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Influence of the ICT learning model on quality improvement at Mandiri LPK SNU'R Bogor

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ABSTRACT

One way to improve the quality of learning is by increasing the relevance of the teaching model. The teaching model is said to be relevant if in the process it can deliver students achieve educational goals with relevant models according to their needs. A training and course institution (LPK) is a form of non-formal education unit organized for people who need knowledge, skills, and attitudes to develop themselves. The main study was carried out on LPK Mandiri Snur located in Bogor, West Java, regarding the effect of the information communication technology (ICT) learning model on improving the quality of the training and skills aspects carried out by LPK so that they can compete in the industrial world. In particular, the problems studied and analyzed and the purpose of this research is to analyze the use of ICT in influencing the learning model and analyze the influence of the ICT learning model on the quality of learning at LPK Mandiri Snur Bogor. The research design uses a mixed method approach combining quantitative research approaches and qualitative research approaches. The approach begins with implementation, planning, data collection, hypotheses, data analyzers, and interpreters. Based on the analysis test, it is known that the ICT learning model has a significant effect on quality. The results of the learning model of the use of ICT for quality present similar conditions for online, offline, and blended learning. The influence of the ICT learning model gets several results in quality, namely increasing student skills, changing attitudes, awareness, and abilities of students' human resources in using ICT, human resource development has a significant effect on the quality of learning at LPK Mandiri Snur Bogor.



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Introduction

Communication is a very important thing in social life since humans were created by the Creator. Communication makes what is meant by one person understandable to another. Even the creation of an agreement is due to communication. Individuals can become one, that is, understand what other people are saying. As well as providing support for what is intended by the individual either in the form of approval or a constructive criticism of what was conveyed by the individual. Communication is the process of delivering messages from one person to another to inform and change attitudes, opinions, or behavior either directly or indirectly through the media. The science of communication also studies the problem of the process, namely the process of delivering one's message to others to change attitudes, opinions, and behavior. Development is a type of social change, in which new ideas are introduced into a social system to lead to greater per capita

incomes and a better standard of living through more modern methods of production and better social organization Rogers in (Yuniarti, 2016) . According to (Sitompul, 2002), in simple terms, development is a useful change towards a social and economic system that is decided by the will of a nation. In another part, Rogers in (Yuniarti, 2016) stated that communication is the basis of social change.

Development communication is an effort to convey development ideas and skills from those who initiated development aimed at the wider community with the aim that the community understands, accepts, and participates in implementing the ideas submitted. Development communication includes the role and function of communication between all parties involved in development efforts, between the community and the government, starting from the planning, organization, implementation, and control of development processes. (Nasution, 2002). In development communication, the priority is the activity of educating and motivating the community. The aim is to instill ideas, mental attitudes, and skills needed by a developing country.

From the perspective of development, communication includes the study, analysis, promotion, and evaluation of information and communication technology (ICT) in the development sector. One approach to fostering community participation is through development communication. Communication in supporting the development process is very important, especially in the field of information delivery, socialization of a development program, and government interaction with the community. Currently, the coronavirus 19 (Covid-19) pandemic has had a significant impact on various sectors, including learning. To prevent the spread of Covid -19, the learning process is carried out using a distance learning system (PJJ).

In the implementation of PJJ during the Covid-19 pandemic, technology with all its systems is the key to implementing learning that can bridge interaction, communication, and collaboration between teachers and students who are separated by distance. However, the existence of technology will become useless if it is not accompanied by technology-literate teachers and learners. The use of ICT during distance learning during the Covid-19 pandemic will encourage increased technological literacy which results in new habits in the learning process in the future (Hardinata et al., 2020). In previous research conducted by (Iswadi & Herwani, 2021), it was stated that the use of ICT in the current era is very important and must be utilized because the rapid and more advanced growth of ICT can help humans in various aspects of life, such as education. There have been many benefits felt not only by operating computers but also by learning about programmers, inputting data, and providing information to the wider community, but it is not uncommon for teachers and students to still lack knowledge of ICT.

