

LECTURER RESEARCH COMPETENCE IN IMPROVING LECTURER SCIENTIFIC PUBLICATION PERFORMANCE IN LITERATURE REVIEW

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Abstract

This study stems from the researcher's desire to identify lecturers' research competencies in improving scientific publication performance in the digital era. Research is one of the actualizations of the Tri Dharma of Higher Education within the framework of the world of education. In other words, the findings in this study will serve as a reference for lecturers' research competencies as professional educators and scientists in generating new knowledge through scientific research activities. Research activities require considerable time spent in the field collecting research data, which is one reason why lecturers are not bound by office or company operating hours. Lecturers are required to be role models in interacting with both the academic community and the general public in order to create exemplary attitudes and behaviors in accordance with Indonesian religious, cultural, and social values.

Key words: Competence; LecturerPerformance; Literature Review

1. INTRODUCTION

This study stems from the researcher's desire to identify lecturers' research competencies in improving scientific publication performance in the digital era. Research is one of the actualizations of the Tri Dharma of Higher Education within the framework of the world of education. In other words, the findings in this study will serve as a reference for lecturers' research competencies as professional educators and scientists in generating new knowledge through scientific research activities. Competence is defined as a cognitive domain consisting of a combination of knowledge, skills, attitudes, and behaviors possessed by a person in carrying out their duties to achieve work quality standards (Soro et al., 2023) competence according to (Indajang et al., 2021) is the condition or quality of being competent.

The term competence is no longer unfamiliar in the world of education. This is because every professional educator certainly possesses competence, proven by a competency certificate. Therefore, it is understandable that competence plays a crucial role in achieving predetermined or planned goals. Research is a conscious activity undertaken by researchers to discover or generate new facts (new knowledge, refuting or strengthening old findings) in a systematic and scientifically accountable manner. This conscious activity refers to the activity being carried out deliberately, guided by the rules and ethics of research in a systematic manner. In other words, research is defined as an inquiry process carried out actively, systematically, procedurally, consistently, with commitment, and responsibly towards data collection activities in the field in accordance with the formulated research objectives. The existence of scientific research is a challenge and an art in itself for researchers as a scientific community, because scientific research aims to discover, identify, describe, and interpret facts or data obtained in the field through specific methods. Disclosure of research results (public opinions) is part of academic freedom and human rights guaranteed in Article 28 of the 1945 Constitution of the Republic of Indonesia. This is intended so that every researcher is expected to have creativity and

productivity (writing) so as to contribute positively to the development of human life(Author et al., 2017)(Widyaiswara Ahli Madya, 2020).

Lecturers are professional educators and scientists with the primary task of transforming, developing, and disseminating science, technology, and the arts through education, research, and community service (Law of the Republic of Indonesia No. 14 of 2005)(Fajrizal et al., 2022). Lecturers work in specific higher education institutions. The term "academic community" is used by universities to differentiate them from other communities. Lecturers, as professional educators and scientists, have a positive contribution to advancing human civilization. This can be proven by the advancement of human living standards (knowledge and civilization), and this is the result of the educational process in which lecturers are involved in transforming science. Scientific publications are a forum for disseminating information in the form of scientific study results through research methods and can be academically accounted for. The existence of scientific publications contributes positively to the development of science. In this context, scientific publications through journals (whether accredited or not) and books with ISBNs can be read by the general public(Qurtubi, 2023). Along with the development of science and technology, scientific publications can be done manually (print) or digitally (online). However, the reality on the ground shows that some lecturers lack commitment to conducting scientific research, which impacts their productivity as scientists. Yet, we know that lecturers are required to demonstrate their thinking through written works (journals or books)(Rizaldi et al., 2020).

A researcher's competence in conducting scientific research activities relies on his or her competence. In other words, researchers dare to conduct research activities because they have adequate research competence and can be scientifically accounted for. Competence as a collaboration between the cognitive, affective, and psychomotor domains is possessed by a person to carry out a job appropriately and correctly and can be accounted for academically and socially. (Rachman et al., 2022) explain that competence is an ability to carry out or perform a job or task based on skills and knowledge and supported by the work attitude required by the job. Competence is a combination of knowledge, skills, attitudes, and behaviors that a person must have in carrying out their duties in order to achieve the quality standards of their work. In other words, the knowledge a person possesses is actualized in real life and can be accounted for in terms of truth and usefulness for both themselves and their environment. Therefore, competence is oriented towards the theoretical knowledge a person possesses as a provision for maintaining their survival(Polnaya et al., 2018).

