



ORIGINAL CONTRIBUTION

Effect of Locus of Control and Professional Ethics on Teachers' Performance at University Level

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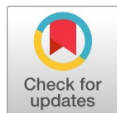
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Abstract— The study was conducted to determine of Locus of Control (LOC) and Professional Ethics (PE) on teachers' performance at university level. The study objectives are to identify the effect of LOC and PE on teachers' performance at university level & find out the relationship between LOC and PE on teachers' performance at university level. The area of population was delimited to public and private university teachers in Rawalpindi and Islamabad. The study was descriptive and quantitative in nature. Questionnaire was used to determine the effect of LOC and PE on performance of teachers. The sample of the study was taken from ten universities out of twenty-seven universities in the Rawalpindi and Islamabad areas. Universities were selected on the bases of convenient sampling techniques. Data was collected online using Google forms, and researchers personally visited universities to make sure that all questionnaires were filled correctly and on time by the respondent. Findings of the research indicated that internal LOC and PE serve as significant components of teachers' performance. It also showed that PE is the leading variable to affect the performance of teachers.

Index Terms— Internal LOC, External LOC, Professional ethics (PE), Teachers' performance, Professionalism

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Introduction

For many years, there has been an upsurge in research on teacher performance, which has been shown to be an important component closely tied to a variety of variables in education. It is widely acknowledged that the stronger the motivational and LOC support, the higher the performance of the teaching staff of any institute can be (Aisyah, 2021).

So the LOC is one aspect that has a significant impact on instructors' effectiveness. The LOC is seen as an important aspect of evaluating life successes (Bojnourd, 2021). Rotter (1966) classified LOC for the first time as internal and external control, as illustrated in figure 1. It is believed by the respondents that they are able to control their lives through internal LOC (Gam, 2018; Kiral, 2019). They believe that good or bad outcomes are the result of their own actions; on the other hand, some of the respondents stated that their lives are at some extend control by some external factors.

A university professional teacher is a researcher, mentor as well as a community worker (Kusuma et al., 2018). As a result, PE is another element associated with teacher performance. Apart from it, they provide quality education and impart ethical values to their students. Thus, it is necessary that have strong academic and professional credentials; they also need to be knowledgeable about PE (Sherpa, 2018, 2019) both inside and outside the campus (Ahluwalia, 2017).

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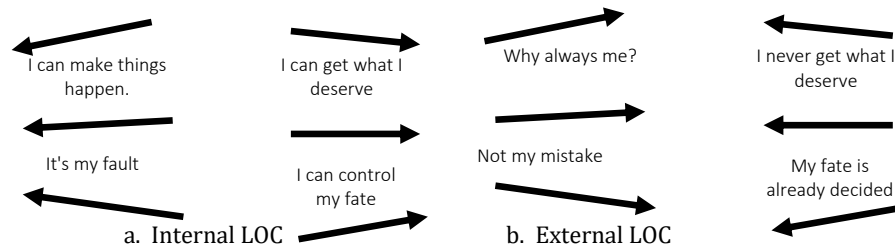


Fig. 1. Internal and external LOC

Related Literature

LOC is a general assumption of how much control reinforcements are subject to, either internally or externally. People with internal qualities feel that reinforcements are mostly determined by their own work, ability, and initiative, whereas those with external characteristics believe that reinforcements are primarily influenced by other people, social structures, luck, or fate. "Rotter's Internal-External Control Scale" is often adopted to assess whether a person believes he or she is controlled internally or externally. This concept was initially proposed by Rotter (1966). Rotter defines "LOC as a personality factor that helps explain an individual's conduct." This theory is lately interpreted based on events by Angelova (2016), Sundari (2014), Ridwan (2013), Adi et al. (2012), and Menezes (2008).

Aisyah (2021) emphasized the development of teacher knowledge in order to promote competency, namely by enhancing education and training for teachers who were still not at par with the competence level. Quantitative methodologies were applied in this investigation. A variety of factors, both internal and external, influenced the teachers' performance. According to data gathered, Motivation and LOC comes "high," at 53.33 percent. The total cognitive ability score for teachers was 81.92 on average. The performance of permanent teachers is directly impacted by motivation and LOC. In words, permanent instructors perform better when they have higher motivational support and LOC. All signs of cognitive ability are seen to be positive, and markers of motivation of experience, skill, and assessment components are said to be positive in generating the variable motivation and LOC.

