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The Role of Technological Transformation in Supporting Research in Higher Education at the University of Syekh-Yusuf Tangerang

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ABSTRACT

Teaching in higher education is generally carried out by involving a series of methods and technologies for learning and research activities. Many studies have been conducted to examine and evaluate the role of technology and the achievement of learning outcomes in higher education. The article analyzed how the role of technological transformation with all its applications has supported research-based learning activities at Sheikh Yusuf University Tangerang. The method used descriptive qualitative design, and the literature review supports us. Through semi-structured interviews, the researchers obtained many data, then analyzed with a phenomenological approach. The researchers examined the data from interviews. Based on the analysis academic interview data, it can be concluded that the results including understanding the role of technological transformation with several applications that support research-based learning activities at the higher education level, have been carried out well at Sheikh Yusuf University, Tangerang. Thus, it is hoped that these brief findings can be used as supporting data for similar research in the future.

Keywords: *Role Technological Transformation, Supporting Research, Technological Transformation*

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INTRODUCTION

Since the emergence of information and communication technology in higher education, academic and work mindsets have transformed into increasingly innovative, efficient, and productive (Peeraer & Van Petegem, 2015; Putra, Mizani, et al., 2020), technology can be said to be a resource that has changed the face of learning that in the past only occurred separately. However, now it is integrated, and unlimited learning has occurred. This happens because technology is an opportunity for anyone to use any media source at any time (Livingstone, 2012). This technology has also integrated all learning materials, especially in higher education, to enable a large-scale transformation. These changes and innovations are part of the role of technology which is slowly easing the human role by providing all-digital activities and task automation that streamline human tasks in terms of presenting information and data and

reconstructing space for assignment changes (Bond et al., 2020). Technological transformation in universities includes changes in the academic culture to support the smooth running of research activities. In particular, the transformation of technology in education means digitizing the processes and products of educational services to improve the learning experience for all parties involved that focus on accelerating learning achievement through research activities (Dilmegani, 2022).

The world body in charge of world education UNESCO has stated that the presence of information and communication technology in the world of higher education is "to meet educational needs that have not been met (Edwards et al., 2018). On that basis, educational technology experts continue to develop close collaboration between all stakeholders in the world of higher education in the form of transformation and collaboration across functions, generations, and countries. In this regard, UNESCO continuously promotes technological progress and its application at the education level to develop knowledge through research and development by supporting many parties to innovate in Technology and Innovation, to develop policies of many countries, to reform the technology system in the world of higher education, they build capacity while encouraging innovative and participatory governance models in technology and education transformation decisions (Saltsman & Shelton, 2019). This is important because the key to successful adoption lies in the marriage between the wisdom of the past (knowledge literacy) and today's progress (technology literacy). This book is an anthology of articles compiled by the author to guide stakeholders in the world of higher education in understanding the phenomenon of the development of information technology in the field of education holistically and systemically. Hopefully, its existence can make a positive and significant contribution to the development of the world of education in our beloved homeland (Triroso et al., 2022).

Observing the UNESCO idea above, it can be understood that education must be implemented as well as possible to achieve the predetermined goals by utilizing the ease of educational technology (Grossman, 2017). Because the success of the implementation of this education determines the future of a nation, it is closely related to the ability of each country to invite stakeholders to be willing to make breakthroughs and actualize the achievements of their education results. If the quality of education is reasonable and supported by the convenience of technology, human resources will also increase. Educational institutions must carry out educational programs as well as possible so that the quality of education is advanced (Council et al., 2012). In order to carry out education as well as possible, it is necessary to have good institutional management. This management also affects the credibility of an educational institution. Educational institutions with good quality and accreditation can be ascertained to have well-organized education management resources. In education, digital technology is a tool to facilitate the teaching and learning process between teachers and students. Innovation in learning is growing with e-learning innovations that further facilitate the educational process. Teachers can create many ideas and broad ideas in teaching (Pavel et al., 2015).

Higher education institutions such as universities, academies, and other high schools apply educational management differently from secondary or primary education institutions because it is complex. Efficiency is needed in overall management so that management can run well and institutions can focus on implementing education. With its rapid development, technology can be used to support the management of higher education institutions. With the application of

technology in institutions, many roles and procedures can be replaced (Minh et al., 2014). The role of information and communication technology (ICT) in the management of higher education institutions is not only applied in administration, such as data storage and processing, but also other matters. It can be seen today that almost every higher education institution has a digital data warehouse as well as a digital library or e-library, which proves that information and communication technology is needed in the management of higher education in almost all fields (Sarkar, 2012).