The teaching model is said to be relevant if in the process it can deliver students achieve educational goals. Therefore, efforts are needed to be able to convey subject matter to students with models that are relevant to the needs of students. One way to improve the quality of learning is by increasing the relevance of the teaching model. Trainers are the main key to success in producing quality learning and training, therefore trainers must have the ability to design learning to be meaningful and useful, especially at this time in facing the coronavirus pandemic so that students are asked to study at home to avoid exposure to C. Ovid 19. trainers and students must conduct online learning.

online learning models from trainers so that students continue to receive a quality education. To apply it, varied learning is needed so that students are enthusiastic about learning. Interesting and fun learning and teaching process require creative, innovative, and fun activities so that students can think critically, creatively, and constructively. Such as how the online learning model that can be done during the Covid 19 pandemic is suitable for learning for students, how the variations of activities carried out in online learning, what are the steps for online learning, and what are the advantages and disadvantages of online learning. All are packaged in a learning model provided by the trainer in addition to the offline learning model that is usually given.

The influence of the ICT learning model on the quality at LPK Mandiri Snur Bogor is also in line with previous studies that have identified the Investigation of the Effect of the Integration of Arduino to Electrical Experiments on Students' Attitudes towards Technology and ICT by the Mixed Method (Kirikkaya & Basaran, 2019); ICT integration in the classroom: Challenging the potential of a school policy (Tondeur et al., 2008); A mixed-method study of EFL teachers' Internet use in language instruction (Chen, 2008), the findings show the influence of the ICT learning model on the quality that is carried out as a measure, ICT integration also affects the entire training system. In this study, it explains the use of ICT in the teaching and learning process during the COVID-19 pandemic with technological sophistication as it is currently facilitating students and teachers in the teaching and learning process. That's all the learning methods, and students will feel happy learning with many methods even though they only study online. The purpose of this research is to inform people that currently advanced and sophisticated technology needs to be utilized as best as possible in all fields, be it work, education, business, and many more. so that the whole community knows that technology is currently advanced and the community is not left behind by current technological advances.

Method

Design in study use approach study Mix method _ combine approach study qualitative and study quantitatively. Approach study qualitative started with implementation, planning, collector data, hypothesis, analyzer, interpreter of the data and finally become a reporter for the results of his research. A quantitative research approach with a cross-sectional design to see the completeness in accordance with the standards. The training is centered on the characteristics of students who use ICT in LPK including education, age, social status, media exposure, and education. A qualitative approach to see the implementation of training using ICT which includes the characteristics of a professional LPK, human resource development, and organizational aspects. The method of data collection is done by document analysis (Moleong, 2021).

Study this use strategy method mixture sequential or gradually (sequential mixed methods) especially exploratory strategies sequential. In this strategy, the first stage is to collect and analyze quantitative data followed by collecting and analyzing qualitative data which is built on the initial quantitative results. This weight or priority is given to quantitative data (Creswell, 2009). In this study, in the first stage of collecting and analyzing quantitative data in achieving the objectives of this study, namely for knowing application p usage ICT which is related to p learning blended learning. In T second stage, collect and analyze qualitative data in this case to achieve other goals study this on the implementation of learning training blended learning. Mixed method approach _ in this study using the type study explanatory sequential. Study this step combines two forms of research that have existed before, namely: study quantitative and study qualitative.

The first procedure in this study is a literature review and expert consultation, which is done to collect various information related to research problems. Information is obtained through literature reviews and consultations so that researchers really understand the issues and concepts involved in the research. The second is studying and approaching; this process is carried out so that researchers can study and make an approach according to what will be studied. Third, by fostering and utilizing good relations with respondents, this process is carried out to find out how the respondent's mindset and habits are carried out and what language is used. During the four trials, this process is carried out to find out whether the instrument can be used or not. Fifth, formulate and compile questions. This process is carried out to compile the instruments that have been obtained in the form of relevant questions.