Research Research in English is called research. This word consists of two vocabulary words, namely 're' and 'search'. Re means (back) and search (to look for). So the term research can be interpreted as "looking again", namely looking for new facts or new knowledge to be developed into a new discovery or new theory to be deepened and expanded so that it can benefit humans in their lives(Dr. Greener & Dr. Martelli, 2008). (Andrade, 2019) defines research as a scientific method of obtaining data for specific purposes and uses. Research activities are carried out with alternative and ethical approaches. This is in line with the definition of research by (Downs, 1990)who state that research is conceptualized within the dominant discourse and offers the possibility of alternative approaches, informed by different epistemological and ethical understandings. Meanwhile, (Dr. Sandu Siyoto, SKM, M.Kes, M. Ali Sodik, 2015)defines research as a scientific activity based on analysis and construction carried out systematically, methodologically and consistently and aims to reveal the truth as one manifestation of the human desire to know what is being faced. Research is a conscious activity carried out by an individual

or group of people involving cognitive, systematic, scientific, ethical, and procedural domains to discover new facts or prove these facts using correct and appropriate data collection methods so that the research findings can be scientifically accounted for (Suharyanto H. Soro, 2023). The results of scientific research conducted by an individual or group of people are open to development and deepening so as to create continuity of scientific knowledge. A research is born due to the desire of an individual or group of people to understand something or an event they face in real life. A simple example, to determine a person's level of proficiency in mathematics, a math test is conducted. If the person gets the maximum score, research is conducted. One of the objects or targets of research is their learning activities. How many hours a day is spent studying, study time, who teaches them, where they study, and the learning facilities.

Researchers must use appropriate methods to obtain research data. The results of this analysis based on field data are constructed into a theory. This theory becomes knowledge to be used as a guide or by someone who wants to be smart in mathematics. Therefore, it is understandable that scientific research activities certainly begin with a strong intention and awareness of the risks that will be accepted, starting from planning, implementation, and scientific publication, whether in the form of a Sinta journal or a book with an ISBN. The results of this research are concrete evidence of the fruit of a lecturer's thinking (as a harvest). Basically, humans have curiosity about something, whether abstract (ghostly) or concrete. In the world of research, a clear object of research must be defined, namely a real event that occurred and/or a problem faced by humans themselves. In other words, the object of research must be accountable for its validity and acceptable to human common sense. Being a researcher is a gift from God because it contributes positively to humanity and its environment.

Research activities require someone to meet scientific requirements. Therefore, a researcher must have at least initial knowledge of the characteristics of research. In the world of research, there are four elements or characteristics that researchers need to know. These four characteristics of research are systematic, logical, empirical, and replicative. In addition, scientific researchers are required to have an honest and objective attitude towards their research activities. (Dr. Sandu Siyoto, SKM, M.Kes, M. Ali Sodik, 2015) in the book "Basics of Research Methodology" (2015) quoted <https://t.me/kompascomupdate>. state that a researcher must have three attitudes, namely objective, competent, and factual. Lecturer Law of the Republic of Indonesia No. 14 of 2005 states that lecturers are professional educators and scientists with the main task of transforming, developing, and disseminating science, technology, and art through education, research, and community service.

Lecturers are instructors of students both in the world of higher education, campuses, universities or colleges and equivalent levels of education. (Rusmini, 2021) [academik indonesia.com](https://www.academikindonesia.com). The 2018 Ministerial Regulation No. 51 of 2018 states that a lecturer is required to hold a minimum of 12 credits and a maximum of 16 credits per semester (<https://usd.ac.id>). This includes education and teaching, research, and community service. This ensures that lecturers' competencies are continually honed, accustomed, and enhanced. This is due to the diverse sources of learning experiences, ranging from face-to-face lectures in the classroom to conducting research by observing phenomena or events in the field, which is considered an element of direct observation and actualize knowledge as concrete evidence of community service (Thu Nhung, 2018).