In a large sample of parents, a study was conducted to examine the connection between LOC and religious behavior and belief (Nowicki et al., 2020). The goal of this study was to investigate the relationship between self-reported and religious beliefs, attitudes, and behaviors, as well as the LOC of enforcement as directed by Rotter in a large representative population. Individuals with an internal LOC were not only significantly more likely to maintain their religious beliefs and behaviors over a 6-year period compared to those with external orientation, but they were also more likely to admit when a divine power had aided them in the past, ask for help from a divine power in the future, and believe in a deity. Additional exploratory analyses based on gender discovered that internal women were significantly more involved in all indicators of religious belief and action than internal men, with the exception of weekly church attendance and requesting assistance from religious leaders, where internal men were higher.

Daniel and Sapo (2020) did a study to determine the impact of teachers' perceptions of PE on their professionalism. A pilot study was conducted by the researcher using the questionnaire. To determine how instructors perceive their PE codes, qualitative data was evaluated using descriptions, frequency tables, and histograms. Linear regressions were used to examine the role of teachers' perceptions of their code of PE in their professionalism. According to the findings, many teachers believe they are totally compliant with PE, and they believe that their adherence to PE stems from their conscience. Furthermore, the results show that for teachers who attribute the source of their professional, ethical stand to moral obligation, their professionalism is highly influenced by their view.

In 2019, researchers looked at 335 Anatolian high school teachers who worked in the province of Aydin during the academic year 2015–2016 to see how their LOC correlated with a number of other factors. One of the quantitative research tools employed in this study was the "multidimensional LOC scale." According to the findings of the study, teachers primarily displayed an internal LOC control, followed by an external and chance LOC.

Khushk (2019) conducted a study that focused on the effects of internal and external LOC and organizational commitment on employee performance while taking Pakistan's service industry into consideration. The industry taken was Careem (transportation network company). The positive relationship between LOC and organizational commitment to employee performance was shown using Pearson correlation. Inferential research was conducted in order to understand how LOC and organizational commitment affected employee performance. As a consequence of the study, it was discovered that there is little evidence to support the high association between LOC and employee performance, although there is a substantial correlation between organizational commitment and the performance of the employee.

An important study was conducted by Saprudin et al. (2019) to find the relationship between three variables. The understudy independent variables were organizational culture and LOC, whereas the dependent variable was the performance of Bogor Regency Em-

ployees. A survey was conducted for this purpose. Two-way ANOVA was used to analyze the data. The findings revealed that there were positive and significant correlations between these variables, despite the fact that they were controlled by second-order correlations. As a result, it was determined that if performance wants to be improved, the organizational culture and LOC must be taken into account.

Galvin, Randel, Collins, and Johnson (2018) offered a study changing the focus of LOC. In this study, a basic individual difference variable was explicitly investigated. Early studies discovered that LOC was a strong predictor of a range of work-related outcomes, ranging from job attitudes and affect to motivation and conduct. Despite this evidence, the majority of recent organizational research has moved away from looking at LOC as a discrete concept. LOC is instead being studied more and more as a part of the fundamental self-evaluation process. Recent research, however suggests that LOC is a separate concept and that core self-evaluation research should continue without incorporating LOC in future work.

LOC is a theory that elucidates where the person situates the causation of different life events. It was established that internal LOC was related to various aspects of career success. Quantitative and qualitative combined research concept was used to conduct the investigation among LOC, ambition, and students' self-perceived employability. The analysis revealed that career ambition acted as a moderator in the relationship between LOC and employability. Students perceived various opportunities for developing professional skills as external opportunities, whereas as external threats, they perceived limited job market opportunities. To assist university students in developing employability and future career success, university curricula should support the development of future work skills that include career ambition, ways of utilizing external opportunities, and dealing with job market threats.

