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Cultivating Excellence: Unraveling the Nexus of Female Leadership, Organizational Culture, and Lecturer Performance Private Universities

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Abstract

This research explores the intricate interplay between female leadership style, organizational culture, work motivation, and lecturer performance in private universities located in Tangerang City, aiming to shed light on their collective impact on education quality. Employing a quantitative survey approach with a sample of 382 lecturers chosen through simple random sampling, data analysis was executed using Partial Least Square (PLS) software version 3.0. The results unveiled a counterintuitive negative influence of female leadership style on lecturer performance, substantiated by a significant t-statistic value of 2.176 (p-value = 0.030 < 0.05). Conversely, organizational culture exhibited a potent positive effect, with a remarkable t-statistic value of 17.823 (p-value = 0), emphasizing its pivotal role in elevating lecturer performance. In conclusion, this study underscores the need for women in leadership to cultivate a supportive organizational culture to mitigate potential detrimental effects on lecturer performance, ultimately enhancing the overall educational quality of private universities in Tangerang City. These findings have broader implications for similar educational contexts and organizational leadership practices, highlighting the importance of fostering inclusive and conducive environments.

 $Keywords: Female\ Leadership; Organizational\ Culture; Lecturer\ Performance;\ Quality\ of\ Education.$

Abstrak

Penelitian ini mengeksplorasi interaksi yang rumit antara gaya kepemimpinan perempuan, budaya organisasi, motivasi kerja, dan kinerja dosen di perguruan tinggi swasta yang berlokasi di Kota Tangerang, yang bertujuan untuk menjelaskan dampak kolektif mereka terhadap kualitas pendidikan. Menggunakan pendekatan survei kuantitatif dengan sampel 382 dosen yang dipilih secara acak sederhana, analisis data dilakukan dengan menggunakan perangkat lunak Partial Least Square (PLS) versi 3.0. Hasil penelitian menunjukkan adanya pengaruh negatif yang berlawanan dengan intuisi dari gaya kepemimpinan perempuan terhadap kinerja dosen, yang dibuktikan dengan nilai t-statistik yang signifikan sebesar 2,176 (p-value = 0,030 < 0,05). Sebaliknya, budaya organisasi menunjukkan pengaruh positif yang kuat, dengan nilai t-statistik yang luar biasa sebesar 17,823 (p-value = 0), yang menekankan peran penting budaya organisasi dalam meningkatkan kinerja dosen. Sebagai kesimpulan, penelitian ini menggarisbawahi perlunya perempuan dalam kepemimpinan untuk mengembangkan budaya organisasi yang mendukung untuk mengurangi potensi dampak yang merugikan pada kinerja dosen, yang pada akhirnya meningkatkan kualitas pendidikan secara keseluruhan di perguruan tinggi swasta di Kota Tangerang. Temuan ini memiliki implikasi yang lebih luas untuk konteks pendidikan dan praktik kepemimpinan organisasi yang serupa, yang menyoroti pentingnya membina lingkungan yang inklusif dan kondusif.

Kata Kunci: Kepemimpinan Perempuan; Budaya Organisasi; Kinerja Dosen; Kualitas Pendidikan.

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INTRODUCTION

Higher education is essential for maintaining the ability to provide quality educational services with a minimum standard to stakeholders. However, the quality of education in many private universities in the city of Tangerang is uneven and subpar. Several private universities are facing significant challenges. This inequality among private tertiary institutions in the LLDIKTI (Lembaga Layanan Pendidikan Tinggi, The Higher Education Services Institutes) 4 area, especially in Tangerang, contrasts with a recent issue that has been emerging—namely, the high administrative burden placed on lecturers (Siswopranoto, 2022; Sitorus, Simanjuntak, & Situmorang, 2022). Lecturers find themselves occupied with various administrative tasks, even though they also need to focus on improving teaching quality to produce wellqualified graduates (Bjork & Susanti, 2023).

Education will form qualified human beings. In fact, the quality of human resources in Indonesia is very far from expectations (Danim, 2013). Several cases that illustrate this condition include: the low level of education services in Indonesia; the low quality of education in Indonesia; The low quality of higher education in Indonesia; and the low literacy skills of Indonesian children (Katuuk & Kallo, 2019; Sunarsi, 2018). Several government policies, among others, continuously strive to improve the quality of higher education (Çınar Altıntaş & Hakan Altıntaş, 2008).