Sulisworo (2012) states that there are five jobs of innovation connected with the most common way of coordinating and overseeing advanced education, including ICT to help functional and authoritative exercises; to help the emotional cycle; to help correspondence and communication between partners; to empower interaction and asset improvement; to lay out essential associations with outside parties (Dintoe, 2018). Data and correspondence innovation has been applied in the administration of advanced education in different ways and demonstrates how its application can emphatically affect. Universities usually make integrated programs that make it easier for employees, lecturers to students. Usually, this program is divided into management and educational systems (Ubogu & Orighofori, 2020). The development of information and communication technology has given many roles in education. Not only applied in direct learning but also the implementation of the management of educational institutions so that they can support the course of learning and lectures.

Hence, research in higher education is fundamental in creating information and the other way around because it will make it simpler to get data and work with correspondence between people, making learning more compelling and proficient and working with the conclusion of an issue. Mostly, information is depicted as a genuine suggestion in the singular's brain (Atamanyuk et al., 2021). It insinuates fundamental factors given authentic encounters and study disclosures by the human frontal cortex. This can be acquired through various means, such as figuring out books and articles, focusing on trained professionals, watching stories or scientific shows, driving coherent examinations, and partnering with others. The fundamental factors assembled during the exploration can be checked with various sources to ensure truth (Jones et al., 2013).

Technological transformation in higher education establishments advanced change, as a peculiarity, has become huge for all business areas. Albeit a few areas of business are more hopeful of computerized change commonly, it is these days challenging to track down an area that has stayed insusceptible to computerized change. It is also critical to stretch that this peculiarity is increasingly essential every day, authentically becoming fundamental for endurance, specifically in regions (Paul et al., 2017). Advanced education is no exception to that. Current advanced education foundations bounteously apply innovations to change their activities, from business process updates, to plan of action change. In any case, according to a worldwide viewpoint, advanced education foundations are not prepared to completely use innovations' conceivable outcomes. These organizations are, for the most part, offering assistance in formal schooling and, accordingly, are in rivalry with the foundations 9468 giving informal training. One model is the consistently developing e-learning market, which created more than 107 billion dollars in income in 2015; advanced education foundations have just a tiny portion of this market (Evans, 2013).

The progressive change of advanced education is pointed toward rethinking instructive administrations and items and redevelopment of available cycles. This

objective can be achieved utilizing one of the three methodologies. The first is administration first change, which depends on adjusting and reclassifying administrations (Altbach et al., 2019). This approach is centered around making new instructive results of a change of present into computerized ones. The second is activity first change, which pointed toward growing new and adjusting present computerized cycles, exercises, and tasks, as a reason for reclassifying advanced education administrations. The third administration activity coordinates past methodologies through authentic connection (Yuan & Powell, 2013).

Picking the second way to deal with progressive change in advanced education, we can zero in on business process updates (Odinokaya et al., 2019). Advanced education foundations' business processes at the top progressive level include the learning and showing process, the examination interaction, the empowering system, and the preparation and administration process. The accompanying segments of this paper are worried about the computerized change in the examination cycle. The third segment addresses a short outline of the exploration of higher education foundations, while the fourth is worried about the opportunities for acquainting novel advancements with this cycle (El-Hussein & Cronje, 2010).

The variable of computer ownership does not affect students' academic achievement. However, students' capabilities in the use and mastery of applications and research and writing methods have a positive effect on student's academic achievement, which is closely related to skills in research-based learning activities. Likewise, internet use has a positive effect on student's academic achievement; The use of technological transformation in lectures has an effect on student academic performance, and the ability of students to use writing applications and internet use has a significant effect on student academic achievement (Dean & Hubbell, 2012). In other words, the role of technology in learning can be divided into two roles, namely: (1) as a learning presentation media, for example, in the form of PowerPoint slides and animations with flash programs; (2) as an independent learning media or E-Learning, for example, students are given the task of reading or searching for sources from the internet, which ultimately makes students more independent according to the expectations of an independent curriculum. Various ideas for using machine learning, creating complex simulation processes, and animation processes that are difficult to explain are very interesting for students. In addition, technology with the application can also serve learning that is not constrained by place and time (İlhan, 2014).