In the case of teaching as a profession, PE are organized in the teacher's code of ethics. The code of ethics serves as a guide for teachers on how to behave in the classroom. The achievements of teachers in planning, implementing, and evaluating learning activities are referred to as their teaching performance. Kusumaningrum, Sumarsono, and Gunawan (2019) conducted a study on PE and teacher teaching performance, i.e., "measurement of teacher empowerment with a soft system methodology approach." Understudy two variables were PE and the teaching performance of teachers. Pearson Product Moment Correlation was used to test the research hypothesis. It was concluded that there was a positive relationship between PE and the performance of teachers at Junior High School, with a correlation coefficient of 0.498.

Conceptual Framework

Figure 2 shows the simplest way of presenting the overall structure of the study. LOC which was further divided into two parts i.e., internal LOC and external LOC, along with PE, were considered independent variables, whereas the performance of the teachers' was considered a dependent variable.

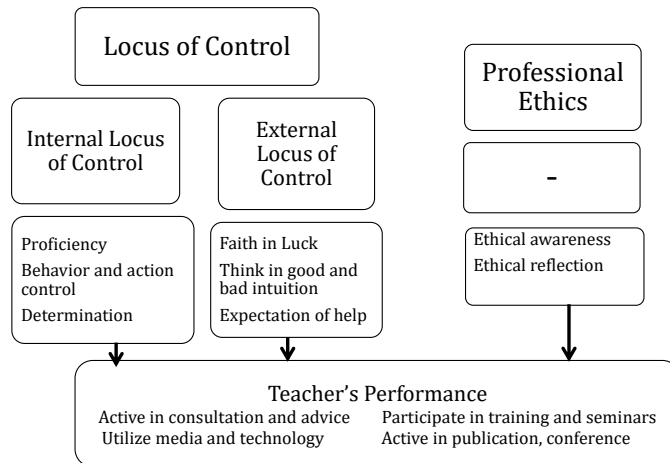


Fig. 2. Conceptual framework of the research

Problem statement

LOC and PE play an imperative function in teachers' performance. This study highlights the effect of LOC and PE on the performance of teachers at the university level.

Research objectives

The research objectives were:

- To identify the effect of LOC on teachers' performance at university level.
- To determine the effect of PE on teacher's performance at university teachers.
- To find out the relationship between LOC and PE on teacher's performance at university teachers.

Research questions

For the achievement of research objectives, the following research questions were framed:

- What is the effect of LOC on teacher performance at the university level?
- How do PE affect teacher performance at the university level?
- What is the relationship between LOC and PE on the performance of university teachers?

Research methodology & design

The quantitative nature of the research methodology was used to know the effect of LOC and PE on university teachers'. A standardized questionnaire Kusuma et al. (2018) was used to determine the effect of LOC on teachers' performance, and a self-developed questionnaire was used to investigate the effect of PE on the performance of teachers.

Population

Male and female university teachers of the Rawalpindi and Islamabad areas were the population of the current study. Figure 3 shows the data sources used for the current study.

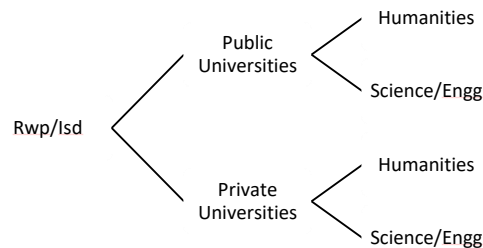


Fig. 3. Data collection sources

Sample and sampling technique

- The sample of this study was taken from ten universities out of 27 universities in the Rawalpindi and Islamabad areas. Universities were selected on the bases of non-random, convenient, and voluntarily sampling techniques.
- The sample was selected on the bases of gender, age, education level, marital status, and experience from both science and humanities faculty.

Research instrument of the study

A closed-ended standardized, and self-developed questionnaire was used to collect data. The questions were designed on a 5-point Likert scale, for which the numerical values were assigned to Strongly Disagree, Disagree, Neutral, Agree, and Strongly Agree as 1, 2, 3, 4, and 5, respectively, to get the response on LOC, PE and performance of teachers.