The sixth step is to record and code; this process is carried out to facilitate analysis because, by recording all the information obtained, it will make research easier. Seventh, cross-checking—this process is carried out to re-check the correctness of the information obtained so that no doubts are felt. qualitative analysis techniques through documents, namely secondary analysis, which involves more than just citing existing research but also implies a re-analysis of the data. Research analysis techniques are carried out by analyzing documents, journals, and websites. After collecting the data that has been obtained, an explanation of the data found will be carried out, with full attention and openness to things that arise outside of what you want to explore. The data will then be analyzed so that you can get an overview of the data found.

Results and Discussions

The paradigm of online learning or online learning has changed teacher-centered teaching but is more concerned with being more student-oriented. Learning in this digital era is effective learning by using technology. Especially during the current Covid-19 pandemic. So, this online learning must be done by trainers and students so that the training continues to learn. Online learning can be done using the zoom application, google class meet, making short explanatory videos that can be shared with WhatsApp, youtube, and video recordings that this media can be used repeatedly. Trainers must be able to use technology for use in learning and require smartphone facilities that support online learning and be able to use it and be able to connect to the internet. This virtual learning is done face-to-face using an online application. Students need an explanation that is done directly, this is to facilitate students whose learning style is auditory or listening and visually or seeing directly. One alternative is to use an ICT learning model with offline, online, and blended learning categories with the indicators of the ICT learning model, namely the level of skills, changes in attitudes, awareness, and knowledge of students.

Learning models are divided into online, offline, and blended learning. Online learning is different from learning in the classroom (offline) and requires a special strategy in providing a means of communication or interaction between students and trainers and between students themselves. Furthermore, one form of the development of information technology that is applied in the world of education is online learning, as well as online learning, blended learning as a combination of online and offline lectures. In the learning process, the application of blended learning requires an application that can be used are google meet and zoom meetings used by trainers and students which can be accessed via the internet by combining social networks and

learning management systems, as well as the learning model at LPK Mandiri Snur Bogor using the three indicators of the learning model, namely by category online, offline and blended learning.

Trainers are required to design or plan quality and meaningful learning so that students can connect learning with everyday life and the problems they are currently facing. For example, the trainer provides material related to Covid 19, natural disasters, utilization of natural resources, care for the environment, and provides learning that makes students character. Although in this online learning, students and trainers do not meet face-to-face, the trainer also invites students to be disciplined, cooperate, respect each other, have good manners, be honest, and care for each other. Online or online learning models can be used to convey learning without being limited by space and time, can use various sources that are already available on the internet, teaching materials are relatively easy to update, and add further increasing students' independence in the learning process. To provide online learning, trainers are required to be able to use internet technology that can make it easier for trainers to provide learning. The trainer must have the ability and skill in using the media from the laptop and the applications it uses.

The following is an analysis of respondents' descriptions based on the category of indicators of the influence of the learning model on the quality of learning for students with indicators of the learning model, namely skill levels, changes in attitudes, awareness, and knowledge of students with offline, online, and blended learning categories in the cosmetology department, fashion, and catering at LPK Mandiri Snur Bogor is set out in table 1 below:

Table 1. Analysis of Respondents' Descriptions Based on The Indicator Category of The Influence of The Learning Model on The Quality of Learning of Students at LPK Mandiri Snur Bogor, 2022 with a Percentage

Learning Model Indicators	Category	T. Makeup (n=40)		Q. Clothing (n= 38)		T. Catering (n=19)		Total (n=97)	
		Number of people)	(%)	Number h (person)	(%)	Number h (person)	(%)	Amount (person)	(%)
Skill level	Blended Learning	13	32.5	21	55.3	7	36.8	41	42.27
	Online	17	42.5	15	39.5	9	47.4	41	42.27
	Offline	10	25	2	5	3	15.8	15	15.46
Average score		3.24							
Change of attitude	Blended Learning	18	45	23	60.53	14	73.68	55	56.7
	Online	18	45	14	36.84	0	-	32	32.99
	Offline	4	10	1	2.63	5	26.32	10	10.31
Average score		3.16							
Awareness	Blended Learning	29	72.5	29	76.3	14	73.68	72	74.23
	Online	9	22.5	8	21.1	5	26.32	22	22.68
	Offline	2	5	1	2.6	0	-	3	3.09
Average score		3.70							
Knowledge	Blended Learning	24	60	19	50	14	73.7	57	58.8
	Online	9	22.5	18	47.4	5	26.3	32	33
	Offline	7	17.5	1	2.6	0	-	8	8.2
Average score		3.51							

