

Improvement of lecturer performance in research and scientific publication through coaching program at Marsekal Suryadarma Aerospace University

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Abstract: The performance of Dirgantara University Lecturer Marshal Suryadarma (Unsurya) in research and publications places Unsurya, before 2023, in the primary rank. Given the existing conditions, Elemenya leadership has made various improvements to enhance lecturer performance, especially in the fields of research and scientific publications. To improve Tridarma's performance, training assistance activities have been carried out, and after approximately one year, the mentoring program has been successful in raising the middle rank. This research aims to analyze research and publication training to improve lecturer performance in the Tridarma of Higher Education. Using a qualitative approach with descriptive analysis, data collection was carried out through in-depth interviews, observation, and documentation studies. The findings show: (1) Training in research is very important because it helps lecturers understand library observation techniques, identify and plan data source problems, and analyze data using software; (2) publication training improves lecturers' abilities in writing quality articles, citing references using software, introducing reputable publishers, understanding reviewers, and publishing books/journals; (3) These training activities succeeded in improving Tridarma's performance by increasing lecturers' enthusiasm for scientific work, motivation, research and scientific writing competence, and collaboration. This increase can be seen from the rise in research output, publications, intellectual property rights, and affiliations that support lecturer performance reports in accordance with regulations.

Keywords: Lecturer performance, Research, Scientific publications, Coaching.

1. Introduction

The Ministerial Regulation of Research, Technology, and Higher Education No. 44 of 2015 on National Standards for Higher Education explains that lecturers are professional educators and scientists whose performance is evaluated based on the implementation of the Tri Dharma of Higher Education, which includes education, research, and community service. Universitas Dirgantara Marsekal Suryadarma (Unsurya), as a private higher education institution in Jakarta, has a vision to become a center of excellence in aerospace education and related fields, producing graduates who are ready for the workforce. As a university, Unsurya faces the challenge of continually improving the professionalism and performance of its lecturers to achieve the goal of becoming an outstanding institution.

One of the main factors in achieving this goal is the performance of the lecturers. Based on data, about 25% of lecturers at Unsurya do not have a Functional Position (Jafa) and are classified as Teaching Staff (TP). Meanwhile, most lecturers hold the positions of Assistant Expert and Lecturer, with only 5% holding the position of Senior Lecturer and 1% as Professors. Furthermore, 39% of lecturers have passed the professional lecturer certification while 61% have not. In terms of education, only 20% of

lecturers hold a doctoral (S3) degree, while 80% hold a Master's (S2) degree. This situation presents a challenge, as one of the requirements for achieving Excellent Accreditation is to have lecturers with functional positions and doctoral degrees, which requires efforts to improve lecturer performance.

To improve the performance of lecturers, especially in the fields of research and scientific publication, Unsurya has implemented a coaching mentoring program. Coaching is a mentoring approach that focuses on the personal development of lecturers to improve their teaching abilities and the quality of their research and scientific publications. This mentoring is interactive and personalized, helping lecturers to discover their potential and hone their skills. The urgency of improving lecturer performance in research and scientific publications through the Coaching Mentoring Program at Universitas Dirgantara Marsekal Suryadarma is considered highly relevant.

With this program in place, it is expected to improve the quality of lecturers' performance in research and scientific publications. The main focus of this study is to analyze how coaching mentoring can be applied in the fields of research and scientific publications, as well as how this mentoring can enhance lecturer performance at Unsurya. This study has several research questions: 1) How is coaching mentoring implemented in the field of research for permanent lecturers at Unsurya? 2) How is coaching mentoring implemented in the field of scientific publications for permanent lecturers at Unsurya? 3) How can the coaching mentoring program improve lecturer performance at Unsurya in the fields of research and scientific publications?.

The objective of this research is to analyze coaching mentoring in the fields of research and scientific publications and to understand how this mentoring can contribute to improving lecturer performance at Unsurya. Therefore, this research is expected to provide both theoretical and practical contributions, offering solutions to improve lecturer performance and support the achievement of excellent accreditation at Unsurya.

2. Material and Method

The research was conducted at Universitas Dirgantara Marsekal Suryadarma (Unsurya) using a qualitative descriptive method. The subjects of the research are informants or sources of data, including: a. Unsurya Rectorate Analysis Unit: Informant 1: Rector of Unsurya, Informant 2: Head of LP2M. b. Unsurya Lecturer Analysis Unit: Informant 3: Lecturer without functional position (non-JAFA), Informant 4: Lecturer with JAFA-AA position, Informant 5: Lecturer with JAFA-Lector position, Informant 6: Lecturer with JAFA- Lector Kepala position, Informant 7: Lecturer with JAFA-Guru Besar position.