Scientific Publications in the Digital Era Scientific publications are evidence of a lecturer's thoughts, documented in both print and electronic form, and can be used as a reference for others

in developing their findings or theories. Scientific publications can be carried out by following the rules or regulations applicable to journal managers and publishers. Each journal and publisher has different standards. In this context, nationally accredited journals (Sinta 1 and 2) must have an element of novelty. The digital era is a period that has progressed from the previous era. Simply put, the digital era is defined as the era of the use of internet technology through various applications or programs aimed at providing convenience in various human life activities. In other words, the digital era is a condition of life or an era in which all activities that support life have been made easier by technology. This term can also be interpreted as the emergence of digital technology replacing previous technologies (analog mechanics and electronics) by humans (Srikaningsih et al., 2019).

Therefore, the digital era is an era where everything uses technology. The presence of digital technology brings both positive and negative impacts (Net, 2023). Positive impacts refer to the ease and simplicity of various activities or the transformation of communication between people. The presence of this digital era has made the world limitless. Lecturers as professional scientists certainly utilize this technology to be more productive in writing articles and books. Meanwhile, the negative impacts refer to (1) The existence of copyright or Intellectual Property Rights violations; (2) Low availability of employment opportunities because human resources have been replaced by digital technology; (3) The emergence of digital information that does not correspond to the facts (hoax); (4) The existence of a culture of laziness (mager) due to the influence of the use of digital technology; (5) The existence of digital fraud in the name of others.

2. METHOD

The researcher used a case study approach. (Etikan, 2017) states that case studies are a qualitative strategy in which the researcher explores in-depth a program, event, activity, process, or one or more individuals. The case(s) are bound by time and activity, and researchers collect detailed information using a variety of data collection procedures over a sustained period of time. Based on Creswell's explanation, it can be understood that the case study approach is a scientific research approach that emphasizes a deeper understanding of a problem. Next, the researcher determines the method used to obtain data according to the research objectives. A method is simply defined as the means used by researchers to obtain data in the field. Within the qualitative research paradigm, three methods are frequently used by researchers: observation, interviews, and documentation.

Therefore, it can be said that the data in this study are oral and written data sourced from an academic setting (Taherdoost, 2018). Viewed from a dominant social perspective, this data falls within the academic and technology domains. The sample or object of study was selected based on purposive sampling. The methods used to obtain data were observation, interviews, documentation, and questionnaires with lecturers who hold doctoral degrees and academic positions as lecturers. Observation in the context of this study was non-participatory observation. Furthermore, an in-depth interview method was used to gather information through face-to-face interviews until saturation was achieved. The researcher also used a questionnaire as a research instrument. This was done to ensure and establish that the data obtained were valid and credible.

The final method was documentation, which referred to diaries, life histories, biographies, regulations and policies, and scientific works in the form of journals and books. The selected samples became data sources. If the data was abundant, the researcher categorized them so that they were used as primary data in this study. From these samples, the researcher outlined things

that could be interpreted according to the objectives of this study. The number of samples in this study was 25 lecturers spread across the province of West Java, Indonesia. To expedite and simplify data analysis, the researcher categorized. In other words, the data obtained through observation, interviews, documentation, and questionnaires were then coded and categorized. In this context, the researcher used the data analysis technique of the Miles and Huberman model in (Sugiyono, 2018), namely data reduction, data display, and data verification. The data collected/obtained from the field is then checked for validity. This stage is considered crucial because it concerns validity and reliability. Four criteria are used: credibility, transferability, dependability, and confirmability (Dr. Sandu Siyoto, SKM, M.Kes, M. Ali Sodik, 2015).

3. RESULTS AND DISCUSSION

In general, lecturers have knowledge and understanding of qualitative and quantitative research paradigms, as well as experience in conducting scientific research. This refers to experience in supervising students' theses, dissertations, and dissertations as one of the requirements for obtaining an academic degree. When a student completes a final project (thesis), they are required to conduct field research and are supervised by two thesis supervisors. Continuing education at the postgraduate level certainly differs from the learning process at the undergraduate level. Postgraduate students (S2) are given research-related assignments in addition to research methods courses, research proposal seminars, and the thesis itself as the final assignment for a master's degree. This thesis research is supervised by two supervisors with at least a doctorate. The doctoral level (S3) certainly focuses more on deepening understanding of scientific research activities, so it is not unusual for each course lecturer to require a mini-research project to be presented in a class discussion.

