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A Model of Distance Learning Evaluation in Implementing the Independent Learning Curriculum in Special Circumstances Such as The Covid-19 Pandemic in Indonesia

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Abstract

This research aims to find a model for evaluating the distance learning (DL) process when special circumstances such as a pandemic or disaster occur by comparing the strengths and weaknesses of all the models studied. When the COVID-19 virus outbreak occurred globally, it became a comprehensive trigger for implementing distance education, especially in Indonesia. A new concept known as the Independent Learning Curriculum (ILC) in the distance learning (DL) process has been applied. However, as a result, all regions have not the same readiness to implement this system. Geographical and demographic conditions, which are different, have resulted in the implementation of the DL still encountering various problems. The complaints of education stakeholders regarding student participation are still lacking, and technical and non-technical problems around DL require proper evaluation. The literature study method was carried out to examine the appropriate evaluation model for the DL system with the ICL concept. As a result, an appropriate evaluation selection in the DL process is used the objective-based approach of Tyler's model. In addition, during the corona outbreak, a framework is proposed to achieve the goals according to the evaluation model selected in the DL process.

Keywords: distance learning, curriculum, Tyler model, corona

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INTRODUCTION

When the general Covid-19 disease epidemic has become an international concern, it has caused a public health emergency and posed challenges to psychological resilience (Cuiyan et al., 2020). All aspects of life are looking for the right formula to survive and try other alternatives not to stop, one of which is the world of education. According to (Toquero, 2020), the challenge and opportunity for higher education in the Covid-19 virus is to take appropriate educational countermeasures to continue educating students despite difficulties during a pandemic.

In Indonesia, before the corona pandemic outbreak occurred, a new curriculum is implemented with the concept of the ILC at the primary, secondary and higher education levels. Along with the outbreak of Covid-19 in March 2020,

the government declared a national disaster. Of course, we look for efficient and effective learning strategies in education.

The combination of the concept of ILC and DL is a new challenge. This condition causes teachers, lecturers, and students to experience such heavy turbulence and have no other choice to avoid it. Zoom, Google Meet, WhatsApp, and e-learning applications are viable choices for DL with the concept of ILC. The DL is not a new learning phenomenon. The DL evolved from correspondence studies, open university, teleconferencing, networking, and multimedia delivery to web-based technologies (Passerini & Granger, 2000). Therefore, mastery of technology in the DL process as a whole is very necessary. (Sintema, 2020) highlights the influence of Covid-19 on student performance for STEM education in Zambia. The use of advanced technology in secondary schools in Zambia is due to limited technological resources. The shows that it was a very difficult task for a country that had just launched the implementation of STEM Education nationally in the early period. In addition, there is a greater need for educational institutions to strengthen practices in the curriculum and make them more responsive to the learning needs of students, even outside the conventional classroom (Toquero, 2020).

The same case is also experienced by 34 provinces in Indonesia separated by seas and have different population demographics. The geographical condition of the Indonesian state, an archipelagic country, must have the readiness of various infrastructure facilities and resources for DL policies during the covid-19 pandemic. Information obtained from students, teaching staff in all schools (elementary, middle, and high), and universities, there are several obstacles in implementing DL. Other problems arise in student participation, mastery of IT, the stability of internet connections, the availability of implementation standards in the educational environment, respectively. At that time, DL forced all elements of education to immediately use it. However, the main goal must be within the corridor of successful implementation of the program itself. Thus, cellular technology is an option to study at home in fulfilling the Indonesian government's policy in education. This flexibility can lead to several consequences that students may not imagine. One of the short-term drawbacks of the widespread use of mobile technology by learners is the problem of interaction and information overload (Motiwalla, 2007).

Concerning DL, high-speed internet access is needed to make learning programs successful during the pandemic. Therefore, without exception, all universities and schools, especially in Indonesia, must immediately clean up and prepare themselves. However, the question that arose at that time was whether DL with ILC applied in Indonesia could optimize the results achieved in terms of the desired quality. A conceptual framework is needed to evaluate the implementation of DL during the pandemic thoroughly. Various models have advantages and disadvantages that can use to evaluate the DL process. Therefore, the aim of this paper is to derive an evaluation model of ILC in the DL process and propose a framework according to the selected evaluation model in certain circumstances, such as the COVID-19 pandemic.