Description: low: < 1.67 ; medium: 1.67-3.33; height: > 3.33

Description analysis results on the influence of the learning model on the quality of student learning at LPK Mandiri Snur Bogor above shows the indicators of the learning model, namely having a balanced capacity or almost the same but the level of awareness and ability of students is superior to other indicators in influencing the quality of learning in students as shown in the percentage of Table 1. The skill level indicator shows the medium category in the three majors, namely cosmetology, fashion, and catering, it means that most of the participants consider it influential because there is an increase in skills due to the impact of the learning model in learning so that it is of high quality and there is an increase in learning. The indicators for the change in the attitude of the three majors, namely cosmetology, fashion, and catering, are also in the moderate category, this shows a moderate category which also affects the quality of learning because most of the students who do have a high attitude change as impact quality training material models.

The indicators of student awareness of the three majors, namely cosmetology, fashion, and catering, are superior and in the high category, this shows that the indicators of student awareness greatly affect the quality of learning because most students have a high awareness of the impact models of quality training materials to raise awareness for the students. On indicators of the ability of students in the three majors, namely cosmetology, fashion, and catering in the high category, this shows the influence of the learning model on the quality of learning. In this health crisis due to Covid-19, it is very influential at LPK Mandiri Snur Bogor. Then calculated the average score of each indicator of the influence of the learning model on the quality of learning using the total score/number of respondents formula, based on the reference on the skill level indicator the average score was 3.24, on the attitude change indicator the average score was 3.16, on the indicator of student awareness the average high score is 3.70 and on the indicator of the ability of students the average high score is also with a value of 3.51.

Furthermore, in the following table, the analysis of respondents' descriptions is based on the indicator category of the influence of the learning model on the quality of the trainer at LPK Mandiri Snur Bogor with learning model indicators at the skill level, attitude change, student awareness and student abilities with low, medium and high categories in the majors in make-up, fashion and catering in table 2 below:

Table 2. Analysis of respondents' descriptions based on the indicator category of the influence of the learning model on the quality of trainers at LPK Mandiri Snur Bogor, 2022 with a percentage (%)

Learning Model Indicators	Category	T. Makeup (n= 2)		Q.Clothing (n= 2)		T. Catering (n= 2)		Total (n= 6)	
		Number of (people)	(%)	Number h (person)	(%)	Number h (person)	(%)	Amount (person)	(%)
Skill level	Offline	0	0	0	0	0	0	0	
	Online	0	0	0	0	0	0	0	
	Blended learning	2	100	2	100	0	0	6	100
Average score									4.00
Change of attitude	Offline	0	0	0	0	0	0	0	
	Online	0	0	0	0	0	0	0	
	Blended Learning	2	100	2	100	0	0	6	100
Average score									4.00
Awareness	Offline	0	0	0	0	0	0	0	
	Online	0	0	0	0	0	0	0	
	Blended Learning	2	100	2	100	2	100	6	100
Average score									4.00
Knowledge	Offline	0	0	0	0	0	0	0	
	Online	0	0	0	0	0	0	0	
	Blended Learning	2	100	2	100	2	0	6	100
Average score									4.00

Description: low: < 1.67 ; medium: 1.67-3.33; height: > 3.33

The results of the analysis of the description of the learning model on the quality of The trainers at LPK Mandiri Snur Bogor above show indicators of ICT utilization, namely skill level, attitude change, trainer awareness, and the ability of the trainer to have a capacity that is balanced or equal to the high category with the blended learning category as the main choice in training and learning as the most effective learning model. influence from the three majors, both in cosmetology, fashion, and the culinary arts can be seen in the percentage in Table 2.