This aims to develop a habit of conducting research activities, including training in writing a dissertation as one of the final assignment requirements for obtaining a doctoral academic degree. Students conducting dissertation research are supervised by three supervisors (promoter, co-promoter, and member). Based on the activities described above, it is clear that lecturers possess extensive academic experience, making it a routine activity to guide students' final assignments. Lecturers conduct research because it is their duty. If lecturers do not have scientific publications, will we still be called lecturers? The data above shows that lecturers are aware of being called professional educators and scientists. They (lecturers) have a moral responsibility to fulfill one of their obligations: conducting research and publishing the results in journals, whether Scopis, Sinta, or other journals, accessible for everyone to read. The law on teachers and lecturers states that lecturers are professional educators and scientists. Teachers are referred to as professional educators because their activities focus on the learning process.

Therefore, a teacher is required to have pedagogical competence, professional competence, personality competence, and social competence. What about lecturers? Of course, it is different because lecturers have an obligation to carry out the three pillars of higher education, namely conducting learning on campus, conducting research, and engaging in community service. Therefore, based on data analysis, the researcher formulated that a lecturer must have six competencies, namely pedagogical, professional, social, personality, research, and community service.

- a. Pedagogical competence refers to the knowledge or skills possessed by lecturers regarding learning management both in the classroom and in the field, understanding the existence of students as learners, and having the ability to evaluate the results of lectures in the form of academic settings.

- b. Professional competence refers to learning activities or lectures (lecturing) carried out by lecturers based on expertise so that the work results are effective and efficient.
- c. Social competence refers to the pattern of interaction between lecturers and the academic community, parents of students, and the community so that a nuance of positive social values is created.
- d. Personality competence refers to the appearance (performance) of lecturers based on religious norms, laws, and cultural norms both local, national and international so as to become role models.
- e. Research competence refers to scientific activities carried out systematically, objectively, factually, and usefully so as to produce new findings or new theories (science) to be actualized in human life.
- f. Community service competence refers to self-actualization in order to disseminate useful knowledge to the general public so that it can change the mindset and behavior that was initially still static into positive progress.

Lecturers spend more time outside of campus, considering the Tri Dharma of Higher Education. It's strange if a lecturer arrives at campus every day at 8 a.m. and returns home at 4 p.m. Lecturers spend more time in the field. Therefore, it's appropriate and correct to call lecturers neither office workers nor company employees. Research activities require a long time to collect the necessary data. This research data collection activity can take months, even years. Similarly, community service activities are no less time-consuming in the field. Therefore, it can be concluded that lecturers' work is independent. In other words, they are not tied to office hours and a single location (only the campus). Factually, lecturers are identical to the campus. This is because the place where the learning process takes place/occurs on campus. These routine activities (learning) have their own rules and procedures. These rules originate from the university as the executor of the study.

Government policy. One example of a policy outlined in government regulations is the obligation for lecturers to implement the Tri Dharma of Higher Education. Every lecturer is required to report their performance in the form of a Lecturer Workload Report (BKD). Lecturers are required to submit BKD reports twice a year. This obligation also applies to lecturers who have received teaching certification or lecturer certification. Therefore, a lecturer who has passed lecturer certification submits a performance report for internal campus and the Higher Education Service Institute (LLDIKTI). Lecturers are inevitably required to conduct research and publish in journals. What can be included in the lecturer workload if there is no research? Clearly, all the entries cannot be entered if they are incorrect. For example, in our research field report, what can be included in the web URL if there is no research being conducted? In filling out the lecturer workload, three areas are required plus one area: education and teaching, research, community service, and support. In accordance with government regulations, specifically the Minister of Higher Education and Research, the teaching load is 9 credits, research load is 2 credits, community service load is 2 credits, and supporting load is 1 credit. So there are minimum and maximum standards in one semester report, namely a minimum of 12 credits per semester for lecturers and a maximum of 16 credits. All submitted files (filled in the online report) are required to be attached in physical form by scanning the lecture schedule and teaching decree. Likewise, research and community service results must be accompanied by evidence of scientific publication in the form of a journal by including the web address or URL. Now it is no longer difficult to obtain the required data because there are

cellphones, for example, interview data can be called the respondent to chat on the phone. We just have to record the information we need.