METHODS

In this paper, a literature review of techniques used from various literature and scientific studies is used to obtain the right evaluation model to be used in the DL process according to the geographical conditions in Indonesia. Literature study of listening techniques can be divided into several techniques, including note-taking techniques. The note-taking technique is a data collection technique using books, documents, literature, and scientific journals obtained in conventional and electronic libraries. Then record or quote the opinions of experts in the book to strengthen the theoretical basis in research.

RESULTS & DISCUSSION

Distance Learning (DL)

Today, online media as an elaboration of Information and Communication Technology (ICT) in learning has brought changes and improvements in all aspects of education. However, according to (Casanova et al., 2011), the impact of ICT on student learning experiences in Higher Education (HE) has not been evaluated regularly due to the lack of importance of ICT integration in pedagogical strategies. Meanwhile, E-learning has transformed traditional learning into online learning that offers DL and accesses online content in a flexible time (Haron et al., 2017).

Globally, the use of distance education (DE) and DL both continue to experience exponential growth. However, according to (Olmsted, 2010), one of the program factors supporting student success is building a DE facility. Therefore, administrators and educators should consider building educational programs based on sound pedagogical principles when using DL. On the other hand, collaborative and communicative discourse is needed to catch up with knowledge, recent technological developments and encourage more people to learn, especially adults (Kim et al., 2011). The main indicator is the expression of flexible content and able to adapt quickly to various social and cultural issues and its open nature. In addition, at the level of implementation and access, the DL system must be understood by students well and work together with the system (Zaikin et al., 2011).

Regarding the quality of e-learning, (Ossiannilsson & Landgren, 2012) concluded that the success of e-learning requires changes from both an organizational and pedagogical perspective. The ongoing educational revolution and its learning will be oriented along the paradigm of collaboration and internet networking. Therefore, the students responding to the DL and DL processes must have the right learning strategies, and they must have good time management. In DE, time and effort management and complex cognitive strategies used are positive predictors of student academic performance (Neroni et al., 2019). Table 2 shows several studies on success factors in online-based education summarized by Menchaca and Bekele.

Furthermore, linkages and interactions between teaching students and educational institutions are needed in DL. According to (Abdullah, 2015), the implementation of the E-learning process requires a new learning culture. For example, today's students may be technologically proficient but not necessarily

adept at learning in a distance learning environment. For academics, to overcome this deficiency is very important by considering the readiness of their students. In other words, the success of a student depends on academic readiness and institutional readiness.

Several media, such as email, web-based education, online chat, and audio conference, are believed to assist the DL process. In this case, the concept of learning for students is not limited by space and time. The ILC concept that has been applied in DL can be continued and developed by continuing to prepare adequate technology tools. In addition, careful administrative planning and management are very necessary. Many studies have proven that face-to-face learning can be as effective as face-to-face or conventional instruction (Foo et al., 2021). However, this will be achieved using methods and technology by the instructions given to the task. For example, students' interactions, the interaction between educators with students, and feedback from students with their educators. However, in the COVID-19 pandemic era, the use of Google Meet, Zoom, Whats-App, and the participation rate of student attendance in the learning process has not fully reached 100% (Fatmarani, 2022). The economic problems in certain areas that affect the availability of data packets for students who have to study from home, the instability of the internet network, and the ability to adapt to this DL culture are significant obstacles.

Table 2. Summary of Success Factors in Online Learning

STUDY	FACTORS
(Abel, n.d.)	Motivation, measurement and expectations, student and faculty support, and delivery formats
Bekele and Menchaca (in press)	Motivation, measurement and expectations, student and faculty support, and delivery formats
Carr-Chellman and Duchastel (2000)	Study guides, projects/assignments, online examples, course communication via asynchronous and synchronous tools, and interactive skills development
Erlich et al. (2005) & Gilbert et al. (2007)	Previous courses in computer literacy and applications
Gilbert et al. (2007)	Comparison of theory-practice, multiple subject themes, social interaction, and support services
Ostlund (2008)	Structure, autonomy, dialogue and social presence
Pituch and Lee (2006)	System characteristics such as functionality, interactivity, responsiveness, self-efficacy, and Internet experience
Romero et al. (2007)	Learner beliefs, prior operational and conceptual knowledge, teacher attendance and involvement, communication between teachers and students, and cultural issues related to managing change, motivation and technology platforms
Shih et al. (2006) Soong et al. (2001)	Previous Internet experience Human factors (instructor's time and motivation), technical competence (instructor and student), mindset about learning (student and instructor), high collaboration, IT infrastructure, and technical support
Weaver (2008)	Relevant learning resources, timely feedback, and interaction with teachers, administrative support, experience at WebCT
Yan (2006)	Previous experience using computer network systems