Questionnaire and data analysis

- Data was collected online using google form as well as researcher's personnel visits to various public and private universities.
- Data was run on SPSS software. Different tools of statistics were used to perform regression/correlation tests. Data was further presented in tabular forms for interpretation.

Ethical consideration

- Research that involves human participants must include appropriate protections to ensure the confidentiality of their data. Researchers took serious steps to preserve the confidentiality of participants and then collected the data from them.
- A standardized questionnaire was taken from the research study already conducted in Indonesia. Prior permission from the author Kusuma, et al. (2019) was requested, and nice of him that he granted the permission to carry out the research in Pakistan.

Major findings

Data were collected for a total of six demographic variables. The main demographic variables which were studied are academic education, experience, and currently serving institute. With the help of these demographic data, a researcher came to know the subject study in more detail. Tables I to IV present the analysis of demographic information.

Table I
Participant gender

Participants	Frequency	%age
a. Male teachers	49	40.2
b. Female teachers	73	59.8
Total	122	100

Table I shows the frequency of male and female teachers as participants in the study. The table depicts that there were 40.2% of male teachers and 59.8% of female teachers participated. It was found that the participation of female teachers was more than compared of teachers.

Table II
Participants age

Age	Frequency	%age
a. Below twenty-five years	14	11.5
b. Between twenty-six to thirty-five years	46	37.7
c. Between thirty-six to forty-five years	42	34.4
d. above forty-six years	20	16.4
Total	122	100

Table II shows the age of the participants under study. The majority of the participants (88 out of 122, 72.1%) had the age bracket of 26-45 years. This shows that majority participated teachers were from young to mid-age.

Table III
Participants qualification

Academic Qualification	Frequency	%age
a. Graduate	34	27.9
b. Post Graduate	59	48.4
c. PhD	29	23.8
Total	122	100

Table III shows the academic qualification of the participant involved in the study. There were 34 participants who had their qualification of Graduate. 59 had postgraduate, and 29 had done Ph.D. It is found that the majority (72.1%) have a high rank of qualification (Postgraduate and Ph.D.).

Table IV
Participants university

Institute Type	Frequency	%age
a. Public University	57	46.8
b. Private University	65	53.2
Total	122	100

Table IV shows the type of university of the participants. The table depicts that there is 57 public (46.8%) and 65 private (53.2%) university teachers helped to conduct the study. Percentage shows that an approximately equal number of public and private university teachers replied to the conducted survey.

Major findings (Objectives a & b)

To work out objectives a & b, an independent *t*-test, *R*-squared (R^2) test, and multi-regression test was performed. Below are the test conducted and the interpretation of their results.

Independent *t*-test

In a situation where we want to see the static evidence that the linked population means differ significantly, we use a *t*-test for Independent Samples. This *t*-test compares the means of two distinct groups. There are many types of a parametric tests under study, and the *t*-test is one of them.

Table V
t-test

<i>t</i> -test	Significance
a. LOC (Internal LOC)	0.012 < 0.05
b. LOC (External LOC)	0.634 > 0.05
c. PE	0.000 < 0.05

Above table V shows the result of the independent samples *t*-test, which was conducted on the understudy variables. Test results show that:

- Internal LOC has a partial effect on the performance of teachers as the significant value is less than 0.05
- External LOC has no partial effect on teacher's performance because a significant value is greater than 0.05
- PE has a partial influence on teacher's performance as a significant value is less than 0.05

***R*-Square test**

R-squared (R^2) is a metric in statistics that quantify the proportion of the variation explained by an independent variable or variables in a regression model for a dependent variable. Figure 4 shows the implementation of R^2 test. In the current research, the R^2 value was calculated as 0.813, which can be interpreted as internal LOC, external LOC, and PE all have an 81.3 percent effect on the performance of teachers, and the remaining portion of the performance of teachers, i.e. 18.7 percent was effected by some other variables. Therefore, the determination coefficient for (R^2) test = 0.813