Then the average score of each indicator of the influence of the ICT learning model on the quality of learning is calculated using the total score/number of respondents formula, based on the reference on all trainer quality indicators worth 4.00 which indicates the trainer's learning model is very influential on the quality of learning, especially in the blended learning category. Based on the analysis, observation, and implementation of online learning conducted during the COVID- 19 pandemic, students can take part in blended learning well. Students follow what the trainer teaches, students follow online and offline by following directly by listening to the trainer's explanation via zoom, google c class meeting, or video, then opening the material on google classroom to learn the material independently given by the trainer.

activities and exercises also help students understand the material that has been studied. Blended learning sometimes goes wrong, due to several obstacles. Problems that are usually obtained from students are not

ready to practice, internet connection is not smooth, power failure, and running out of internet quota. The role of the trainer here is also very important because, in addition to providing learning material, it must also motivate students and know their condition of students. Furthermore, in the next table regarding the statistical analysis of inferential coefficients the influence of the ICT learning model at LPK Mandiri Snur Bogor on the quality of learning with indicators of skill level, attitude change, student awareness, and student ability with learning models with categories online, offline and blended learning in table 3 below:

Table 3. Inferential statistical analysis of the coefficient of the influence of the ICT learning model on the quality of learning at LPK Mandiri Snur Bogor, 2022

Learning model	learning quality (coefficient)				
	T level	Skills	Change _ attitude	Student awareness	Ability learners
Online	.406**		.021	.394**	.215*
Offline	.341**		.073	.322**	.148
Blended learning	.479**		.005	.493**	.203*

Description: *significant at 0.01 = simple linear regression coefficient.

**significant at 0.05

The influence of the learning model of a study group Keep going changed following the changing times caused by process change so that the adaptation process also continues. The results of the coefficient value ICT learning model on the quality of learning at LPK Mandiri Snur Bogor in 2022 show a learning model by using a simple linear regression test. On online indicators, the use of ICT has a significant effect on the level of skills and awareness of students, especially on their abilities of students. In offline indicators, the use of ICT has a significant effect on the level of skills and awareness of students and the blended learning model, in the inferential statistical analysis of the coefficient according to the table above, the learning model has a significant effect on the level of learning quality, especially on the level of skills and awareness of students and also on the ability of students in LPK Mandiri Snur Bogor.

From the table above, it shows that each learning model has a learning quality that has a significant effect in accordance with existing indicators, especially in the level of skills and awareness of students, as well as on the ability of students in online learning and blended learning models which have a significant effect on the quality of learning. The results of the indicators of student learning activity include students actively participating in the implementation of the tasks given by forming groups, actively asking questions, discussing, actively seeking information related to the given topic to be played, and students actively involved in problem-solving in the form of appropriate role division. and able to assess their abilities by using various learning models, namely offline, online and blended learning.

Things that need to be considered regarding online learning during the Covid-19 pandemic, namely not all effective learning materials using online learning, online learning that is being undertaken at this time is not fully planned properly, but a sudden and forced conversion due to the situation, therefore other than online there is also the blended learning model, which is a combination of offline and online. Initially, the learning process was fully planned to be carried out face-to-face, but in the middle, it was forced to be implemented online. Mastery of training materials is important in learning in all forms of activity, both in the planning stage, such as when choosing strategies and learning media to be used so that the target learners to master a learning and training material can be achieved and of high quality.