The object of the research is to improve lecturer performance in research and scientific publications through a coaching assistance program at Universitas Dirgantara Marsekal Suryadarma (Unsurya). Data collected includes both primary and secondary data, using interview techniques, observation, and document studies. Data validation is carried out through triangulation of data sources, techniques, and time.

The qualitative data analysis involves the use of NVivo software for data analysis. NVivo is a qualitative data analysis software developed by Qualitative Solutions and Research (QSR) International. The data collected from interviews, observations, and documentation are analyzed by the researcher to derive meaning from the findings. The researcher looks for patterns and frequently emerging elements in the data, then draws conclusions, which are later verified.

3. Data Analysis

3.1. Performance

Mangkunegara [1] performance is the result of work in terms of quality and quantity achieved by an employee in carrying out their duties according to the responsibilities given to them. The work results can be measured in terms of quality and quantity in performing their duties and responsibilities in a higher education institution. Quantitatively, a lecturer's performance can be seen from the number of teaching hours, the number of courses taught, the number of students supervised, and the number

of scientific publications produced. For example, a lecturer who teaches many classes, supervises many students, and publishes many articles in accredited journals shows high quantitative performance. According to Bastian in Fahmi [2] performance is a depiction of the level of achievement of implementing activities/programs/policies in realizing the goals, missions, and vision of an organization, which is outlined in the formulation of a strategic scheme of the organization.

3.2. Lecturer Performance Appraisal

Performance appraisal is a process used by leaders to determine whether an employee is performing their job according to their tasks and responsibilities [3]. Performance appraisal serves as a tool in decision-making by leaders, benefiting employees by helping them identify weaknesses, potential, goals, plans, and career development. For the company, it is useful in decision-making processes, including identifying the need for education and training programs, recruitment, selection, placement, promotion (career development), and other aspects of the overall management process effectively.

3.3. Factors Affecting Lecturer Performance

Lecturers have a position as professional staff in higher education, with the function of enhancing their dignity and role as learning agents, developers of knowledge, technology, and arts, as well as serving the community to improve the quality of national education. Other factors affecting lecturer performance include the lecturer's desire to achieve the expected performance. Academic loyalty of lecturers influences their performance. Performance is a demonstration of work, both in terms of quantity and quality, achieved by an individual in carrying out their responsibilities. Many factors influence lecturer performance in carrying out the duties of the Tri Dharma of Higher Education, including: (1) self-concept, (2) self-efficacy, (3) personality, (4) experience, (5) rewards, (6) work motivation, (7) personal commitment to self-improvement, (8) loyalty of the lecturer as a mentor to students in the academic environment, (9) emotional intelligence, (10) interpersonal communication among lecturers, (11) available facilities and infrastructure, (12) economic status of each lecturer, and others.

3.4. Efforts to Improve Lecturer Performance

Quality lecturers must meet minimum standards. The competency requirements are outlined in Law No. 14 of 2005 concerning lecturers, which state that lecturers must have pedagogical competence, personal competence, social competence, and professional competence.

According to Egan and Zierath [4] there are four competencies that lecturers must possess to carry out their profession: knowledge of content, which is the lecturer's mastery of the subjects they teach; pedagogical content knowledge, which is the lecturer's ability to make learning materials understandable to students; general pedagogical knowledge, which is mastery of basic teaching principles and classroom management; and knowledge of learners and learning, which involves understanding the nature of students. According to Ahmadi [5], there are six aspects contained in the concept of competence: knowledge, understanding, skill, value, attitude, and interest.

3.5. Coaching

Coaching is a process that can help individuals and groups bridge the gap between where they are and where they want to be, in this case, within the organization [6]. Whitmore in Passmore [7] argues that coaching is the key to unlocking an individual's potential to maximize their performance. Coaching focuses more on helping someone learn rather than teaching them. Referring to the Association for Coaching in 2005 [7] coaching is a collaborative process that is solution-focused, result-oriented, and systematic, where coaching facilitates improvements in work performance, life experiences, self-learning, and personal growth of the coachee.

3.6. Research

According to Siyoto and Sodik [8] research is an organized investigation or a careful and critical inquiry to determine facts. Clifford Woody describes it as a naturalistic investigation seeking a deep understanding of social phenomena in a natural context.