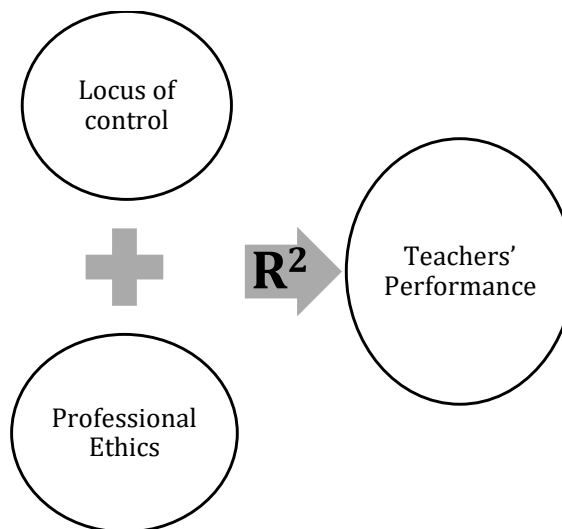


Fig. 4. Implementation of R^2 test

Multi-regression test

Multiple regression is a statistical test approach that has its roots in simple linear regression. Multi regression is a technique that is used if we desire to get the output of a variable on the basis of two or more other variables. The output variable is called the dependent variable, whereas the other variables are called independent variables. The independent variables are also called predictor or explanatory variables.

Table VI
Multi regression test

Regression Test	β	SE	t	Sig
a. Constant	1.358	0.232	6.064	0.000
b. PE	0.612	0.035	16.819	0.000
c. LOC (Internal LOC)	0.104	0.042	2.661	0.012
d. LOC (External LOC)	-0.018	0.037	-0.512	0.634

Results in table VI indicated that:

- a) The PE variable has a significant effect on the performance of teachers. This is inferred from the terms.
 - Coefficient of regression (β) which has the value of 0.612
 - A standard error which has the value of 0.035
 - Effectiveness value (t) as 16.819
 - Significant influence value of 0.000, which is less than 0.05
- b) Internal LOC has a significant effect on the performance of teachers. This is inferred from the terms.
 - Coefficient of regression (β) which has the value of 0.104
 - Standard error, which has the value of 0.042
 - Effectiveness value (t) as 2.661
 - Significant influence value of 0.012, which is less than 0.05
- c) External LOC has no significant effect on the performance of teachers. This is inferred from the terms.
 - Coefficient of regression (β) which has the value of -0.018
 - Standard error, which has the value of 0.037
 - Effectiveness value (t) as -0.512
 - Significant influence value of 0.634, which is greater than 0.05

So it is concluded from the analysis of regression that the standard error value is very low i.e., less than 1, and β , the regression coefficient for PE and internal LOC is positive. In view of the above, we can say internal LOC and PE have a significant effect on the performance of teachers. Furthermore, regression coefficient β and effectiveness value t in external LOC are negative, along with a significant influence value of 0.634, stating that external LOC has no significant effect on the performance of teachers. It is also concluded that PE is the leading variable that has an effect on the performance of the teachers.

In the equation form, we can write the performance of teachers as:

$$Performance\ of\ teachers = 1.358 + 0.612(PE) + 0.104(internal\ LOC) - 0.018(external\ LOC) \tag{1}$$

Major findings (Objective c)

For objective c, the Multicollinearity test was performed to find the relationship between two independent variables.

Multicollinearity test

A multicollinearity test was performed to find the relationship between two independent variables i.e., LOC and PE. From table VII, it is interpreted that the variation inflation factor (VIF) for both the independent variables on each other is less than 10, which has the interpretation that it does not deviate from the classical assumption test.

Table VII
Multicollinearity test

Multicollinearity Test	VIF
a. PE	1.298
b. LOC (Internal LOC)	1.191
c. LOC (External LOC)	1.163

Discussion

27 items questionnaire was floated to get the response from the participants. Seven questions were asked from a LOC area, thirteen questions were from PE, and seven questions were from the teacher's performance category. After compilation the data and applying several statistical tests, it was found that the careers of teachers are supported by certified and recognized competencies. 79.5% of the respondents were agreed that a professional and competent teacher believes that success is highly based on his/her competence as a teacher. 79.5 percent of respondents agreed that a professional and competent teacher feels that success is mostly determined by his or her ability as a teacher. In the community, the teacher is expected to be a role model for society. Therefore, teachers are required to restrain themselves from engaging in any action that may violate ethical, religious, or social conventions. A very large number of participants, 116 (95.1%), endorsed the statement, "a teacher must respect ethical norms in the academic environment."