Based on the identification of the core problems of this study, which aims to obtain some scientific evidence from the recognition of academics at the Sheikh Yusuf University, Tangerang, related to the role of technology in supporting educational research activities at the higher education level (Syed et al., 2021). In other words, we want to test and prove through interviews to hear voices and thoughts from academics significantly how technology can transform teaching, especially education-based research activities at universities, in line with the direction of the wishes of national policy, which requires that typical learning in higher education must involve based learning activities such as what is often done in universities where learning activities are no longer based on transferring knowledge than professors to students (Vickerman & Blundell, 2010). However, they deny students learning by utilizing technology, significantly strengthening research activities. On that basis, we interviewed eight academics and conducted observations at Sheikh Yusuf University, Tangerang.

METHOD

As mentioned above, this study aims to obtain critical input in understanding the role of technology and its transformation in supporting research-based learning activities at Sheikh Yusuf University, Tangerang. We used the semi-structured interview method to collect data, recording the voices of eight speakers and researchers (Ramohai, 2019). The reason we interviewed 8 participants was that we only got 8 participants who were willing to have their voices recorded and analyzed. With semi-structured interviews, we believe we have obtained data that will make the findings valid for this study following the study problem (de Freitas et al., 2015). In order to get an answer that will become a valid finding, we analyze the data under phenomenological engagement in the form of recording all conversations and analyzing them and extracting the core problem of this research; then, we analyze it well, and we arrange it by doing a little negotiation and data interpretation so that this meeting can reach valid data (Bond et al., 2018).

After a series of evaluations and justifications for the review method of several lecturers and researchers at the university concerned, we believe we have created a way to obtain information about how important technology is in transforming learning activities in particular (Nurhasan et al., 2020). We designed this study report in a qualitative descriptive form because we wanted to understand the role of technology in the transformation of research-based learning, which is currently the right strategy or method that universities can serve with their research approach will become an established identity adapting to the academic culture of Western countries. Thus the stages of problem identification and then searching for data through interviews, we analyze and report the results (D'Ambra et al., 2022).

RESULT AND DISCUSSION

This results section will report interviews to understand how technology transforms at Sheikh Yusuf University Tangerang to increase education-based research activities. As is understood, in typical learning in the era of technological transformation, teaching methods are not only done face to face, where lecturers teach content to students, but current learning prioritizes learning technology transformation to gain knowledge and expertise. In other words, they are using technology to improve learning activities by optimizing the components of research-based education and teaching so that students will become independent individuals who can personalize their learning autonomously (Kop, 2011). In other words, students can use research skills to gain knowledge independently without ignoring the support or supervision of their lecturer.

Research role in academic culture

The first question we ask is, what is the role of research in the academic culture at Sheikh Yusuf University, Tangerang?

> *We can say that technology, especially in the field of learning in our place, has an extensive role, including quite some roles that previously had to be carried out by teachers. However, the presence of this technology with all its applications has helped tasks from teaching to evaluation. So the role here is to strengthen in terms of presenting information for educational tasks by restructuring and transforming many tasks, both lecturers and students; thus, technology is very reliable (Participant#1).*

After asking about the general role of technology in learning activities at Sheikh Yusuf's university, Tangerang, we then asked how is the relationship between

technology and knowledge development at the universities they manage in terms of the relationship between technology and research-based learning activities.

> *The relationship between technology and knowledge development is where technology is present to facilitate work; in this case, all academic activities at our place are developing knowledge transfer to gain new skills with this knowledge, and skills this academic activity able to solve problems with systems used in academics or the scientific arena by using specific methods owned by technology applications which in the end we will get used to the work pattern of technology to product innovation to find something useful for the scientific development of each department in the field this university manage information and evaluate information (participant#2).*

We can understand that some participants agree with the answers given by the first participant that the role of technology, in particular In teaching and other activities, has helped the tasks of both lecturers and students where the ability of this technology can do many things such as restructuring and transformation of many tasks related to how information and data management is related to academic tasks and activities at Sheikh Yusuf University, Tangerang. Hence, as we understand above, it is true that technological capabilities have been able to change and provide innovation in the context of transforming educational tasks in sharks.

Technological use in academic research

Based on the recognition of academics at Sheikh Yusuf University, Tangerang, that the technology here has shown the proper use, especially in supporting research activities in the learning process, we want to get what contribution the university has given by adapting technology in accelerating research.