3.7. Scientific Publication

Scientific publication is a form of work in the field of education [9]. According to Permenristekdikti No.20 of 2017, which mandates that scientific publication is one of the indicators for evaluating the provision of professional allowances for lecturers and honorary allowances for Professors, this obligation is intended to increase scientific publications for the development of institutional repositories. Publication is a technical term that a writer needs to present their work.

3.8. Improving Lecturer Performance Through Coaching Method

Whitmore in Passmore [7] argues that coaching is the key to unlocking an individual's potential to maximize their performance. Coaching focuses more on helping someone learn rather than teaching them. Referring to the Association for Coaching in 2005 [7] coaching is a collaborative process that is solution-focused, result-oriented, and systematic, where coaching facilitates improvements in work performance, life experiences, self-learning, and personal growth of the coachee.

3.9. Framework of Thinking

The researcher analyzes the root problems, which are insufficient research and publication, and concludes with solutions derived from coaching assistance. This research will focus on scientific publications and research.

4. Discussion

After conducting a comprehensive analysis of various identified issues, based on the conceptual framework that has been thoroughly elaborated, the following can be explained:

4.1. Coaching in Research for Permanent Lecturers at Unsurya

The research results indicate that Unsurya encourages the implementation of mentoring to improve the performance of lecturers. Currently, the performance of lecturers at Unsurya is considered low, as evidenced by the low SINTA index and various national and international rankings. To address this issue, the institution has initiated several initiatives, including mentoring and increasing incentives for lecturers. Mentoring is carried out to help lecturers understand their tasks and responsibilities, including effective writing and problem-solving through research. There is the tridharma: research, teaching, and community service. The research shows that Unsurya plays an important role in improving the performance of lecturers, especially in research.

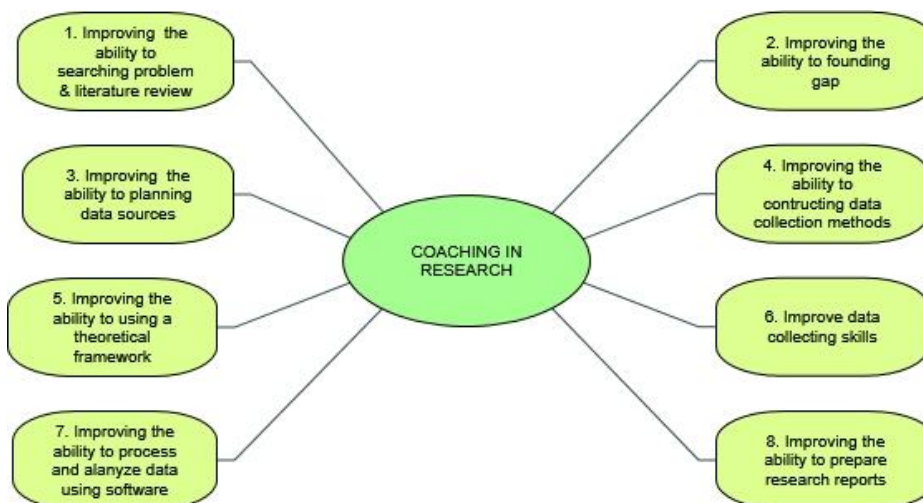


Figure 1.
The purpose of coaching in research for Permanent Lecturers at Unsurya.

Based on the presentation in Figure 1, it shows that the coaching method plays a role in improving the abilities of Unsurya's permanent lecturers in the field of research through activities such as the following: helping lecturers improve their ability to search for research problems and literature review skills, to find gaps, to plan data sources, to construct data collection methods, to use a theoretical framework, to improve data collecting skills, to process and analyze data using software, and to prepare research reports.

4.2. Coaching in Scientific Publication for Permanent Lecturers at Unsurya

The research shows that Unsurya plays a key role in enhancing research and publication efforts of lecturers through coaching methods. This coaching aims to address the challenges faced by lecturers in conducting research and scientific publications. A major challenge identified is the suboptimal human resource (HR) capacity. Many lecturers have yet to fully capitalize on research opportunities from various institutions such as BRIN and Dikti. Additionally, the institution ensures that internal research funding is used optimally, as previously these funds were often underutilized due to a lack of initiative from lecturers. Through coaching and encouragement, the use of internal research funds has significantly increased. Unsurya also organizes various workshops and training sessions focused on research and publication skills. Following the coaching, the research and publication index of lecturers has improved, indicating the effectiveness of the coaching method implemented at Unsurya, which focuses on enhancing lecturers' capacity through intensive training and coaching. The institution also provides various incentives such as salary increases and professional position allowances to motivate lecturers to be more active in research and publication. Lecturers are trained on how to write scientific articles to meet international publication requirements. Unsurya organizes workshops and training sessions focusing on research and publication skills.