To educational programs, several elements must be possessed by evaluators. These include assessing student performance, determining program and cost-effectiveness, monitoring technology quality services, evaluating course design and

instruction, and ensuring teacher and student satisfaction (Rovai, 2003). Ralph Tyler is the father of educational evaluation, has made a considerable contribution to evaluation. Tyler conducted an eight-year study (1932-1940) assessing program outcomes in 15 progressive secondary schools and 15 traditional secondary schools. Tyler found that teach goals can be clarified in terms of behaviour. These objectives can serve as a basis for evaluating teaching effectiveness (Hogan, 2007). He is considered the originator of the linear model of curriculum development and developed a model based on the objectivity paradigm. There are four main steps of Tyler's approach: (1) Identify teaching objectives, (2) Select useful learning experiences, (3) Organize learning experiences in the best way, and (4) Evaluate learning. This learning must have harmony among the four. For example, learning objectives should always be consistent with the learning experience and evaluation components. Goals will drive the entire curriculum development process (Vrasidas, 1995). Figure 1 shows the four main steps of Tyler's model approach.

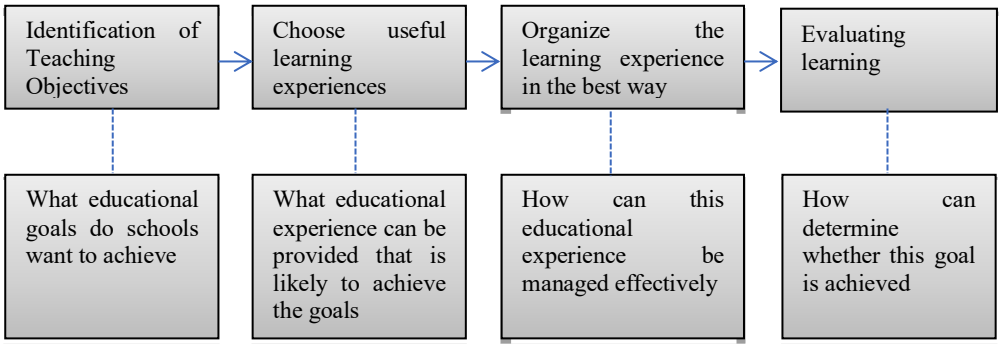

Figure 1. The Four Main Steps of Tyler's Model Approach

Goal-based studies (Tyler) are a classic example of a question-oriented evaluation approach. In this approach, several statements of purpose are addressed to the organizer first. Goals can be mandated by the client, formulated by the evaluator, or determined by the service provider (Stufflebeam, 2001). Tyler considers evaluation as the process of determining the extent to which the educational goals of a school program or curriculum are being achieved. He proposed a process by which broad goals or objectives would be set or identified, defined in behavioral terms. Appropriate student behavior will be measured against benchmarks using standard instruments or instruments developed by evaluators. The outcome data are then compared with behavioral goals to determine the extent to which performance matches expectations. Differences between performance and goals will lead to modifications intended to correct deficiencies, and the evaluation cycle will be repeated (Worthen, 1990). Aspects of Tyler's thinking include three sources of curriculum related to his conception of education as essentially experience with (1) his approach to assessment as evaluation rather than as measurement, (2) his approach to curriculum development as a problem-solving process, and (3) his commitment to participation teachers in curriculum development and teaching (Wraga, 2017).

The main stages of evaluation, according to Tyler, are (1) setting general goals, (2) classifying goals or objectives, (3) defining goals in the context of

behavioral terms (4) determining situations in which goal achievement can is demonstrated. (5) develop or select measurement techniques, (6) collect performance data, and (7) compare behavioral performance data describing goals (Brookfield, 1982). The evaluator can determine the level of achievement of program objectives, and if the objectives are not achieved, it means that the teaching program has deficiencies. On the contrary, the achieved goals indicate a successful instructional education program (Anh, 2018).

