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Differences in Productivity of Student Questions in Online and Offline Learning in Post-Pandemic E-Learning State Islamic Religious Institute Ponorogo Regency

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ABSTRACT

The pandemic period provides free communication space through cyberspace, including students expressing their abilities by submitting questions during lectures through e-learning applications. When students study online with various daily behaviors that are carried out, they are still connected to online lecture activities. Concentration, learning behaviors, communication, virtual world literacy delivered, and interactions with other students or lecturers seem semi-formal. Several research facts about the ability to interact in language and collaborate which are supported by good learning processes and strategies will and good student behavior and good attitudes during online learning so that the level of saturation is minimal, it is suspected that students have progressed in the number of asking questions through e-learning. This data will be explored through a questionnaire from IAIN PONOROGO students who use e-learning during online learning. The questionnaire was conducted for students doing offline learning. Different test analyses to see the difference in the productivity of online and offline learning questions. The results show that the difference in question productivity is more significant in online learning. Further research is suggested to discuss the relevance of the questions between the themes discussed and the uniqueness of the field facts.

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1. INTRODUCTION

The importance of discussing the productivity of questions through e-learning applications in improving critical thinking skills. Student discussion in E Learning generates questions showing an understanding of mastery of the material so that online learning outcomes in implementing the 21st century 4C increase through group study (Sari, Suci Perwita; Siregar, 2020). Only online learning readiness is still low because online learning factors and synchronization of human resources are low, so an intensive learning approach is needed to improve students' questioning skills and questioning

skill patterns, (Sipayung et al., 2021), (Indriyanti et al., 2017),(Suprapto et al., 2013), The challenges of the learning process gradually at each stage in each country are different based on the level of flexibility in using the internet to switch to online learning, so try to innovate and collaborate with various scientific fields. to maintain a stable standard of teaching and learning process. (Tawafak et al., 2021), The achievement of this skill requires a critical thinking design in learning engagement in order to find fun learning patterns because design in the form of a Question matrix is good enough to be used as a guide in making questions. (Dorland, 2022), (Pramudiyanti et al., 2019);. Other critical thinking skill sets can be taught via Zoom to show that online questions cultivate advantages greater overall (Holloway et al., 2021), (Talwar et al., 2022),

Impact of positive feedback to improve reading comprehension skills which of course is also supported through masking techniques. Encourage active student engagement in online learning to facilitate their reading comprehension skills and evaluate conceptual students. (Reflianto et al., 2022); (Ho Thi My Linh, 2022.). The effect of project assessment-based e-learning on independence and learning outcomes during the co-19 pandemic had a significant effect. Therefore, the project assessment-based e-learning can be used as a reference for organizing learning during the Covid-19 pandemic. Partial understanding has a negative and significant effect on behavior cheating and academic misuse of information technology partially has a positive and significant effect on academic fraud behavior. (Widiana, 2022); (Nawawi et al., 2022).

Student learning attitudes towards the use of technology, performance expectations, and society have a direct positive effect on learning motivation, and indirectly have a positive effect on learning behavior because the relationship between knowledge and technology models can expand the context of e-learning specifically so that educators can implement e-learning systems. innovative learning that allows students to acquire and share knowledge anytime, anywhere. (Peng et al., 2022),; (Ansardeen, 2022). E-learning strategy guidelines are recommended for e-learning developers and stakeholders to increase the effectiveness of learning management systems, quality of education through the participation of all students, easy access to study materials, lecture processes and learning resources so that social norms, system access and self-efficacy influence motivation. behavior. (Ching-Ter et al., 2017) ; (Revythi & Tselios, 2019). The use of learning facilities in the classroom during a pandemic has an impact on interactive visual abilities so that students can describe the information discussed through e-learning. The effect of e-learning does not deny the ability to ask questions because e-learning learning guidelines through moodle involve students in easy participation. The scientific attitude of students through discussion has an impact on the question document in moodle showing the motivational value was maintained during learning during the pandemic. The offline learning process directly through written document instructions for each teacher can be used for process preparation and learning evaluation.