Universities are challenged to be able to produce human resources who have expertise, skills and professions that are in accordance with development needs as well as in accordance with the characteristics and aspirations of each individual student (Hasibuan, 2000). This challenge will be answered by improving lecturer performance which includes the performance of education and teaching, research, and community service (Rehatta & Tutupoho, 2019; Writers, 2019). Good lecturer performance will affect the learning process as a whole which will have an impact on improving the quality of graduates and tertiary institutions (Sary & Saud, 2018). If lecturers have qualified capabilities, then directly the quality of the campus will also be boosted, and vice versa, as perfect as any how planned educational and teaching programs, if not supported by qualified lecturers, then these objectives will only end in unsatisfactory results (Dell'Anna, Pellegrini, Ianes, & Vivanet, 2022).

The phenomenon that occurs is that lecturers' duties are quite burdensome, making it challenging for tertiary institutions, especially private universities in the city of Tangerang, to consistently maintain quality work over an extended period (Veithzal Rivai, 2011). This condition is further exacerbated by the inadequacies of private universities in providing welfare and enhancing campus facilities and infrastructure (Slevin et al., 2023). To address the issue of low lecturer performance, we require a leader who can serve as an example for lecturers to improve their performance. Such a leader should have the ability to influence and drive the implementation of education, ultimately achieving educational goals effectively and efficiently (Findyartini et al., 2023).

In the current era, in improving the quality of education, it is not uncommon to find a tertiary institution led by women in carrying out their duties, leaders are required to be able to carry out their duties properly and be able to overcome the problems they are going through so that they can answer the doubts given to a leader at that level (Owens & Thomas C. Valesky, 2022).

Women's participation in every aspect of education is very strategic to play a role in improving the quality of education (Prabu & Wijayanti, 2016). The Municipal Government of Tangerang continues to push for gender equality in every sector of development and education (V Rivai & Mulyadi, 2012; Robbins, Judge, Millett, & Boyle, 2013). In addition to leadership, organizational culture and motivation are important factors in improving lecturer performance, a healthy organizational culture will motivate

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lecturers to improve their performance so that it will also have an impact on improving the quality of education in a tertiary institution.

RESEARCH METHODS

This study uses a quantitative approach. This research was conducted to analyze the influence of women's leadership style, organizational culture and work motivation on lecturer performance which has an impact on the quality of education in private universities in Tangerang City. This research data collection method uses survey research methods. Data analysis techniques in this research use Structural Equation Modeling (Smart-PLS) analysis. The population and sample in this study were lecturers at private universities in Tangerang City, the technique used in this study was Simple Random Sampling.

The population in this study are Lecturers at private universities Tangerang City, totaling 8909. Based on BPS data for 2022. According to Sugiyono (2015) sample is part of the number and characteristics possessed by the population. If the population is large, and it is impossible for the researcher to study everything in the population, for example due to limited funds, manpower and time, the researcher can use samples taken from that population. What is learned from the sample, the conclusions will be applicable to the population. For this reason, samples taken from the population must be truly representative. So the samples taken from this study were 382 lecturers at private universities in Tangerang City. The data collection method used in this research is a questionnaire, which is a data collection method by distributing questionnaires (list of questions) addressed to respondents.

The structural model is used to predict the causality relationship between latent variables. The structural model was evaluated by looking at the percentage of variance explained by the R2 value for the dependent variable using the Stone-Geisser Q-Square Test (Ghozali & Latan, 2015). The model equation is:

$N = \beta O + \beta \eta + \eta \varepsilon + \zeta$

Where η describe the latent variable endogenous (dependent) vector, ϵ is the residual variable vector. Each dependent latent variable of the latent variable can be specified as follows:

pc = Σiβjiηi + Σiγjbεb+ζj

Where β ji and γ jb is the path coefficient connecting endogenous predictors and exogenous latent variableseAnd η throughout the range of indices i and b, and ζ is the inner residual variable. If the results produce an R2 value greater than 0.2, it can be interpreted that latent predictors have a large influence on the structural level. Figure 1 is a picture of the structural model of the research:

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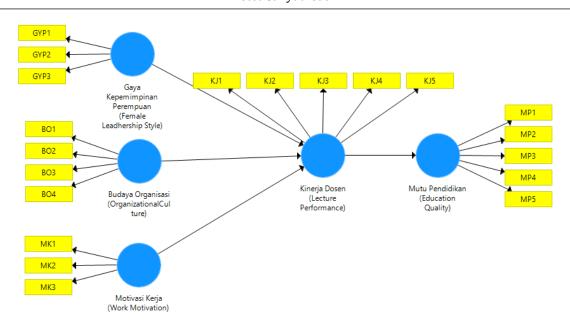


Figure 1 Research Design

RESULTS AND DISCUSSION

Outer Model Analysis

Testing the measurement model (outer model) is used to determine the specification of the relationship between latent variables and their manifest variables, this test includes convergent validity, discriminant validity and reliability.

Convergent Validity

According to Ghozali (2013) a correlation can be said to meet convergent validity if it has a loading value of > 0.7. The output shows that the loading factor gives a value above the recommended value of 0.7. However, at the research stage of developing the scale, a loading of 0.60 is still acceptable. So that the indicators used in this study have met convergent validity. The structural model in this study is shown in the following figure 2.

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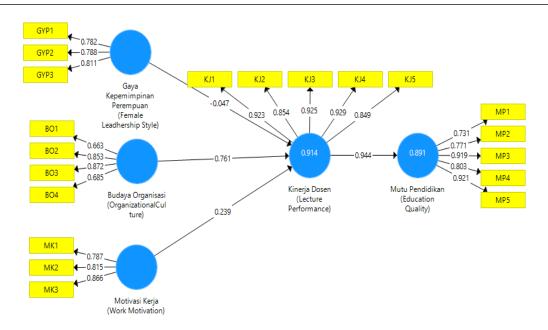


Figure 2 Outer Model, Algorithm Testing

Table 1 Outer Loading

	Female Leadership Style (Female Leadership Style)	Organizational Culture (Organizational Culture)	Work Motivation	Lecturer Performance	Education Quality
B01	<u> </u>	0.663			
BO2		0.853			
B03		0.872			
B04		0.685			
GYP1	0.782				
GYP2	0.788				
GYP3	0.811				
KJ1				0.923	
KJ2				0.854	
KJ3				0.925	
KJ4				0.929	
KJ5			0.707	0.849	
MK1			0.787		
MK2			0.815		
MK3			0.866		0.721
MP1 MP2					0.731 0.771
MP2 MP3					0.771
MP3 MP4					0.803
MP4 MP5					0.803
MILD					0.741

Source: Smart PLS Program Output. 3.0, 2023

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Based on the data in table 1, it can be seen that the lowest outer loading value in the outer model test results of this study is 0.663 which is in the BO1 indicator. Refers to the predetermined outer loading limit, which is 0.7. However, in the research at the scale development stage, a loading of 0.60 is still acceptable, so these results indicate that the model meets the assumptions of convergent validity because the lowest outer loading value is 0.633 > 0.6.

Construct Validity and Reliability

Table 2 Construct Validity and Reliability

	Cronbach' s Alpha	rho _A	Composite Reliability	Average Variance Extracted (AVE)
Female Leadership Style (Female Leadership Style)	0.709	0.7 16	0.836	0.630
Organizational Culture (Organizational Culture)	0.776	0.8 34	0.855	0.599
Work Motivation	0.770	0.8 20	0.863	0.678
Lecturer Performance	0.939	0.9 38	0.954	0.804
Education Quality	0.888	0.9 10	0.918	0.693

Source: Smart PLS Program Output. 3.0, 2023

Data from Table 2 shows that the lowest AVE value of the 3 variables is 0.599 which belongs to the organizational culture variable. These results indicate that the five research variables have fulfilled the discriminant assumption validity because the lowest AVE value is obtained more than 0.5. While the Cronbach alpha and composite reliability results show that the lowest value is 0.709 for the female leadership style variable. Thus these results also prove that all variables meet the reliability construct assumption because the lowest Cronbach alpha and composite reliability values are > 0.7.