Application of ILC

At the technical implementation level, policymakers in educational institutions are faced with several questions. For example, preparations must be made quickly, how they meet the needs of students based on their level and field of study, and how to increase capacity and quantity to carry out the DL process. This issue puts the Ministry of Education and Culture in a position to take a policy. Among other things, they decide the DL process, which is a type of asynchronous learning, as the most appropriate option during the COVID-19 pandemic. In other words, DL with the digital format becomes an option.

On the other hand, the teaching process must also include students' varied tasks and activities by placing COVID-19 as a global and historical context challenge. These considerations ultimately led to the ILC concept finding a massive acceleration movement during its emergence as a newly rolled out government regulation. With COVID-19, the implementation of ILC policies has become faster than the actual one (Abidah et al., 2020).

Furthermore, the ILC regulation contains four programs regarding the National Examination or UN (in Indonesia) policy, the National Standardized School Examination policy or USBN (in Indonesia), the simplification of the Learning Implementation Plan (LIP), as well as the New Student Admission or PDDB (in Indonesia) policy. Regarding the first thing, the National Examination will be substituted with a minimum competency assessment and character survey. The emphasis of the assessment lies on literacy and numerical reasoning abilities based on the Program for International Student Assessment (PISA) test (Hawa & Putra, 2018). PISA is a world-level ranking evaluation held periodically every three years, which aims to test students' academic performance aged 15 years (Puspitasari & Ratu, 2019). The PISA study is used to test and compare the achievements of school children around the world to improve educational methods and results (Hartini et al., 2018). The PISA standards-based competency assessment is not without purpose. Educators as main learning actors are expected to have independence in assessing the learning outcomes of their students (Darmadi, 2015).

The COVID-19 pandemic has opened up opportunities for the ILC concept to spread to the practical implementation level in education. This step has brought a new perspective for educational institutions to constantly renew learning patterns and accompanying curriculum tools to realize learning goals and produce creative, innovative, and developing human beings.

Proposed Framework

In an interview with online media, the Minister of Education and Culture of the Republic of Indonesia said that he had reviewed the possibility of implementing an emergency curriculum due to conditions that required studying at home during

the Covid-19 coronavirus pandemic (cnnindonesia.com, April 15, 2020). Very fast curriculum preparation, of course, can disrupt the ongoing learning process. On the other hand, according to Charismiadji (2020) from an education observer from the Center of Education Regulations and Development Analysis (CERDAS), argues that the government does not have to make an emergency curriculum for the coronavirus as desired by the Minister of Education and Culture (cnnindonesia.com). He believes that the current curriculum can empower DL, but the obstacle lies in understanding educators and limited facilities. In addition, teachers have not maximized the curriculum in teaching in schools.

Regardless of whether or not there is a need for a new curriculum, evaluation of DL implementation is required. That is related to the improvement of learning models in the 21st century in the future. Covid-19 can be a big problem, but it can also be an opportunity to implement a comprehensive DL system by utilizing the internet network. In this paper, the proposed framework for evaluating DL refers to the Tyler model approach. Tyler's model states that if the goal has been achieved, a decision will be taken and vice versa; if it has not been achieved or only partially achieved the goal, another decision will be taken (Yusuf, 2015). Figure 2 shows Tyler's proposed framework for evaluating the implementation of DL with the ILC concept in Indonesia.