Moodle technology for full online classes or blended classes. in tertiary institutions show effective learning and empower student learning to prepare them for digitalization in the 21st century through the Edmodo, Webex, Google Meet, Google Classroom, Zoom platforms, in certain tasks being able to increase their academic achievement and engagement in language learning through e- book, namely Book Roll so that experiences students' learning, (Raman et al., 2022); (Yang & Ogata, 2022). Supported by the high trust value of distance learning because it impacts cognitive, affective and behavioral outcomes when compared to face-to-face learning. tertiary education had a statistically significant larger impact measure than K-12 education, (Ritzhaupt, 2022). Online instruction outcomes are influenced by the online preparation process with online guidelines. The satisfaction of online learning through modules and other online devices creates new experiences. Ideas recorded in online learning as evidence of student creativity in lectures. Students' ideas need to be followed up as a result of discussions that are relevant to the facts of the outside world. The effect of scientific discussion can motivate students to show the emergence of questions in subsequent discussions. Follow-up discussion is an indication that students have satisfaction and value focus on discussing material with the courage

to convey ideas. The habit of asking becomes the ability to think critically on relevant themes so that self-existence emerges on personal satisfaction.

Increased understanding of managing online learning resources has an impact on students' creative abilities. The Moodle application as an advanced means of online learning communication that is instructed in online learning in detail makes it easier for students and teachers in online communication to clarify online learning. Clearly structured online learning instructions make it easier for students to have a set of questions that are discussed in online learning. Research to discuss the questions device in the discussion was carried out during the discussion to stimulate students' creativity in asking questions during the pandemic. it means that discussions are still being carried out online so that the power of creativity is maintained in scientific value. The results of creativity in discussions are recorded in Moodle as evidence of the results of online lectures that involve students and are recorded online. Like offline learning which involves students in the direct discussion so that scientific critical value can be measured the purpose of this study is to describe the differences in the productivity of questions in online and offline learning at State Islamic Religious Institute at Ponorogo. Further research is suggested to discuss the relevance of the questions between the themes discussed and the uniqueness of the field facts.

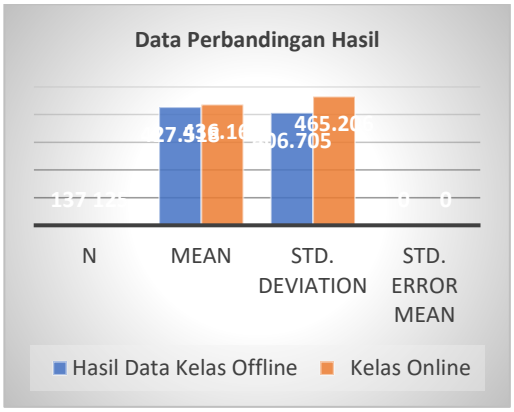
2. METHODS

This study uses a quantitative approach through documentation data collection techniques for lecturers who use e-learning (online) while questionnaire data collection techniques are used by students who use non-e-learning (offline) learning. Documents for students using e-learning can be seen from the number of questions in each subject that are recapitulated based on the number of teaching meetings in e-learning. Questionnaire data was distributed to 262 students who did both offline and online based on instruments developed on e-learning learning challenges, designs, and guidelines for using e-learning, evaluation benefits, cognitive understanding for students, student independence abilities, technology misuse, positive attitudes towards technology access, student engagement and student learning experience. Can be seen on offline document attachment via link https://docs.google.com/forms/d/104acCybQ2OMx4Tpce0J566AWc3AYHQ62Wz3TdWSYTCw/edit?usp=drivesdkdan dbpY/edit?usp=drivesdk. The results of the document recap for all students using e-learning while the recap of the lecture questionnaire that teaches online is based on student questions on the course and the number of online meetings. The t-test is used to analyze the differences in the productivity of online and offline learning questions through a gain score. That is the result of the difference in the average productivity of questions in online and offline learning

3. FINDINGS AND DISCUSSION

Post-pandemic online and offline learning been has carried out simultaneously because an activity under certain conditions depends on the learning agreement carried out. Opportunities for online or offline learning provide a variety of questions during discussions from are weighted or HOTS or C1. The results of this data will describe t results of the differences in the results of online and offline questions. In the comparison of data between offline and online, there is a difference in the spread of data. Question data in online learning is more varied because the standard deviation is greater than the mean, while the distribution of data for offline learning questions has low variation because the standard deviation is smaller than the mean value. This means that the distribution of data is less varied.