Testing Inner Model

After testing the outer model, it is necessary to evaluate the final structural equation model (inner model). The inner model test of this research is carried out by looking at the path coefficient and R square values as follows:

Table 3 R Square

	R Square	R Square Adjusted
Lecturer Performance	0.914	0.913
Education Quality	0.891	0.891

Source: Smart PLS Program Output. 3.0, data processed by the author in 2023

Based on table 3 shows that the R Square value for the Lecturer Performance variable is 0.914. This acquisition explains that the percentage of Lecturer Performance is 91.4%. This means that the female

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leadership style variable, organizational culture variable and work motivation variable affect lecturer performance by 91.4% and the remaining 8.6% is influenced by other variables, while the R Square value for the quality of education variable is 0.891. This gain explains that the percentage the magnitude of the defense decision is 89.1%. This means that the variable quality of education, lecturer performance variables affect the quality of education by 89.1% and the remaining 9.9% is influenced by other variables

Table 4 Inner Model test results

	Original	Sample	Standard	T Statistics	P
	Sample	Means	Deviation	(O/STDEV	Val
	(0)	(M)	(STDEV)	[)	ues
Female Leadership Style -> Lecturer Performance	-0.047	-0.048	0.022	2,176	0.0 30
Organizational Culture (Organizational Culture) -> Lecturer Performance	0.761	0.768	0.043	17,823	0.0 00
Work Motivation -> Lecturer Performance	0.239	0.234	0.039	6,195	0.0 00
Lecturer Performance -> Quality of Education (Education Quality)	0.944	0.944	0.004	230,613	0.0 00

Source: Smart PLS Program Output. 3.0, data processed by the author in 2023

Based on table 4 the results of the evaluation of the structural equation model of the relationship between variables partially explained by the path coefficient value can be described as follows:

- 1. Path coefficient hypothesis 1, namely the female leadership style obtained at -0.047. This value indicates that there is an effect of 4.7% (-0.047 x 100%). This result also means that the female leadership style given can actually reduce lecturer performance.
- 2. The path coefficient value in hypothesis 2 was obtained at 0.761. This value indicates that organizational culture has an influence of 76.1% (0.761 x 100%) on lecturer performance. This result also means that the higher the organizational culture, the higher the performance of lecturers
- 3. The path coefficient value in hypothesis 3 was obtained at 0.239. This value indicates that work motivation has an effect of 23.9% (0.239 x 100%) on lecturer performance. This result also means that the higher the work motivation, the higher the lecturer's performance.
- 4. The path coefficient value in hypothesis 4 is 0.944. This value indicates that lecturer performance has an influence of 94.4% (0.944 x 100%) on the quality of education. This result also means that the higher the performance of the lecturers, the higher the quality of education.

Hypothesis test

This study has 4 hypotheses as research questions that have been formulated and need to be tested for truth. Testing the hypothesis in this study using the t test, namely by comparing the value of the t statistic obtained from the test*bootstrapping* with a critical limit value of t table of 1.648 at a significance level of 5% (0.05). The results of the research hypothesis test are presented as follows:

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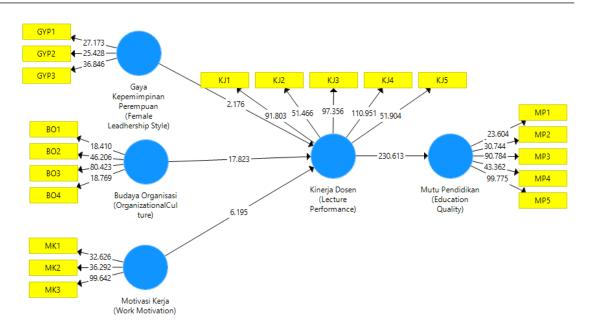


Figure 3 Inner Model, Bootstrapping Test

Table 5 Direct Effect Test Results

	Original Sample (0)	Sample Means (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV	P Val ues	Ket
Female Leadership Style -> Lecturer Performance	-0.047	-0.048	0.022	2,176	0.0 30	Acc ept ed
Organizational Culture -> Lecturer Performance	0.761	0.768	0.043	17,823	0.0 00	Acc ept ed
Work Motivation -> Lecturer Performance	0.239	0.234	0.039	6,195	0.0 00	Acc ept ed
Lecturer Performance -> Quality of Education (Education Quality)	0.944	0.944	0.004	230,613	0.0	Acc ept ed