> *Indeed, research activities today are greatly assisted by the existence of technology, where recent learning advances have shown an increase; where the academic culture before the advent of technology still revolved around Face to Face learning, but since the advent of technology, universities have been able to do research a vital component making it possible a beneficial educational experience for both lecturers and students because the existence of technology provides an opportunity for them to explore and apply existing concepts and thoughts. Then they are tested through a technological proof point; in other words, academics can use this learning experience with technology to see to what extent the effectiveness of technology-supported learning, especially in research-based learning, which was previously very challenging but is now an opportunity to participate in various educational experiences can happen on our campus (partcipant#3).*

We can understand here that today's research activities do not only take place in non-teaching research projects, but with today's very innovative technology and applications, it is also possible for academics to conduct research-based learning where the convenience of having technology has changed the academic culture technology is still seen as something that has minimal use outside of academic activities, but in the current era technology at the University of Sheikh Yusuf, Tangerang is an essential component in supporting learning activities. So, in other words, the existence of technology that can transform the same tasks of students and lecturers that involve components so that learning occurs is beneficial to all parties because technology allows the academic community to explore to improve the achievement of academic tasks by supporting previous learning activities.

Next, we are interested in knowing why research-based learning associated with technology is one of the activities favored by students and lecturers at this cutting.

> *It is true that our students are interested in learning-based research activities because today, technology has provided many solutions, among others, with the availability of student technology readily in terms of searching data and literature and then developing research manuscripts as well as students now like to collaborate collectively and in this way. They are accessible compared to how they study on their own, among others, with the directions given to lecturers on how to maximize the use of technology to support research-based learning activities. Access to various types of research at these other universities with a note that technology does not limit having to carry out research in their place, but they can access various information elsewhere. Moreover finally, this is what makes them motivated because today's technology not only provides convenience for the world of work but also for academic tasks, especially in the final stage (Participant#4).*

Based on the answers above about why students prefer research-based learning activities, the answers were given by academics that since the presence of technology where with all existing applications it makes it easier for students to search data, analyze and develop their research reports so that this allows collaboration between fellow students even though it is a different campus. So this has encouraged Baitul student academics to optimize the use of technology to support learning activities even though it is research-based. This method may have never happened before because the cruising of technology gives access to all sources and is not limited by time and place.

Technological application and pandemic response

We and the world of universities have just gone through difficult times where the shock of the land pandemic impacts learning activities in general. Can we explain the benefits of learning technology in response to the COVID-19 pandemic?

> *Especially the use of technology in completing student assignments remotely, in line with the government's policy of closing lectures and opening classes, has also accelerated the shift from distance learning. However, the impact here is not all harmful. Alternatively, maintenance running remotely; in other words, the pandemic not only brings problems but also brings changes, especially in the field of education; the services are forced to adapt, but we see the benefit side is that our research and education activities are not disrupted, this is none other than the innovation provided by technology. Able to transform the way of learning innovatively so that it does not want to find obstacles; in other words, technology has contributed to the acceleration of physical construction, namely and with multimedia concepts with accelerated learning and improvement of learning outcomes (participant#5).*

We conclude that technology is not only done for direct learning but experience since responding to the policy of closing schools and opening online. Yes, this can be after using this technology to accelerate learning, especially research activities that can be done remotely.

Technology and research learning based.

After observing for a while and listening to the voices of all of us, we are also interested in knowing what breakthroughs have provided a new vehicle for academic activity in terms of research-based learning. What are the reasons behind technology-based learning steps to strengthen research?

> *Well, the application of learning is supported by technology to strengthen research-based learning activities. Therefore, we believe that it is very educational for our students because individually and in groups later, they will open their minds to new possibilities where each alumni entering the world of work they are faced with. on the use of research skills for the world of work because research is not only limited to projects but every action to solve this problem intellectually we believe is a skill that our community must have when they graduate from college. Because we also believe that research has an impact not only when they are in college but when they enter the career world so that it cannot be separated from how to become workers with skills that continue to develop (participant#6).*

Therefore, based on the answers above, we have seen that the research component at the Sheikh Yusuf University, Tangerang, has provided an extensive educational experience where students with their technological skills can gain the ability to conduct research in terms of its objectives, not only when they are still students, but also they enter the world of work. This is very reasonable because investment believes that skills in research science will undoubtedly be beneficial when they go into the field faced with problems and look for solutions; then, research activities are also an important component.