Results Comparison Data between Offline and Online classes



Based on the results of the questionnaire distributed in post-pandemic online and offline learning, they are as follows

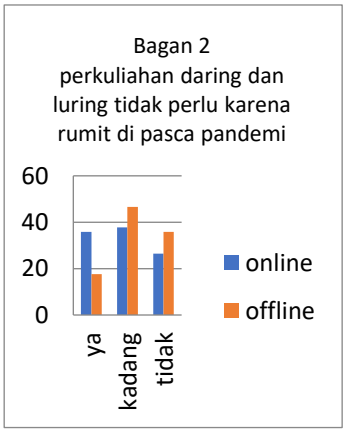
Statistik Result

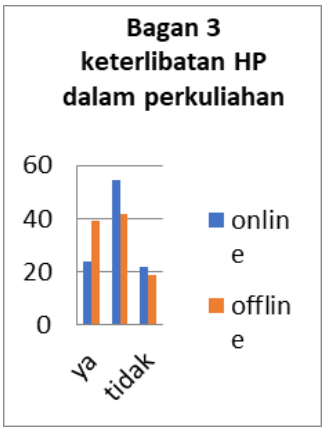
Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Hasil Data	Equal variances assumed	.136	.713	-1.604	260	.110	-.86418	.53878	-1.92510	.19675
	Equal variances not assumed			-1.594	247.504	.112	-.86418	.54210	-1.93189	.20354

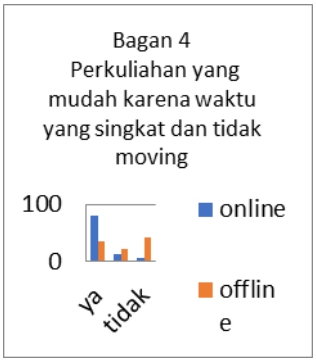
Variable in online and offline learning means that does not have mutual intervention between variable were homogeneous while indicated by a sig value greater than 5%. T-test result shows there is no differences the number of questions in online and offline learning at IAIN Ponorogo post-pandemic which it is observed through the result of the t score is smaller than the t table, score 1.604 <1.971, but the average differences between the productivity of online and offline learning is 0.3%.

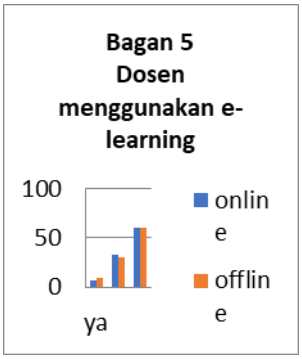
Data processing results show were no difference in the number of questions that arise in post-pandemic online and offline learning. And the questions in online and offline learning are no different. It's just that the average shows that the difference in the average question product for online learning was more higher on average than the number of questions in offline learning. Qualitative descriptive is use to explain there is no difference between the two online and offline learning processes.





The data can be analyzed through qualitative explanations because quantitative information will have further research information. Qualitative research explanations are based on instruments that students respond to through questionnaires. Chart 1 shows that the convenience of online lectures requires you to prepare more detailed lecture activities. 78% of respondents said offline convenience requires them to prepare for the lecture process, time preparation, and learning components in offline interactions make direct preparation. The response to the ease of preparation for online learning is 31.8%. These results indicate that the offline learning process does not need to be prepared to take into account the interaction of distance learning in different places, minimal direct interaction psychologically can reduce tension in process learning. Chart 2 shows that the response to online lectures is still 37.8% higher than the 19% offline response. In the post-pandemic period, it seems that online learning is still expected to be carried out because of certain considerations that it is easier to carry out learning activities. HP's involvement in online lectures forces us to share 23% with other activities. While offline, the level of involvement with other activities reaches 39%. Chart 3 shows that involving HP in online learning has a smaller presentation than offline learning





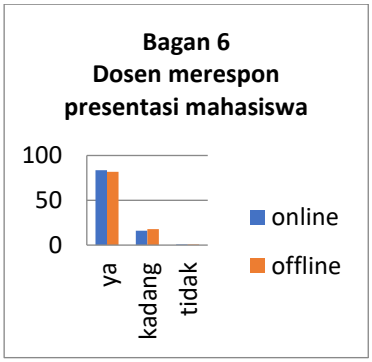
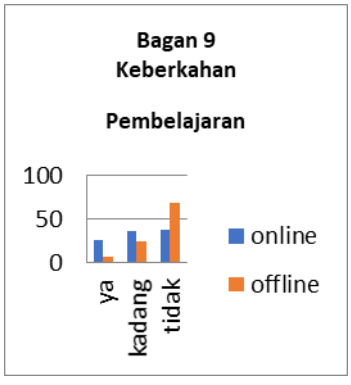
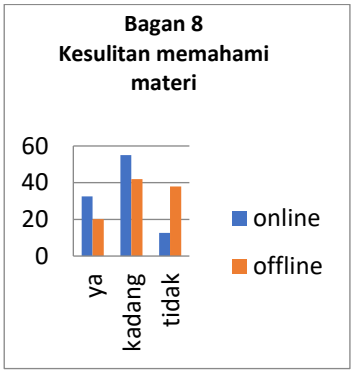


Chart 4 shows the ease of learning patterns that are low mobility does not need to involve wasted time in online learning at 80.1%, and score in offline learning it is only 36.7% because it really needs to move to carry out learning activities. All lecturers in online and offline learning involve e-learning applications. Chart 5 shows 6% of online learning activities and 10% of offline learning involved e learning. Chart 6 shows that the response is always made by lecturers when student presentations are the same with the same high percentage.