Source: Smart PLS Program Output. 3.0, data processed by the author in 2023

Based on the PLS output (bootstrapping test) presented in Table 5, it can be explained that:

- 1. Hypothesis 1: From the original sample value of -0.047, a t statistic value of 2.176 and a P-value of 0.030 is obtained. These results prove that the female leadership style has a negative effect on lecturer performance with a relationship value of -4.7% (-0.047 x 100%). The t statistic value is 2.176 > t table is 1.648 and the P-value is 0.030 < 0.05 proving that hypothesis 1 in this study is acceptable.
- 2. Hypothesis 2: From the original sample value of 0.761, a t statistic value of 17.823 < 1.648 and a P-value of 0.000 is obtained. These results prove that organizational culture has a positive and significant effect on lecturer performance with a relationship value of 76.1% ($76.1 \times 100\%$). The t

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- statistic value is 17.823 > t table is 1.648 and the P-value is 0.000 < 0.05 proving that hypothesis 2 in this study is accepted.
- 3. Hypothesis 3: From the original sample value of 0.239, a t statistic value of 6.195 > 1.648 and a P-value of 0.000 is obtained. These results prove that work motivation has a positive and significant effect on lecturer performance with a relationship value of 23.9% (0.239 x 100%). The t statistic value is 6.195 > t table is 1.666 and the P-value is 0.000 < 0.05 proving that hypothesis 3 in this study is accepted.
- 4. Hypothesis 4: From the original sample value of 0.944, a t-statistic value of 230.613 <1.648 and a P-value of 0.000 is obtained. These results prove that lecturer performance has a positive and significant effect on the quality of education with a relationship value of 94.4% (0.944 x 100%). The t statistic value is 230.613 > t table 1.648 and the P-value is 0.000 <0.05 proves that hypothesis 4 in this study is accepted,

CONCLUSION

Based on the results of the research that has been done and the data analysis as described in the previous chapter, it can be concluded that there is a negative influence of female leadership style on the performance of lecturers at private universities in Tangerang City. There is a positive and significant influence of organizational culture on lecturer performance at private universities in Tangerang City. There is a positive and significant influence of work motivation on the performance of lecturers at private universities in Tangerang City. There is a positive and significant influence on the performance of lecturers on the quality of education in private universities in Tangerang City.

One of the limitations of this study is the focus on private universities in Tangerang City, which may limit the generalizability of the findings to other contexts or types of institutions. Additionally, the research relied on self-report measures for variables like leadership style, organizational culture, and work motivation, which can introduce response bias and subjectivity. Another limitation is the cross-sectional nature of the study, which makes it challenging to establish causality between variables. Longitudinal or experimental research designs could provide more robust evidence of causation. Furthermore, while the study examined the influence of female leadership style, it did not delve into the specific aspects or behaviors that contribute to this impact. Finally, external factors and variables not considered in this research, such as economic conditions or faculty qualifications, could also play a role in lecturer performance and educational quality. Future studies could benefit from addressing these limitations to gain a more comprehensive understanding of the relationships explored in this research.

REFERENCES

- Bjork, C., & Susanti, D. (2023). Can community participation leverage changes in teacher behavior? Evidence from remote areas of Indonesia. *International Journal of Educational Development*, 102, 102840. https://doi.org/10.1016/j.ijedudev.2023.102840
- Çınar Altıntaş, F., & Hakan Altıntaş, M. (2008). The relationship between feminist/womanist identity and leadership styles of women managers in Turkey. *Gender in Management: An International Journal*, *23*(3), 175–193. https://doi.org/10.1108/17542410810866935
- Danim, S. (2013). *Introduction to Education: Foundations, Theories, and 234 Educational Metaphors*. Dell'Anna, S., Pellegrini, M., Ianes, D., & Vivanet, G. (2022). Learning, Social, and Psychological Outcomes of Students with Moderate, Severe, and Complex Disabilities in Inclusive