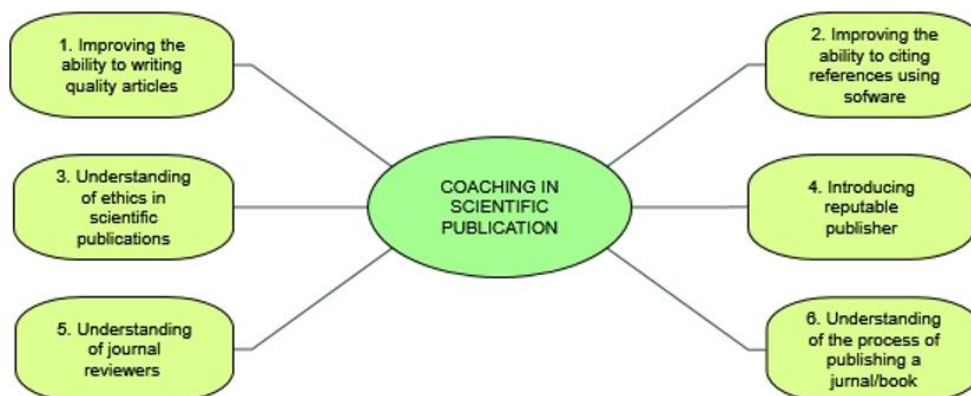


Figure 2.

The purpose of coaching in scientific publication for permanent lecturers at Unsurya.

Based on the presentation in Figure 2, it shows that the coaching method plays a role in improving the abilities of Unsurya's permanent lecturers in the field of research through activities such as the following: helping lecturers improve their ability to writing quality articles, to citing references using software, to understanding of ethics inscientific publications, to introducing retuable publisher, to understanding of journal reviewers, and to understanding of the processof publishing a journal/book.

4.3. Coaching in Research and Scientific Publication to Improve Lecturer Performance at Unsurya

The research findings indicate that at Universitas Suryadarma (Unsurya), the role of lecturers is crucial in supporting research and scientific publication performance. Most lecturers at Unsurya hold structural responsibilities and additional non-academic tasks, which often become the main obstacles in conducting research and publishing. Factors such as limited time, lack of research support facilities, and heavy structural duties contribute to the low number of scientific publications produced by the lecturers. Therefore, lecturers are encouraged to address challenges such as limited facilities and time management, as well as optimize the research process from start to publication. Through coaching, lecturers are supported in identifying and overcoming challenges they face, such as time management and utilizing limited facilities. Coaching also helps lecturers understand the systematic research process, from proposal creation to training on the use of research tools. With this approach, it is expected that lecturers will become more focused and skilled in research, ultimately increasing both the quantity and quality of scientific publications. Effective coaching support will drive the achievement of research goals, improve lecturer performance, and foster the development of a sustainable research ecosystem at Unsurya. Experienced coaches, often seasoned researchers, provide constructive feedback and support to help lecturers plan and execute more effective research.