However, it is a bit vulnerable to being worked on if the respondent does not know us. Later, they will be given information that is made up. The digital era in the form of Android cellphones makes it easier for people to conduct communication transactions both short and long distance, domestically and internationally. The existence of digital technology is essential for showcasing audiovisual creativity. For example, in the learning process, lecturers can utilize PowerPoint applications to present material to students in an engaging manner. The same approach can also be applied to research data collection, particularly for interviews and documentation. As in this scientific study, researchers conducted interviews with respondents using digital technology, specifically mobile phones. These interviews lasted for a sufficient length of time, depending on the needs. Communication transactions (interviews) using mobile phones are certainly treated differently than face-to-face interviews.

When researchers conduct interviews via mobile phone, they often have to consider the internet data usage, which can be quite demanding. Therefore, they can get straight to the point of communication regarding the required information. Similarly, information about the vision, mission, and organizational structure of an educational institution or company can be accessed through its website using a computer or Android phone. Interviewing using a mobile phone differs from face-to-face interviews. One difference lies in the affective (value) element. A researcher and a respondent will feel an emotional connection when they chat in a friendly and family atmosphere. Therefore, an interview conducted in an office certainly has a different atmosphere than an interview conducted at the respondent's home. Interviews conducted in an office can seem formal because they are set on a weekday and during working hours. Conversely, when researchers conduct interviews at the respondent's home, the atmosphere is more family-like. This fosters openness in providing the necessary information, without any sense of distance.

Lecturers can actually conduct research anywhere, as well as community service. However, we as lecturers must be smart in finding research problems that align with our budget. A variety of problems can be found for research, both individually and organizationally, whether in a local, national, or international context. Based on the data above, it is understandable that the choice of research approach is also considered according to the researcher's academic discipline and ability to complete their research project. Lecturers mostly conduct research using a case study approach. This is because many problems related to the cognitive and affective domains are encountered on campus. Lecturers utilize digital technology to facilitate scientific research activities, such as distributing questionnaires to respondents via WhatsApp or other applications. The presence of this digital technology provides an efficient and effective supporting instrument for researchers in conducting scientific research. Therefore, lecturers are required to always update their digital literacy to adapt to the development of human life as God's creatures on this earth. Scientific research productivity can be achieved by utilizing digital technology as an instrument for generating theories.

4. CONCLUSION

Lecturers are required to possess six competencies: pedagogical, professional, social, personality, research, and community service competencies, as a guarantee of their credibility as scientists in conducting various academic activities. Scientific research activities are conducted based on knowledge, consistency, and commitment to research principles, namely: systematic, objective,

factual, and useful. By implementing these elements, lecturers will avoid bias and their findings will, God willing, be blessed. Lecturers' scientific research productivity can be achieved by utilizing digital technology as an instrument to facilitate data access and also enrich performance creativity. In other words, digital technology can change the difficult to easy, from ordinary to extraordinary. This is a blessing for lecturers, motivating them to conduct scientific research on a local, national, and international scale. Lecturers are professional educators and scientists. Lecturers are not office employees or company employees but are independent because lecturers have an obligation to carry out the three pillars of higher education, namely education, research, and community service. In other words, lecturers are human beings who develop knowledge to be used as a reference/guide in carrying out worldly activities so that human work becomes easier and lighter.

Research activities require considerable time spent in the field collecting research data, which is one reason why lecturers are not bound by office or company operating hours. Lecturers are required to be role models in interacting with both the academic community and the general public in order to create exemplary attitudes and behaviors in accordance with Indonesian religious, cultural, and social values. It is important to actualize this in a concrete form so that it is hoped that it will create a positive nuance towards the existence of lecturers as scientists and continuously conduct scientific research to produce new knowledge for humanity. Thus, the burden of human life as God's creatures will be lighter and easier thanks to new discoveries in both soft (knowledge) and hard (material products).

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