile, those who live out of the city may want to choose the online mode of learning. Both are equally treated in hybrid learning classes with respect to intellectual engagement. Online students may feel a sense of isolation. By time, we will get used to virtual communication toward Society 5,0 where physical encounters are made strictly minimal, big data operated and individually centered activities, accomplished through digital technologies.

Our final remark of hybrid learning is that it will become the most lucrative and sophisticated learning model (Behzad et al., 2022) which may be practiced at international level. This hybrid learning model is designed to provide empowerment of excellence to its students while maintaining the quality standards of a variety of educational elements. Incorporated with both traditional and distance learning methods, along with exploiting social media tools for increased comfort level and peer-to-peer collaboration, hybrid learning ultimately facilitates the end users and educational setup. The structure of such a

hybrid model is realized by the use of a well-trusted learning management system (LMS) in course material delivery.

Last but not of least importance is that the Global Covid-19 Pandemic has marked a new development of human civilization in terms of social conducts. People care for more of their health and wealth to survive in the new era toward Society 5.0 as a new intellectual revolution. It is further argued that people are termed as "Civilized" when they can survive in any discursive practice with full acknowledgement of digital infrastructure. This can be seen from their acceptable business, and social practices—which, of course, include educational practices. A tradition of excellence in education civilization can still be maintained, namely science was academically and legally passed down from time to time by the previous authorities (Roqib & Sabiq, 2022), and further developed by current authorities for the future generation of science and technology manifested in skills and or competencies to save the world. It is argued that while online education has become the major concern in accordance with the spirit of digital technologies, offline learning may still be preferred as one form of educational services. Therefore the implementation of hybrid learning is further confirmed as one solution to both online and offline modes of education to maintain such a tradition of excellence in education (Eyal & Gil, 2022).

CONCLUSION

Based on evaluation of the implementation of the government's design of flexible learning (Flexi-College Education) termed as MBKM (Merdeka Belajar Kampus Merdeka), we managed to propose a hybrid learning model termed as Hybrid Learning which is recommended for use after the end of the global Covid-19 Pandemic to accommodate those who have been in the comfort zone of online education and those who have occasional reference to the tradition of offline learning. Under the guidance of professionals with modern educational technologies, hybrid

classes can be set up with ease and at relatively affordable cost. Each institution has a wide range of choices regarding the digital technologies in support of hybrid learning. As well, forms and practices of the new civilization (order) including educational practices have to comply with the demands for a better living condition (Society 5.0).

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