What is the background of this technology-based learning and research policy at Yusuf University, Tangerang? What beliefs have been behind the implementation of this *policy?*

> *First, as understood in the academic world, especially in universities where lecturers and students also commit to providing facilities to give birth and build new knowledge, we also believe that research is not only limited to academic work, which will later be forgotten when they have This plunge into the professional world is what we consider very important that later when they have entered the world of work, but will also be charged with problems that must involve research activities where skills in this technology-based research component will accelerate the construction of new knowledge for both the community itself and the community – professionals when they enter the world of work (participant#7).*

Based on the information given above, we can take the understanding that knowledge can be constructed as a tangible result in the thinking of each investment based on the fact that researcher activities are needed to discover something new. So the reason for creating new knowledge is what lies behind how research activities in the academic world are highly encouraged, especially in this era where technology is currently being used in various sectors of life so that later it will become a source of information and also construct new knowledge and skills that are more accurate than before.

The next question that we will do is how prepared students are to participate in research-based learning in an era where technology has become the core of every activity, especially learning activities in universities.

> *The obstacles students and lecturers face when the university implements technology-based learning for reinforcement can be mentioned. The university is aware of the obstacles to implementing technology in education, especially in our research activities. The first obstacle is human resources, where not all teaching staff at this university can use technology for all needs professionally in their respective fields. Often not standardized when applied to technology, there will be disharmony between the*

> *curriculum objectives and the technology itself. Next, we realize that hardware is very new to us; once they are, we try to present it from outside for knowledge and experience transfer as well as funding possible here; we know that technology is constantly changing, so we have to adapt, so it requires a large number of funds then the limitations of other facilities so that it makes comfortable in carrying out technology-based learning. That is to be an obstacle that the photos require concern from the university to provide solutions so that we can solve the marketing separately (participant#8).*

Based on the answers above, where are the obstacles rather than investments? Among others, universities have limited human resources then, how to align the curriculum with the technological reality that is demanded then hardware is software rights that continue to occur innovation and renewal which requires campus readiness to explain in the end the campus also has funds for that so that it becomes a limitation and all of that becomes an obstacle that we must find a solution.

Through interviews with eight teaching staff and researchers, we have received input through voice recordings and their views regarding the role of technology in supporting research activities, especially early blessings. Similar findings were also reported where technology and research activities could not be separated in higher education (Sailer et al., 2021). Through these interviews, we have collected several data that we have studied in phenomenological approaches; among others, we have gained a role in academic culture at Sheikh Yusuf University, Tangerang; Among other things, that the role of technology there has indeed become a culture, especially in the use of technology to support learning activities based on the use of research-based learning, so the role of technology has strengthened the implementation of based learning where technology is seen as a tool capable of handling information and communication.

Sanberg et al. (2014) state that the transformation of technology can provide convenience for academic creativity in the form of lecturers and students using technology to solve their problems (Flavin, 2016). In other words, the role of technology has indeed innovated academic ways, especially regarding researcher-based learning. Likewise, we note that at Sheikh Yusuf University Tangerang, campus leaders have made technology-based learning and adopted it into research so that the presence of technology can facilitate work and provide the development of new knowledge.

A similar report was also carried out by Bonney et al. (2016), where academic activities through the use of technology could solve problems so that with this application activity, they could create new experiences and understandings of science that continue to develop. In another part, we also see how the use of technology in the academic research environment, so based on their answers, research activities today help with the presence of technology (Lakoma, 2018). This has become a culture in the academic community compared to before, namely, Face to Face learning, but now that technology is present, learning, especially research activities, provides more opportunities. Its existence is proven to be able to innovate and transform academic activities.

Furthermore, in another section, we see that research-based learning linked to this technology is a way of activity that is very popular with students and also producers because research-based learning, in terms of the existence of this technology, provides a new nuance where students can collaborate with students and can also access various information that is in other places (Kivunja, 2015). So that it maximizes

technology to support learning; these ways motivate innovation so that students can achieve optimal levels of success in learning. When viewed from the application of technology and responding to the pandemic, it is indeed at the University of Sheikh Yusuf, Tangerang. As in other places where there has been a pandemic response, namely government policy, but because technology and its applications have become the daily life of this university when closing Face to Face and continuing with distance classes, it does not pose much of a problem because they are used to using technology for completing tasks and also for transforming innovative learning that is possible during Face to Face learning, technology learning is not as fast as during the pandemic response, where the challenge of responding to a pandemic does not only have an impact, will also provide benefits by accelerating the use of technology in all solutions to college problems.

Likewise, we see that technology and research-based learning cannot be separated, considering that with the scope of innovation, technology allows learners such as lecturers and students to strengthen their research activities. For such learning, the incorporation of technology was also reported by Widjaja & Aslan (2022). In other words, technology is very applicable; where all over the world, students carry out research assisted by technology so that acceleration and problems and solutions can be done collaboratively, which means that they provide each other with opportunities and opportunities to work together because technology is a lecture not limited to academic collaboration, from one place to another (Car et al., 2019).