Inferential statistical analysis of the coefficient of the effect of the use of ICT use on the learning model at LPK Mandiri Snur Bogor with several learning models with offline, online, and blended learning indicators with the use of ICT such as efficiency, effectiveness, and student characteristics are set out in table 4 below:

Table 4. Inferential statistical analysis of coefficients of the effect of the use of ICT on learning models at LPK Mandiri Snur Bogor, 2022

Use of ICT	Learning model (coefficient)		
	Offline	Online	Blended Learning
Efficiency	.418**	.422**	.461**
Effectiveness	.844**	.795**	.695**
Characteristics of students	.317**	.302**	.591**

Description: *significant at 0.01 = simple linear regression coefficient

**significant at 0.05

To teach students according to the way of learning styles so that learning objectives can be achieved optimally there are various learning models. In practice, it is appropriate for all trainers to remember that there is no model of learning in most situations and conditions. Therefore, in choosing the right learning model, one must pay attention to the condition of the students, the nature of the teaching materials, the available media facilities, and the condition of the trainers themselves. Only at home without meeting fellow students and trainers, certainly has an impact on readiness and motivation to learn. Feelings of saturation will hinder the actualization of one's potential. Learning resources can be in the form of searching for material independently based online or by using an online model or blended learning with a learning system that is carried out independently by students with flexible time. In enforcing the policy, the learning process applies Blended learning is partly carried out from home online systems and partly offline systems. ICT learning planning for LPK participants is designed to achieve learning objectives, namely increasing the desire, initiative, and skills of students during the COVID -19 pandemic as a means of communication, especially in human resource development, especially in rural areas.

The results of the coefficient value the effect of using ICT on the learning model with the indicators, namely efficiency, effectiveness, and characteristics at LPK Mandiri Snur Bogor in 2022 using a simple linear regression test. On the efficiency indicator, students in the use of ICT have a significant effect on learning models in all indicators, both offline, online, and blended learning, this indicates that all learning model designs are very influential in increasing the desire, initiative, and skills of students. Likewise, the indicators of the effectiveness and characteristics of students in the use of ICT have a significant effect on the learning model in all indicators, both offline, online and blended learning, in LPK Mandiri Snur Bogor.

A study once conducted by Edy Prayitno dkk stated that the use of ICT can support improving the quality of learning, both from increasing the ability of teachers to prepare learning media and students' awareness and ability to use gadgets to support learning, as well as the application of library information systems to improve the quality of library services as a support for teaching and learning activities. The above opinion is in accordance with the research that has been conducted by Iwan. The use of ICT in education is very good and important because it provides broad insights to students, provides information that students and teachers have never known, and makes it easy for students and teachers. As a result of this ICT, students and teachers will not be left behind by today's extremely rapid technological advancements, and technological advancements can be integrated into the teaching and learning process.

Conclusions

Based on the first analysis test regarding the influence of the learning model of a study group Keep going changed follow the changing times caused by process change so that the adaptation process also continues. The results of the coefficient value ICT learning model on the quality of learning at LPK Mandiri Snur Bogor in 2022 show a learning model by using a simple linear regression test. On online indicators, the use of ICT has a significant effect on the level of skills and awareness of students, especially on their abilities of students. In offline indicators, the use of ICT has a significant effect on the level of skills and awareness of students, and in the blended learning model, learning model has a significant effect on the level of quality of learning, especially on the level of skills and awareness of students and also on the ability of students to indicate each learning model. ICT has a quality that has a significant effect in accordance with existing indicators, especially in the level of skills and awareness of students, as well as on the ability of students in online learning models and blended learning which have a significant effect on the quality of learning.

The results of the second analysis test regarding the description the influence of the learning model on the quality of student learning shows the indicators of the learning model have a balanced or almost the same capacity, but it appears that the level of awareness and ability of students is superior to other indicators in influencing the quality of learning in students , from skill level indicators and the change in attitude shows the moderate category, meaning that most of the participants consider it influential because there is an increase in skills due to the impact of the ICT learning model so that it is of high quality because most students have a change in attitude as a result models of quality training materials , there are indicators of awareness and ability of students superior and in the high category , this shows that the indicator of student awareness greatly influences the quality of learning because most of the students really have a high awareness as impact model of quality training material so as to raise awareness for the students, this also shows the influence of the learning model on the quality of learning in this health crisis situation due to Covid-19.

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