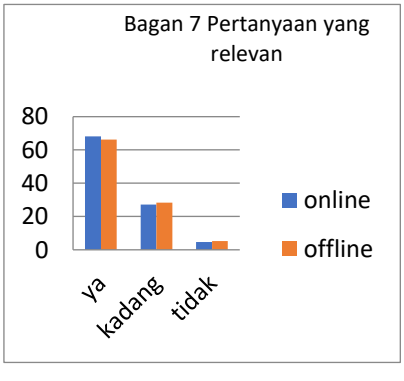
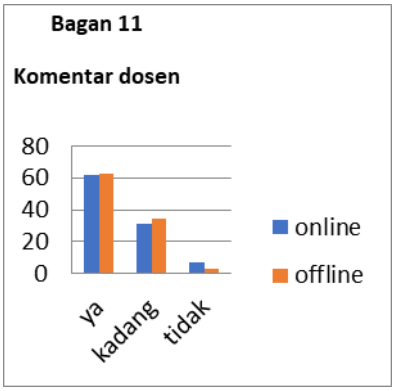
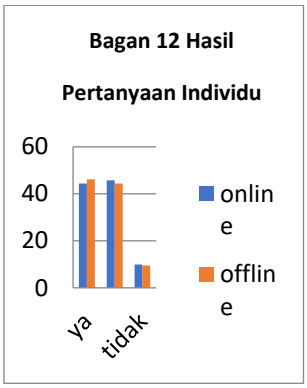


Chart 7 shows that in online and offline learning, lecturers provide responses on how making questions are relevant to the themes is discussed. Chart 8 explains the difficulty of understanding the material when online learning is at the 32% level while offline learning is at the 20% level. In chart 9,

about the blessings of online learning 25% feel unlucky with the process learning , while 7% of offline learning feel they were not get blessings after finishing learning.





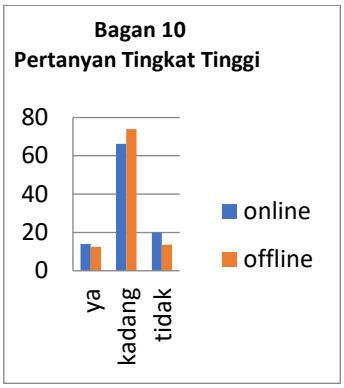
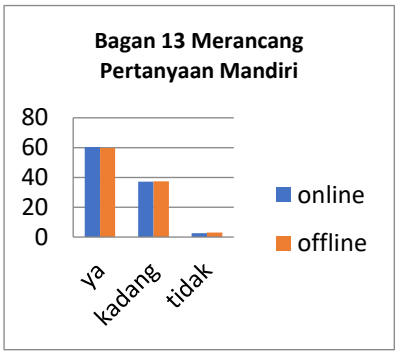
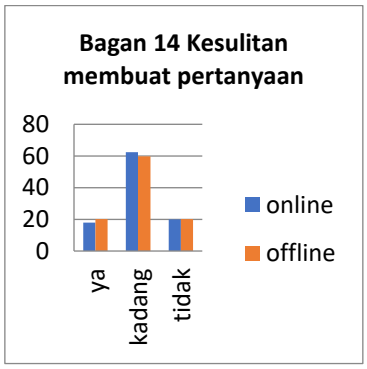


Chart 10 describes the weight of questions in online learning 13.9% in offline learning 12.4% respond to high-level question weights. Chart 11 shows the lecturer's comments about student questions in online learning are responded to by 61.2% in offline learning responded by 62.3 % commented by the supporting lecturer. Chart 12 shows the results of independent questions in online learning 64 % in offline learning independent results 46 % responded.