Likewise, we note how the university prepares students for what obstacles they face, the answers given by the campus are indeed producers, and students experience problems where the application of technology is indeed something that keeps changing so that universities are constrained (Ahmad, 2019). In terms of procuring new infrastructure and then human resources that must continue to be mobilized and then the procurement of technological tools that continue to change, the campus does not experience difficulties responding to any changes quickly due to funding constraints (Nurhasan et al., 2020). It is indeed a solution for every university when it wants to hone its academic potential in the technology field with competitive learning outputs in the context of research-based learning. Thus, technology has played a very constructive and transformative role in supporting implementing of research-based learning activities at universities, especially in the tall tree of Sheikh Yusuf Mansur Tangerang (van der Rijst, 2017).

Various transformation technology solutions have contributed to teaching and learning in universities. However, apart from being able to share significant benefits in the field of other education, the technological transformation has the main areas that can be of great benefit are: collaborations and partnerships between higher education institutions; various higher education institutions have been connected as safe and reliable drivers of extensive research activities to record student academic achievement. Increase student achievement and improve their skills, and their various learning outcomes are research-based. How can technological transformation be used to facilitate cooperation and partnerships between educational institutions in scientific studies? Future research will investigate this. Record and share the student's academic information; using the bright Contract will allow higher education institutions to do so, such as academic improvement, description of the study program, and improvement of other academic skills.

Thus, among others, the report and discussion of the results of our interview study, which we designed in qualitative descriptive where the result is the role of

technology in supporting academic research activities in higher education, especially the Sheikh Yusuf University, Tangerang. We realize that this finding certainly has weaknesses and shortcomings, and there are also many things we cannot answer. Therefore we need feedback and solutions to improve this study in the future.

We suggest that it is time for every university in Indonesia to make research-based research skills a part of technological transformation, an effort to be even better at maximizing and streamlining research and research acumen by conducting tests based on the technological transformation agenda in the modern learning era. We hope that the academic community in Indonesia will implement things that have been tested so that the crisis of low achievement at many universities can be resolved slowly. It is hoped that the Ministry and the directorate of higher education will increase the content of the research-based teaching curriculum with technological transformation in each university because there are still many universities using conventional methods as media and teaching solutions in the technology era. So this does not maximize efforts to improve student learning outcomes.

The limited information collected from interviews makes the data we obtain very little and less attractive if a written report is formed. Interviews take a lot of time and money. Another weakness is that interviews require a lot of time and effort from both the researcher and the respondent. The success of the interview process depends on the researcher's intelligence in gathering the required information. The respondent can influence the researcher's interpretation, which is not objective. During the interview, the respondent must be able to speak clearly and correctly. The adequacy of the data obtained is highly dependent on the willingness of the respondents to answer the questions posed. For a broad object, a large number of interviewers are needed. These are the shortcomings and limitations of the semi-structured interview method used in this study.

CONCLUSION

Finally, we can conclude the final result of a qualitative study that wants to get an answer to the title of the discussion on understanding the transformation of technology in supporting research-based teaching activities at Sheikh Yusuf University, Tangerang. Through a series of semi-tracer interviews, we have received several inputs from lecturers and researchers who actively empower students with various technology applications to improve educational research-based learning outcomes. As for the results, among others, lecturers and university leaders have implemented research-based learning supported by various technology applications. Academics in many faculties at Sheikh Yusuf University Tangerang believe that technology has transformed learning from traditional learning approaches to technology applications. Initially, efforts to apply technology for various educational purposes and research were complex. However, various efforts have been made, such as guiding students with effective technology application strategies used by students to complete assignments and also evaluating learning outcomes. Learning has provided a change from the manual way of data organization that is entirely automated, such as searching for data evaluation literature and communicating research results. This includes, among others, the final report of a series of qualitative studies using semi-structured interview data sources for several lecturers and researchers at the Sheikh Yusuf University, Tangerang. We realize that this result certainly has weaknesses and limitations, considering that both the participation of data sources and research locations are lacking. Therefore, we hope for various

feedback and improvements to improve the quality of similar study topics in the future.

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AUTHOR CONTRIBUTION STATEMENT

A share author did this project. All participants have contributed their expertise accordingly. Therefore, we have no such conflicted issue.

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