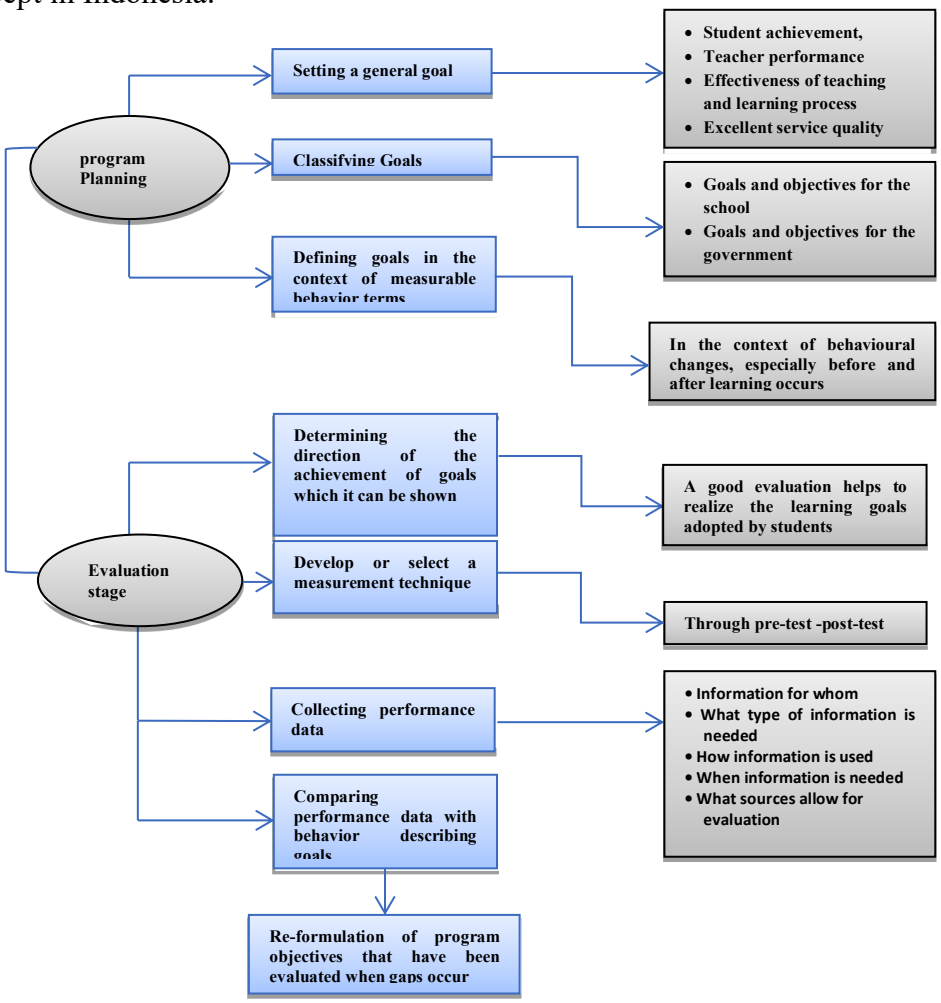

Figure 2. Evaluating the implementation of DL with the ILC Framework

As seen in Figure 2, two main sections are covering the program planning section and the evaluation phase. The planning section consists of setting general DL goals related to indicators of success in achieving their goals. The indicator is how students' learning achievement after using the DL system. Several problems were surrounding students in the Covid-19 pandemic situation, such as laptop/computer equipment, cellular phones, limited credit quotas, and the quality of telecommunication networks, respectively. In particular, this is a crucial problem for the poor quality of telecommunication networks for remote areas. The effect is very disruptive to learning with poor network conditions.

On the other hand, teachers' performance related to creativity in teaching is not all able to use information and communication systems in online learning well. Therefore, the method and management of media should be improved as soon as possible by the teacher. The effectiveness of the teaching and learning process through DL cannot be optimal if the network connection is not stable, and the saturation that can occur due to the monotony of this learning system. Interaction in learning can be lost if there is no internet network and data credit quota for both teachers and students. As a result, the teacher only gives many assignments to do, and then the students collect.

The Covid-19 pandemic has forced the world of education to adapt quickly. Firstly, the evaluator must pay attention to the problem to reveal how effective DL is in a pandemic situation. Secondly, the evaluator can see changes in each individual through the pre-test to determine the students' initial abilities before going through the DL and post-test after learning the DL. Thirdly, in collecting data, the evaluator carefully determines what type of information is needed to be associated with the right source of information. Next, the evaluation results can consider education policymakers, such as teachers in schools, to improve. Finally, if a gap is found in the evaluation, then the program objectives that have been evaluated can be reformulated.

CONCLUSION

This paper reveals that basically, the regulation of the ILC concept finds its implementation synergy during the current epidemic of COVID19. The regulation is carried out in real terms by integrating web-based learning patterns by utilizing cyberlearning media that provides flexibility for educators and students in accessing, utilizing materials, assessments, and collaborations that can do online without worrying about violating health protocols during the pandemic COVID-19. Although the DL program has advantages in terms of flexibility in learning with ILC concept, the learning objectives are evaluated to find improved deficiencies. The Covid-19 pandemic, which does not yet know when it will end, is, of course, the reason why DL is launched "faster" throughout Indonesia. However, through the right evaluation framework, Tyler's evaluation will provide the right measurement results. According to the evaluation results, the results can consider the government and educational institutions to continue the DL program with improvements.

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