In order to accomplish performance goals, a teacher is expected to be engaged in teaching and to attend the number of scheduled sessions, as well as to be active in offering guidance and counseling to pupils, and take part in training/seminars and workshops, which are the ways to correct and improve teachers' performance. Compiled that showed that an extremely high number of respondents, 89.4% (109/122) in the conducted survey, believed that a teacher must actively participate in training and seminars for the sake of improving his/her performance. They understand that professional development training is very important, which can help teachers to become better at planning their time and keeping themselves very organized. They are aware that training ultimately makes teachers more competent and well-organized and gives them extra time to focus on students. To maximize their performance, they must grasp and be adept in the use of technology-based teaching media, which is the primary requirement, to prepare teaching material completely and frequently, as well as update the teaching material, and be active in meeting the workload.

The primary responsibility of teachers is to participate in the trusted publication of both national and international level conferences, and community services, which are essential for a professional teacher. A teacher must be deeply committed to his profession in order to support professional requirements, including adhering to ethical principles in the academic setting, such as being truthful in presenting research findings and information and avoiding plagiarism in research and publication, as well as in socialization. 89.4% of respondents agreed that PE has a positive relationship with professionalism. Active participation in a professional cluster is also recommended in order to increase performance through networking and collaboration, which allows for the sharing of information and experience. 90 (73.7%) respondents out of a total number of 122 had a positive opinion towards the statement that "a professional teacher should be engaged in publishing the research papers, conference attending, research and community involvement. These factors make the differentiation between productive and ineffective teachers."

Conclusion

By applying the various tests to the respondent data, we have determined that internal LOC and PE have a positive and significant effect on the performance of teachers as having a significance value of less than 0.05, while external LOC has no significant effect on the performance of teachers due to greater the significance value. R^2 test stated that teachers' performance due to internal LOC, external LOC, and PE all have an 81.3 percent effect on the performance of teachers' and the remaining portion of the performance of teachers' i.e., 18.7 percent, was affected by some other variables. Multi-regression test gave us the overall picture of teacher's performance and showed PE is the leading variable that has an effect on the performance of the teachers. The Inflation Factor (VIF) for both the independent variables on each other is less than 10, which shows there are no multicollinearity issues.

Limitations

There are certain limitations to this research. First and foremost, the study was undertaken in two regions (Islamabad & Rawalpindi), with the possibility of expanding it to more cities across the country or the province, at least in the future. Secondly, the research was descriptive and quantitative in nature. It can be more beneficial if it includes qualitative research as well. A mixed type of research can be more beneficial for understanding the effect of independent variables on a dependent variable. Thirdly, if we expand the research span from university to school level, we can get a large population and hence the sample size accordingly.