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- Education: A Systematic Review. International Journal of Disability, Development and Education, 69(6), 2025-2041. https://doi.org/10.1080/1034912X.2020.1843143
- Findyartini, A., Syah, N. A., Susilo, A. P., Nurokhmanti, H., Qomariyah, N., Greviana, N., ... Claramita, M. (2023). Challenges and opportunities in cultivating medical students' competencies: Participatory action research from a hierarchical cultural setting. Medical Education Online, 28(1). https://doi.org/10.1080/10872981.2023.2185122
- Ghozali, I., & Latan, H. (2013). Concepts, Techniques, Applications Using Smart PLS 3.0 for Empirical Research. Semarang: Universitas Diponegoro.
- Ghozali, I., & Latan, H. (2015). Partial least squares konsep, teknik dan aplikasi menggunakan program smartpls 3.0 untuk penelitian empiris. Semarang: Badan Penerbit UNDIP.
- Hasibuan, M. S. P. (2000). Manajemen Sumber Daya Manusia. Jakarta: Bumi Aksara.
- Katuuk, M. E., & Kallo, V. D. (2019). The Relationship Between Nurse Work Stress and Nurse Performance in Emergency Units and Intensive Care Units at Pancaran Kasih General **GMIM** *Journal* Hospital, Manado. of Nursing, 7(1), https://doi.org/10.35790/jkp.v7i1.25209
- Owens, R. G., & Thomas C. Valesky. (2022). Organizational behavior in education: Instructional leadership and school reform. Hoboken: Pearson.
- Prabu, A. S., & Wijayanti, D. T. (2016). Pengaruh Penghargaan dan Motivasi Terhadap Kinerja Karyawan (Studi Pada Divisi Penjualan PT. United Motors Center Suzuki Ahmad Yani, Surabaya). Iurnal Ekonomi **Bisnis** Dan Kewirausahaan, 5(2), https://doi.org/10.26418/jebik.v5i2.17144
- Rehatta, P. N. R., & Tutupoho, S. (2019). Pengaruh Kepuasan Kerja dan Komitmen Organisasi terhadap Kinerja Karyawan Badan Penyelenggara Jaminan Sosial (BPJS) Kesehatan Cabang Ambon. INOBIS: Jurnal Inovasi Bisnis Dan Manajemen Indonesia, 2(3), 330-342. https://doi.org/10.31842/jurnal-inobis.v2i3.94
- Rivai, V, & Mulyadi, D. (2012). Leadership and Organizational Behavior. Jakarta: PT. Rajagrafindo Persada.
- Rivai, Veithzal. (2011). Manajemen Sumber Daya Manusia untuk Perusahaan dari Teori ke Praktik. Jakarta: PT RajaGrafindo Persada.
- Robbins, S., Judge, T. A., Millett, B., & Boyle, M. (2013). Organizational behavior. Hoboken: Pearson Higher Education.
- Sary, P. F., & Saud, U. S. (2018). Kinerja Dosen Tetap Rumpun Manajemen Di Perguruan Tinggi Swasta. Jurnal Administrasi Pendidikan, 25(1), 54-64.
- Siswopranoto, M. F. (2022). Standar Mutu Pendidikan. Al-Idaroh: Jurnal Studi Manajemen Pendidikan Islam, 6(1), 17–29. https://doi.org/10.54437/alidaroh.v6i1.372
- Sitorus, H. R., Simanjuntak, A., & Situmorang, D. R. (2022). The Influence of Accounting Information Systems, Organizational Culture, Leadership Style, Rewards and Performance Measurement Systems on Managerial Performance (Case Study at PTPN IV Company Pasir Mandoge Unit. Journal of Management Science METHONOMIX, 5(1), 15-30.
- Slevin, F., Rieu, R., Beasley, M., Speight, R., Aitken, K., Good, J., ... Henry, A. M. (2023). Evaluation of the impact of teaching on delineation variation during a virtual stereotactic ablative radiotherapy contouring workshop. Journal of Radiotherapy in Practice, 22, e19. https://doi.org/10.1017/S1460396921000583
- Sugiyono. (2015). Metode Penelitian Pendidikan Pendekatan Kuantitatif, Kualitatif dan R&D. Bandung: Alfabeta.
- Sunarsi, D. (2018). Analysis of the Work Motivation of Volunteer Educators at the Community Learning Activity Center (PKBM) Bimasda, South Tangerang City. Creative: Scientific Journal of Management Study Program, University of Pamulang, 6(2), 53–65.
- Writers, K. B. (2019). Improving Education Quality Through Strategic Quality Planning. Journal of Quality Assurance, 5(2), 203-213.