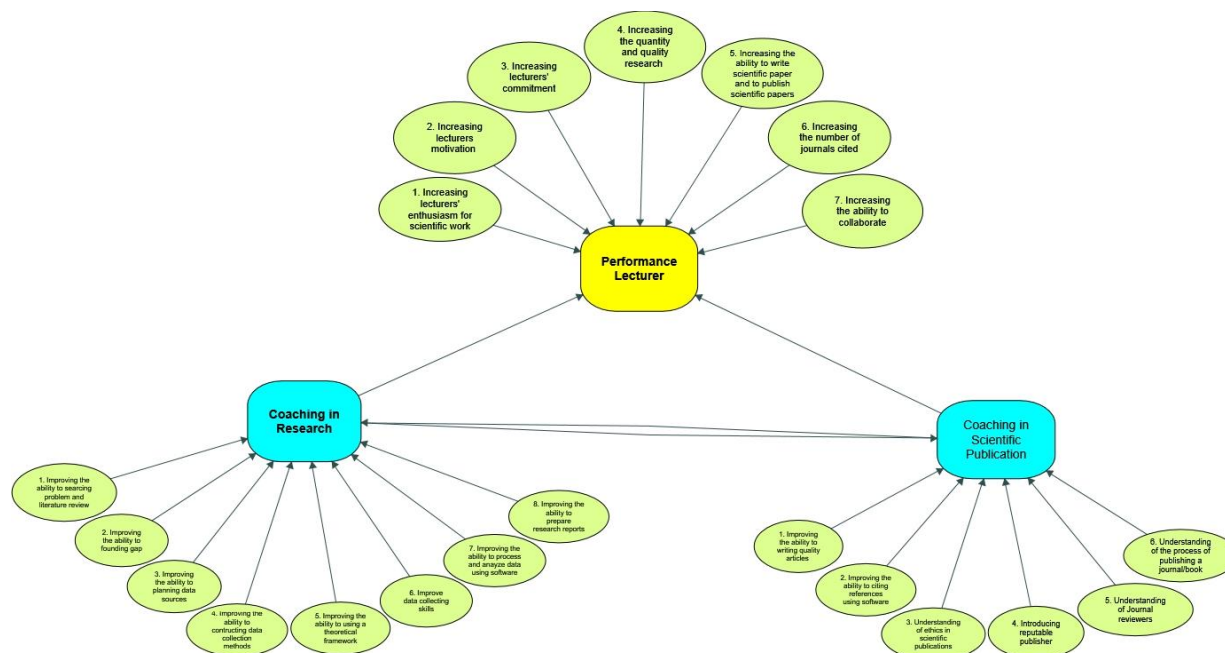


Figure 3.
The relationship between Coaching in research and scientific publication to improve lecturer performance at Unsurya.

Based on the presentation in Figure 3, it shows that the coaching assistance method implemented for permanent lecturers in the field of research and scientific publications is related to improving the Tridharma performance of the permanent lecturers at Unsurya, this is shown by several indicators including: increasing lecturers' enthusiasm for scientific work, motivation, commitment, increasing quantity and quality research, ability to write scientific paper and to publish, increasing the number of journals cited, and collaboration.

5. Conclusion

Based on the research findings and discussions, the following conclusions can be drawn:

The coaching activities in the field of research for lecturers at Unsurya are important because the activities in coaching, which provide more opportunities for asking questions, listening, and practicing, significantly help lecturers to better understand techniques such as literature review, identifying problems, planning data sources, various techniques and tools for data collection, processing, and data analysis using software, as well as finding alternative solutions. These activities are considered effective in improving research competencies.

Coaching activities in the field of publication for lecturers at Unsurya are essential and necessary because they help improve the ability to write quality articles, with an understanding of tips and tricks for writing scientific articles, the ability to cite references using software, recognizing credible and reputable publishers, understanding reviewers, as well as facilitating the writing and publication of books/journals.

Coaching activities in both research and publication have improved the performance of the Tridharma of lecturers at Unsurya by fostering motivation and enthusiasm, enhancing research and writing competencies, as well as promoting collaboration, as evidenced by the increase in internal and external research output (grants), book/journal publications, intellectual property rights, and the addition of affiliations. This ultimately supports the achievement of lecturer work reports that meet the required standards according to applicable regulations.

Based on the conclusions and implications of the research findings, the following

recommendations are suggested:

6. Recommendations for the Institution

a. The Universitas Dirgantara Marsekal Suryadarma should improve and update its research facilities, such as laboratories, libraries, and access to academic journals, so that lecturers have sufficient resources to conduct high- quality research. Encourage lecturers to participate in certification programs and professional development, both domestically and internationally, to enhance their expertise. Unsurya should organize regular training and workshops designed to improve lecturers' competencies in various aspects such as research methods, scientific article writing techniques, innovation in teaching, and the use of educational technology.

1.1. Recommendations for Lecturers:

a. Lecturers at Unsurya should continue to develop their capabilities in carrying out the Tri Dharma of higher education and remain diligent in writing research and scientific publications. b. Lecturers must be proactive in attending training and workshops related to research methods, scientific article writing techniques, and teaching innovations. Participation in these activities will update relevant knowledge and skills. c. Prioritize research that has a high impact and is relevant to their area of expertise. Aim to produce publications in internationally indexed journals. d. Take advantage of the mentoring programs provided by the institution to receive guidance and advice from senior lecturers. Mentoring can assist in career development and improve performance.

Transparency:

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

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