REFERENCES

- Adi, K., Saputra, K., & Ganesha, U.P. (2012). The effect of locus of control on the performance and job satisfaction of internal auditors with moderation. *Multiparadigm Accounting Journal*, 3(1), 86-100. <https://doi.org/10.18202/jamal.2012.04.7146>
- Ahluwalia, A. K. & Preet, K. (2017). Work motivation, organizational commitment and locus of control work experience amongst university teachers. *Samvad*, 14, 26-33. <https://doi.org/10.53739/samvad/2017/v14/118113>
- Aisyah, N. (2021). Influence of Achievement Motivation and Locus of Control Towards Competence of Lecturer Performance in AKUBANK ICM Cantrika Mitra Medan. *Analytica: Journal of Master of Psychology UMA*, 13(1), 74-82. <https://doi.org/10.31289/analitika.v13i1.5030>
- Virmozelova Angelova, N. (2016). Locus of control and its relationship with some social-demographic factors. *Psychological Thought*, 9(2), 248-258. <https://doi.org/10.23668/psycharchives.1987>
- Bojnord, I. (2021). The effect of education based on the locus of control theory on knowledge and behaviors of puberty and reproductive health of the junior high school students in Farooj. *Journal of Health*, 11(5), 744-755. <https://10.52547/j.health.11.5.744>
- Daniel, W., & Sapo, S. (2020). Teachers' perception of professional ethics and its impact on their professionalism. *American Journal of Educational Research*, 8(6), 400-410. <https://10.12691/education-8-6-6>
- Galvin, B. M., Randel, A. E., Collins, B. J., & Johnson, R. E. (2018). Changing the focus of locus (of control): A targeted review of the locus of control literature and agenda for future research. *Journal of Organizational Behavior*, 39(7), 820-833. <https://doi.org/10.1002/job.2275>
- Gam, R. P. (2018). Teachers' experiences in handling students with learning difficulty. *International Journal of Humanities, Arts and Social Sciences*, 4(4), 179-185. <https://dx.doi.org/10.20469/ijhss.4.10003-4>
- Iles-Caven, Y., Gregory, S., Ellis, G., Golding, J., & Nowicki, S. (2020). The relationship between locus of control and religious behavior and beliefs in a large population of parents: An observational study. *Frontiers in Psychology*, 11, 1-10. <https://doi.org/10.3389/fpsyg.2020.01462>
- Ćurić Dražić, M., Petrović, I. B., & Vukelić, M. (2018). Career ambition as a way of understanding the relation between locus of control and self-perceived employability among psychology students. *Frontiers in Psychology*, 9, 1729. <https://doi.org/10.3389/fpsyg.2018.01729>
- Khushk, A. A., & Works, P. (2019). Impact of locus of control (LOC) and organizational commitment on employee performance-study of service sector, Pakistan. *International Journal of Law and Peace Works*, 6(5), 1-6.
- Kiral, B. (2019). Exploring the relationship between teachers' locus of control with different variables. *Educational Policy Analysis and Strategic Research*, 14(2), 88-104. <https://doi.org/10.29329/epasr.2019.201.5>
- Kusuma, A. H. P., Rina, R., & Syam, A. H. (2018). The main role of locus of control and professional ethics on lecturer's performance (Indonesian lecturer empirical study). *International Review of Management and Marketing*, 8(5), 9-17.
- Kusumaningrum, D. E., Sumarsono, R. B., & Gunawan, I. (2019). Professional ethics and teacher teaching performance: Measurement of teacher empowerment with a soft system methodology approach. *International Journal of Innovation, Creativity and Change*, 5(4), 611-624.
- Menezes, A. A. (2008). *Analysis of the impact of locus of control on performance and job satisfaction of internal auditors (Research on Internal Auditors in Central Java)* (Doctoral dissertation). Semarang, Indonesia: Diponegoro University.
- AISYAH, N. (2021). *DEVELOPING DAILY EXPRESSION POCKETBOOK FOR ISLAMIC BOARDING SCHOOL STUDENTS AT MUHAMMADIYAH BOARDING SCHOOL PUTRA PALOPO* (Doctoral dissertation, STATE ISLAMIC INSTITUTE).
- Ridwan, R. (2013). The Role of Islamic Work Ethics on the Relationship of Locus of Control with Employee Performance. *Trichonomics*, 12(1), 72-84. <http://dx.doi.org/10.23969/trikononika.v12i1.461>
- Rotter, J. (1966). *Social learning and clinical psychology*. New York, NY: Prentice-Hall. p466.
- Sherpa, K. (2018). Importance of professional ethics for teachers. *International Education and Research Journal*, 4(3), 16-18.
- Saprudin, S., Rosyaty, T., & Syukron, A. (2019). Relationship between organizational culture and locus of control with Bogor Regency employee performance. *International Review of Management and Marketing*, 9(4), 143. <https://doi.org/10.32479/irmm.8171>
- Sundari, Y. (2014). *Locus of control on husband wife couples who are pregnant before marriage* (Doctoral dissertation). Sultan Sarif Kasim State Islamic University, Riau, Indonesia