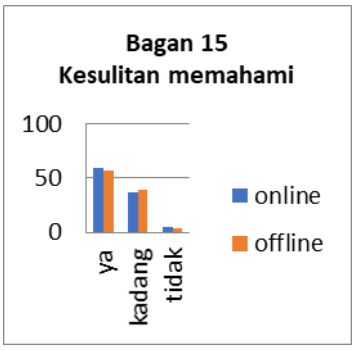
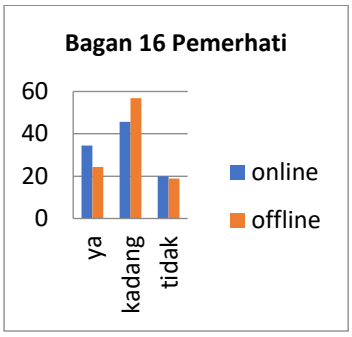
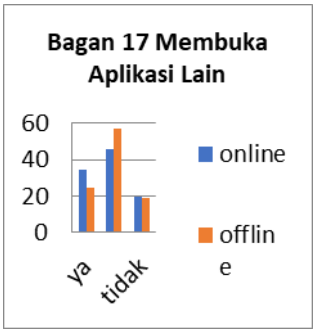


Chart 13 The process of designing questions is carried out independently in online learning to get a response of 60% while in offline learning 59.6% are in the process of designing questions independently. In chart 14 about the difficulty of designing

Chart 13 shows result 16.3% in online learning in designing independent learning while 58.9% in offline learning designing is independent questions, chart 14 shows online learning questions were responded to by 17.9% in online learning while in offline learning 20.1% responded. Chart 15 discusses the difficulty of understanding the material presented by the resource person in online learning followed by 58.9 %, the offline learning response was 56.8% having difficulty understanding the material presented by the resource person.





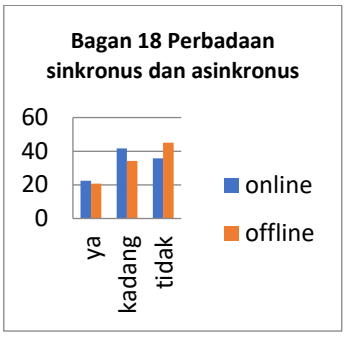
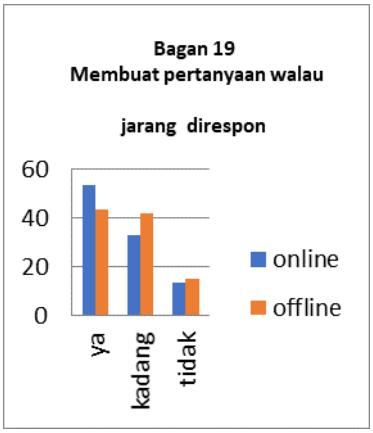


Chart 16 shows the tendency to pay attention to discussions only as observers, amounting to 34.4% in online learning while 24.3% in offline learning. Chart 17 I often open other applications that have nothing to do with my studies because I have to do it because I have to do online learning at 6.6%, while offline learning is 5.9%. Chart 18 Even though online learning is synchronous or asynchronous, there is no difference because I can already hear the voices of lecturers or friends presenting 22.5% while offline learning is 20.7%



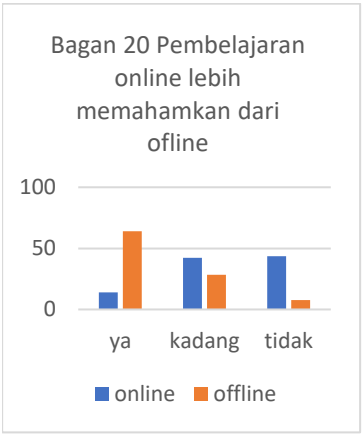


Chart 19 Including questions in online discussions proove that I have been actively involved in lectures even though questions are responde rarely. Chart 20 online learning is more understandable me and cheaper than non-online lectures.

The results of quantitative online and offline learning conditions show no difference in the number of question productivity. However, that is finding interested a description of the difference between the two data through the percentage values of the two variables so that conceptually it informs about the effect of the difference in the instrument. Qualitative descriptions are the findings of new data in this study to describe instrument differences.

The data results describes that easy online preparation better detailed than offline learning. Online learning process is still something to look forward to even though the pandemic is over. The findings regarding the offline learning process do not need preparation because taking in to account direct interaction can reduce tension in learning. It appears that habit of offline learning before the pandemic influences post-pandemic learning styles. A post-pandemic period still expects online learning, it shows that online convenience is starting to be felt by students, starting to get used to the ease of access to online learning. Affect can be continued as long as there is a shared commitment in the learning process. Understanding and easy management of online learning needs be discussed together as long as online learning has an instructional impact. The ability of students to share with other activities

during lectures as a new ability needs to exist accompaniment structured from the academic side that supports millennial learning competencies. Student-based learning orientation is not only the emergence of learning competencies involving media and facilities, but being able to design media as a learning effect not as a result. Emergence, prerequisite skills for future abilities is the opportunity for students to gain online learning experiences that are internalized in harmony with social life offline.

Internalization of social life is relevant to online learning patterns with low mobility that does not involve much time for physical movement. Physical involvement to be lazy to move is a new style, and easy digital access is slowly becoming a definite habit in achieving life goals. The tendency of online learning to be an option when laziness conditions arise with the consideration that online learning is an option rather than the lecture process not being carried out. Liking online learning is natural if online activities are as involved as offline learning preparation. An online learning process is more flexible for students to adapt to the possibility of mistakes being tolerated as long as we take online lectures and attend online. The discussion process was carried out both online and offline. The same discussion assistance online and offline results in different results in students' understanding of the material. In principle, mentoring in discussions is the same need be different techniques for online and offline mentoring through guidelines discussion. An online discussion technique can be obtained through existing scientific information and the lecturer designed his method of online mentoring. That is, online discussion assistance needs to find guidelines or technical foundations.

Students receive lecturer guidance when designing questions both offline and online so that students are able to face difficulties in understanding the material discussed. Assistance focuses on understanding the themes of difficulty encountered because a small number of students understand the difficulties faced. The lecturer explained about method make questions related to concepts, principles or facts of material issues that are relevant to current conditions. The concept of the problem being discussed should be directed to contextual relevance so that the discussion will explore the ability to criticize and offer initial level problem solving ability. This assistance is an offline learning where face-to-face explanations are considered clearer because of the interaction learning effect. This condition is felt differently in online learning where the mentoring process is considered low because the virtual world interaction process requires more intensive attention there needs to be an initial agreement in conducting discussions in online learning.

The weight of online learning questions is better than offline even though they have difficulty making questions so the number of questions is less. Technical constraints experienced by students in understanding the material from the resource person resulted in the lecturer's response to online learning not being optimal. The weight of the questions in offline learning is not very good, but the number of questions is large are no problems in designing questions so that the lecturer's comments respond more optimally to student questions. It means that online learning has experienced the ability to identify questions are worthy of discussion. Students can too select the types of questions that need to discussed in online learning, but this ability seems to be possessed by only a few students shown by the small number of questions online. Minimal lecturer responses depend on the number of questions that are answered a little and lecturers will only respond to themes that are student questions. The theme of the questions used as material for student discussion is a theme that attracts attention and requires an explain from the resource lecturer.

Online students are able to distinguish synchronous and asynchronous, namely direct online learning and indirect online learning. This understanding actually results in online learning behavior, namely opening other applications it have no relevance to the lecture process. The small number of online student questions is because learning attention is divided with other things that are more distracting attention during online learning. The real impact is the questions submitted by online students as evidence of attendance administration whose function is as observers. The minimal question productivity has an impact on the minimum response from the lecturer is minimal but the effect of better understanding and easier implementation felt by students. Therefore, in order to anticipate the impact of an unpredictable pandemic and have an impact on the learning process in

higher education, in future research, there is a need to continue exploring alternative learning environments to ensure the continuity of the student learning process that is effective , efficient, easy to access, and high -quality learning (RM Simamora :D De Fretes: ED Purba ,2020)

4. CONCLUSION

Based on the quantitative description analysis there is no difference in the productivity of discussion questions between online and offline learning from homogeneous data. The findings of qualitative descriptions in online and offline learning require intensive assistance provided by lecturers. Intensive assistance that pays attention to competency achievement, how to make questions according to the character of the material, the relevance of questions to the urgency of the real world, and the systematics of questions that are easily understood by all levels of student competence in class. The conditions for online and offline assistance, of course, must follow discussion techniques online and online, which can be carried out by the lecturer by referring to technical references for designing online and offline questions from other sources. Lecturers may designe systematic techniques that are implemented for students who are accompanied. Because of the clarity of the questions affects various answers and perceptions of students, it is necessary to explain detailed question descriptions to students through question keywords. Online and offline learning requires the ability to select relevant and urgent questions to be discussed and directed toward problem-solving efforts. There is the realization of 21st-century competence in critical thinking through critical questions. Recommendations for future research are research on assisting systematic techniques for designing questions in online learning. The implication of future research is to design online learning guidelines that are relevant to the needs of post-pandemic students.

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